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List of publications of AIIMS, New Delhi for the month of September, 2019 [Source: www.pubmed.com].

1: Abbey P, Kandasamy D, Naranje P. Neonatal Jaundice. Indian J Pediatr. 2019 Sep;86(9):830-841. doi: 10.1007/s12098-019-02856-0. Epub 2019 Feb 21. PubMed PMID: 30790186.

Hyperbilirubinemia is a common occurrence in neonates; it may be physiological or pathological. Conjugated hyperbilirubinemia may result from medical or surgical causes, and can result in irreversible liver damage if untreated. The aim of imaging is the timely diagnosis of surgical conditions like biliary atresia and choledochal cysts. Abdominal ultrasound is the first line imaging modality, and Magnetic resonance cholangiopancreatography (MRCP) also has a role, especially in pre-operative assessment of choledochal cysts (CDCs). For biliary atresia, the triangular cord sign and gallbladder abnormalities are the two most useful ultrasound features, with a combined sensitivity of 95%. Liver biopsy has an important role in pre-operative evaluation; however, the gold standard for diagnosis of biliary atresia remains an intra-operative cholangiogram. Choledochal cysts are classified into types according to the number, location, extent and morphology of the areas of cystic dilatation. They are often associated with an abnormal pancreaticobiliary junction, which is best assessed on MRCP. Caroli's disease or type 5 CDC comprises of multiple intrahepatic cysts. CDCs, though benign, require surgery as they may be associated with complications like cholelithiasis, cholangitis and development of malignancy. Severe unconjugated hyperbilirubinemia puts neonates at high risk of developing bilirubin induced brain injury, which may be acute or chronic. Magnetic resonance imaging of the brain is the preferred modality for evaluation, and shows characteristic involvement of the globus pallidi, subthalamic nuclei and cerebellum - in acute cases, these areas show T1 hyperintensity, while chronic cases typically show hyperintensity on T2 weighted images.

DOI: 10.1007/s12098-019-02856-0
PMID: 30790186

2: Agarwal A, Garg D, Goyal V, Pandit AK, Srivastava AK, Srivastava MP. Optic neuritis following anti-rabies vaccine. Trop Doct. 2020 Jan;50(1):85-86. doi: 10.1177/0049475519872370. Epub 2019 Sep 7. PubMed PMID: 31495273.

Neurological complications related to anti-rabies vaccine are uncommon. The involvement of the optic nerve is extremely rare. It has been occasionally reported after Semple's vaccine administration due to the presence of highly antigenic sheep brain tissue in the vaccine. To our knowledge, this is the first case report of optic neuritis after chick embryo-derived anti-rabies vaccine.

DOI: 10.1177/0049475519872370
PMID: 31495273

3: Agarwal A, Parekh N, Panner Selvam MK, Henkel R, Shah R, Homa ST, Ramasamy R, Ko E, Tremellen K, Esteves S, Majzoub A, Alvarez JG, Gardner DK, Jayasena CN, Ramsay JW, Cho CL, Saleh R, Sakkas D, Hotaling JM, Lundy SD, Vij S, Marmar J, Gosalvez J, Sabanegh E, Park HJ, Zini A, Kavoussi P, Micic S, Smith R, Busetto GM, BakÄ±rcÄ±oÄŸlu ME, Haidl G, Balercia G, Puchalt NG, Ben-Khalifa M, Tadros N, Kirkman-Browne J, Moskovtsev S, Huang X, Borges E, Franken D, Bar-Chama N, Morimoto Y, Tomita K, Srini VS, Ombelet W, Baldi E, Muratori M, Yumura Y, La Vignera S, Kosgi R, Martinez MP, Evenson DP, Zylbersztejn DS, Roque M, Cocuzza M, Vieira M, Ben-Meir A, Orvieto R, Levitas E, Wiser A, Arafa M, Malhotra V,

Parekattil SJ, Elbardisi H, Carvalho L, Dada R, Sifer C, Talwar P, Gudeloglu A, Mahmoud AMA, Terras K, Yazbeck C, Nebojsa B, Durairajanayagam D, Mounir A, Kahn LG, Baskaran S, Pai RD, Paoli D, Leisegang K, Moein MR, Malik S, Yaman O, Samanta L, Bayane F, Jindal SK, Kendirci M, Altay B, Perovic D, Harlev A. Male Oxidative Stress Infertility (MOSI): Proposed Terminology and Clinical Practice Guidelines for Management of Idiopathic Male Infertility. World J Mens Health. 2019 Sep;37(3):296-312. doi: 10.5534/wjmh.190055. Epub 2019 May 28. Review. PubMed PMID: 31081299; PubMed Central PMCID: PMC6704307.

Despite advances in the field of male reproductive health, idiopathic male infertility, in which a man has altered semen characteristics without an identifiable cause and there is no female factor infertility, remains a challenging condition to diagnose and manage. Increasing evidence suggests that oxidative stress (OS) plays an independent role in the etiology of male infertility, with 30% to 80% of infertile men having elevated seminal reactive oxygen species levels. OS can negatively affect fertility via a number of pathways, including interference with capacitation and possible damage to sperm membrane and DNA, which may impair the sperm's potential to fertilize an egg and develop into a healthy embryo. Adequate evaluation of male reproductive potential should therefore include an assessment of sperm OS. We propose the term Male Oxidative Stress Infertility, or MOSI, as a novel descriptor for infertile men with abnormal semen characteristics and OS, including many patients who were previously classified as having idiopathic male infertility. Oxidation-reduction potential (ORP) can be a useful clinical biomarker for the classification of MOSI, as it takes into account the levels of both oxidants and reductants (antioxidants). Current treatment protocols for OS, including the use of antioxidants, are not evidence-based and have the potential for complications and increased healthcare-related expenditures. Utilizing an easy, reproducible, and cost-effective test to measure ORP may provide a more targeted, reliable approach for administering antioxidant therapy while minimizing the risk of antioxidant overdose. With the increasing awareness and understanding of MOSI as a distinct male infertility diagnosis, future research endeavors can facilitate the development of evidence-based treatments that target its underlying cause.

DOI: 10.5534/wjmh.190055
PMCID: PMC6704307
PMID: 31081299

4: Agarwal N, Kale SS, Kumari K. Tumor-induced Osteomalacia due to a Phosphaturic Mesenchymal Tumor in the Cervical Spine: A Case Report and Literature Review. Neurol India. 2019 Sep-Oct;67(5):1334-1340. doi: 10.4103/0028-3886.271274. PubMed PMID: 31744971.

Tumor-induced osteomalacia (TIO) is a rare paraneoplastic syndrome of certain mesenchymal tumors which secrete fibroblast growth factor-23 (FGF-23) responsible for causing features of hypophosphatemia and osteomalacia in these patients. Most of them involve the appendicular skeleton and occasionally the craniofacial regions. Involvement of spine is exceedingly rare. Through this paper, the authors present a rare case of a 71-year-old male with TIO due to a lesion in the cervical spine (right C2 lamina) which was proven to be a phosphaturic mesenchymal tumor-mixed connective tissue type on histopathology. This is the

fifth reported case of TIO localized to the cervical spine. The patient underwent a hemilaminectomy and gross total resection of the tumor following which he made a gradual but steady recovery and does not have any recurrence 24 months after surgery. The authors not only provide a comprehensive literature review of all 18 spinal cases reported till date but also discuss the management of these patients in light of the published literature.

DOI: 10.4103/0028-3886.271274
PMID: 31744971

5: Agarwal N, Dutta Satyarthee G. Symptomatic Diffuse Vasospasm After Resection of Temporal Ganglioglioma: Review of the Literature with Case Illustration. World Neurosurg. 2019 Dec;132:230-235. doi: 10.1016/j.wneu.2019.08.239. Epub 2019 Sep 7. Review. PubMed PMID: 31505290.

BACKGROUND: Symptomatic cerebral vasospasm may occur in the setting of aneurysmal subarachnoid hemorrhage, traumatic brain injury, or after anterior skull base surgery, but its occurrence is extremely rare in the background of glioma surgical resection.
CASE DESCRIPTION: We present a rare case of symptomatic diffuse vasospasm, which is the fourth reported case of symptomatic vasospasm after temporal lobectomy and the third in the setting of a glial tumor. This patient, a 10-year-old boy, developed bilateral, progressive cerebral infarcts because of diffuse vasospasm after anteromesial temporal lobectomy for a left temporal ganglioglioma leading to significant morbidity.
CONCLUSIONS: The risk factors, likely pathogenesis and the importance of early diagnosis and timely institution of treatment, in such cases are discussed in the background of relevant literature. The current case represents the first report of symptomatic diffuse vasospasm occuring after surgical resection of intracranial ganglioglioma in the Western literature.

DOI: 10.1016/j.wneu.2019.08.239
PMID: 31505290 [Indexed for MEDLINE]

6: Agarwal R, Tripathi M, Patil A, Sharma N. Rare atypical presentation of phacolytic glaucoma as non-resolving microbial keratitis with endophthalmitis. BMJ Case Rep. 2019 Sep 16;12(9). pii: e231616. doi: 10.1136/bcr-2019-231616. PubMed PMID: 31527222.

Phacolytic glaucoma (PLG) is a rare complication of hypermature senile cataract. Delayed presentation of PLG may make its diagnosis and management difficult and worsen its prognosis. A woman aged 75 years complaining of sleep disturbing pain and inaccurate projection of rays oculus dextrus (OD) was referred to our centre for management of non-resolving microbial keratitis with endophthalmitis. Ultrasound biomicroscopy revealed 360° peripheral anterior synechiae, swollen crystalline lens and hyperechoic granules filling anterior chamber. A diagnosis of PLG and lens-induced uveitis was made and cataract was extracted after control of intraocular pressure (IOP). The patient was left aphakic. There was complete resolution of pain after surgery and at 3 months follow-up the IOP was controlled without any antiglaucoma medications. Rarely, secondary corneal opacification from long-standing pathological changes in PLG may mimic non-resolving microbial

keratitis with endophthalmitis and requires a high index of suspicion for appropriate diagnosis and management.

DOI: 10.1136/bcr-2019-231616
PMID: 31527222

7: Aggarwal S, Verma SS, Aggarwal S, Gupta SC. Drug repurposing for breast cancer therapy: Old weapon for new battle. Semin Cancer Biol. 2019 Sep 21. pii: S1044-579X(19)30294-9. doi: 10.1016/j.semcancer.2019.09.012. [Epub ahead of print] Review. PubMed PMID: 31550502.

Despite tremendous resources being invested in prevention and treatment, breast cancer remains a leading cause of cancer deaths in women globally. The available treatment modalities are very costly and produces severe side effects. Drug repurposing that relate to new uses for old drugs has emerged as a novel approach for drug development. Repositioning of old, clinically approved, off patent non-cancer drugs with known targets, into newer indication is like using old weapons for new battle. The advances in genomics, proteomics and information computational biology has facilitated the process of drug repurposing. Repositioning approach not only fastens the process of drug development but also offers more effective, cheaper, safer drugs with lesser/known side effects. During the last decade, drugs such as alkylating agents, anthracyclins, antimetabolite, CDK4/6 inhibitor, aromatase inhibitor, mTOR inhibitor and mitotic inhibitors has been repositioned for breast cancer treatment. The repositioned drugs have been successfully used for the treatment of most aggressive triple negative breast cancer. The literature review suggest that serendipity plays a major role in the drug development. This article describes the comprehensive overview of the current scenario of drug repurposing for the breast cancer treatment. The strategies as well as several examples of repurposed drugs are provided. The challenges associated with drug repurposing are discussed.

DOI: 10.1016/j.semcancer.2019.09.012
PMID: 31550502

8: Agrawal D, Garg K. Microscissor DREZotomy - A New Way for 'Atraumatic Lesioning' of DREZ. Neurol India. 2019 Sep-Oct;67(5):1320-1322. doi: 10.4103/0028-3886.271271. PubMed PMID: 31744967.

Background and Aims: Dorsal root entry zone (DREZ) lesioning is a widely-used procedure for neuropathic pain which is refractory to other modes of treatment. However, all current techniques depend on thermal or radiofrequency (RF) lesioning of the DREZ. The authors describe a new technique in which mechanical lesioning of DREZ using microscissors.
Methods: The authors describe their technique of only using straight microscissors for the whole procedure of DREZotomy. No cautery is used except for hemostasis.
Results: Our technique is a continuing evolution of the original DREZotomy described by Nashold and Sindou, and appears more atraumatic and simpler.

Conclusion: Microscissor DREZotomy appears to be the most atraumatic way of carrying out DREZ lesioning and overcomes the disadvantages of other methods like thermal and RF lesioning.

DOI: 10.4103/0028-3886.271271
PMID: 31744967

9: Agrawal M, Dharanipathy S, Nakra T, Garg K, Gurjar H, Mishra S, Singh M, Chandra PS. Supratentorial Neurenteric Cyst: A Rare Differential for a Frontal Cyst. World Neurosurg. 2019 Sep;129:140-142. doi: 10.1016/j.wneu.2019.05.246. Epub 2019 Jun 7. PubMed PMID: 31426248.

Supratentorial neurenteric cyst is a rare entity. They are usually isointense to slightly hyperintense on T1W images and hyperintense on T2-weighted/fluid attenuated inversion recovery images. There was a diagnostic dilemma in this case due to the cerebrospinal fluid intensity of the cyst on magnetic resonance imaging. Postoperative residual lesion predisposes to hemorrhage and seizures.

DOI: 10.1016/j.wneu.2019.05.246
PMID: 31426248 [Indexed for MEDLINE]

10: Ahuja D, Jain K, Vig S, Bharati SJ. Unusual Complication After TTE: a Simple Management. Indian J Surg Oncol. 2019 Sep;10(3):437-438. doi: 10.1007/s13193-019-00889-7. Epub 2019 Feb 23. PubMed PMID: 31496585; PubMed Central PMCID: PMC6708007.

11: Anand V, Khandelwal M, Appunni S, Gupta N, Seth A, Singh P, Mathur S, Sharma A. CD44 splice variant (CD44v3) promotes progression of urothelial carcinoma of bladder through Akt/ERK/STAT3 pathways: novel therapeutic approach. J Cancer Res Clin Oncol. 2019 Nov;145(11):2649-2661. doi: 10.1007/s00432-019-03024-9. Epub 2019 Sep 16. PubMed PMID: 31529191.

PURPOSE: The incidence of Urothelial carcinoma of bladder (UBC) is gradually increasing by changing lifestyle and environment. The development of a tumor has been noted to be accompanied by modifications in the extracellular matrix (ECM) consisting of CD44, hyaluronic acid (HA) and its family members. The importance of CD44 splice variants and HA family members has been studied in UBC.
METHODS: The cohort of study included 50 UBC patients undergoing radical cystectomy and 50 healthy subjects. The molecular expression of CD44 and HA family members was determined. Effect of CD44 variant-specific silencing on downstream signaling in HT1376 cells was investigated. Combinatorial treatment of 4-MU (4-methylumbelliferone) with cisplatin or doxorubicin on chemosensitivity was also explored.
RESULTS: Higher expression of HA, HAS2, and CD44 was observed in Indian UBC patients which also showed the trend with severity of disease. Splice variant assessment of CD44 demonstrated the distinct role of CD44v3 and CD44v6 in bladder cancer progression. shRNA-mediated downregulation of CD44v3 showed an increase effect on cell cycle, apoptosis and multiple downstream signaling cascade including pAkt, pERK and pSTAT3. Furthermore, 4-MU, an HA synthesis inhibitor, observed to complement the effect of Cisplatin or Doxorubicin by enhancing the

chemosensitivity of bladder cancer cells.
CONCLUSIONS: Our findings exhibit involvement of CD44 splice variants and HA family members in UBC and significance of 4-MU in enhancing chemosensitivity suggesting their novel therapeutic importance in disease therapeutics.

DOI: 10.1007/s00432-019-03024-9
PMID: 31529191 [Indexed for MEDLINE]

12: Andrabi M, Andrabi MM, Kunjunni R, Sriwastva MK, Bose S, Sagar R, Srivastava AK, Mathur R, Jain S, Subbiah V. Lithium acts to modulate abnormalities at behavioral, cellular, and molecular levels in sleep deprivation-induced mania-like behavior. Bipolar Disord. 2019 Sep 19. doi: 10.1111/bdi.12838. [Epub ahead of print] PubMed PMID: 31535429.

BACKGROUND: Ample amount of data suggests role of rapid eye movement (REM) sleep deprivation as the cause and effect of mania. Studies have also suggested disrupted circadian rhythms contributing to the pathophysiology of mood disorders, including bipolar disorder. However, studies pertaining to circadian genes and effect of lithium treatment on clock genes are scant. Thus, we wanted to determine the effects of REM sleep deprivation on expression of core clock genes and determine whether epigenetics is involved. Next, we wanted to explore ultrastructural abnormalities in the hippocampus. Moreover, we were interested to determine oxidative stress, tumor necrosis factor-α (TNF-α), and brain-derived neurotrophic factor levels in the central and peripheral systems.
METHODS: Rats were sleep deprived by the flower pot method and were then analyzed for various behaviors and biochemical tests. Lithium was supplemented in diet.
RESULTS: We found that REM sleep deprivation resulted in hyperactivity, reduction in anxiety-like behavior, and abnormal dyadic social interaction. Some of these behaviors were sensitive to lithium. REM sleep deprivation also altered circadian gene expression and caused significant imbalance between histone acetyl transferase/histone deacetylase (HAT/HDAC) activity. Ultrastructural analysis revealed various cellular abnormalities. Lipid peroxidation and increased TNF-α levels suggested oxidative stress and ongoing inflammation. Circadian clock genes were differentially modulated with lithium treatment and HAT/HDAC imbalance was partially prevented. Moreover, lithium treatment prevented myelin fragmentation, disrupted vasculature, necrosis, inflammation, and lipid peroxidation, and partially prevented mitochondrial damage and apoptosis.
CONCLUSIONS: Taken together, these results suggest plethora of abnormalities in the brain following REM sleep deprivation, many of these changes in the brain may be target of lithium's mechanism of action.

DOI: 10.1111/bdi.12838
PMID: 31535429

13: Anuragi RP, Lakshmy R, Bhardwaj DN, Bharti DR, Sikary AK, Behera C. Association of lipid profile with completed suicides: A hospital-based case-control study. Asian J Psychiatr. 2019 Dec;46:19-20. doi: 10.1016/j.ajp.2019.09.028. Epub 2019 Sep 27. PubMed PMID: 31586796.

14: Arora S, Madan K, Mohan A, Kalaivani M, Guleria R. Serum inflammatory markers

and nutritional status in patients with stable chronic obstructive pulmonary disease. Lung India. 2019 Sep-Oct;36(5):393-398. doi: 10.4103/lungindia.lungindia_494_18. PubMed PMID: 31464210; PubMed Central PMCID: PMC6710956.

Background: Chronic obstructive pulmonary disease (COPD) is a systemic inflammatory disease. We investigated whether serum inflammatory markers, C-reactive protein (CRP), leptin, and nutritional status (assessed by measurement of serum levels of prealbumin and anthropometry) correlated with COPD severity. Materials and Methods: One-hundred and two COPD patients (mean age 56.94 ± 10.95 years) were recruited and classified into severity categories based on the GOLD guidelines. Serum concentrations of CRP, prealbumin, and leptin were measured. Anthropometry included body mass index (BMI), mid-upper arm circumference (MUAC), and sum of four skinfold thicknesses (triceps, biceps, suprailiac, and subscapular).
Results: Twenty-one patients had moderate, 44 had severe, and 37 had very severe COPD. Levels of CRP (mg/dl) (mean ± standard error [SE]) in moderate, severe, and very severe COPD were 0.60 ± 0.096, 2.16 ± 0.39, and 4.15 ± 0.463, respectively. Levels of prealbumin (mg/dl) (mean ± SE) in moderate, severe, and very severe COPD were 15.7 3 ± 0.92, 10.95 ± 0.85, and 11.15 ± 0.79 mg/dl, respectively. Levels of leptin (ng/ml) (mean ± SE) in moderate, severe, and very severe COPD were 13.81 ± 3.88, 8.45 ± 2.25, and 4.40 ± 1.06, respectively. BMI values in the three groups were 23.44 ± 1.16 kg/m2, 20.33 ± 0.62 kg/m2, and 18.86 ± 0.52 kg/m2, respectively. Sum of four skinfold thickness and MUAC was significantly reduced in very severe group as compared to moderate and severe group. Very severe COPD patients had a significantly lower leptin, BMI, and 6-min walk test. Serum CRP was significantly higher in very severe COPD.
Conclusion: Patients with increasing severity of COPD had a significantly greater serum inflammatory marker level and poorer nutritional status.

DOI: 10.4103/lungindia.lungindia_494_18
PMCID: PMC6710956
PMID: 31464210

15: Ayub A, Talawar P, Gupta SK, Kumar R, Alam A. Erector spinae plane block: A safe, simple and effective alternative for knee surgery. Anaesth Intensive Care. 2019 Sep;47(5):469-471. doi: 10.1177/0310057X19877655. Epub 2019 Nov 4. PubMed PMID: 31684742.

16: Baidya A, Kodan P, Fazal F, Tsering S, Menon PR, Jorwal P, Chowdhury UK. Stenotrophomonas maltophilia: More than Just a Colonizer! Indian J Crit Care Med. 2019 Sep;23(9):434-436. doi: 10.5005/jp-journals-10071-23241. PubMed PMID: 31645832; PubMed Central PMCID: PMC6775712.

Stenotrophomonas maltophilia is an emerging gram-negative pathogen that was previously labeled as a colonizer. Nowadays, with multiple antibiotic usage along with certain host factors, infections caused by this organism are getting attention. We hereby report two cases of ventilator-associated pneumonia in postoperative infants by Stenotrophomonas maltophilia in a cardiac intensive care unit (ICU). How to cite this article: Baidya A, Kodan P, Fazal F, Tsering S, Menon RP, Jorwal P, et al. Stenotrophomonas maltophilia: More than Just a Colonizer! Indian J Crit Care Med 2019;23(9):434-436.

DOI: 10.5005/jp-journals-10071-23241
PMCID: PMC6775712
PMID: 31645832

17: Bajpai V, Govindaswamy A, Sagar S, Kumar S, Garg P, Xess I, Malhotra R, Mathur P. Multidrug-Resistant Candida auris Fungemia in Critical Care Units: Experience from a Tertiary Care Hospital in India. Microb Drug Resist. 2019 Sep 20. doi: 10.1089/mdr.2019.0021. [Epub ahead of print] PubMed PMID: 31539300.

Candida auris, a recently identified multiresistant Candida species, was first reported in Japan in 2009. It is different from other pathogenic yeast species because of its propensity to cause outbreaks and transmits between patients within health care settings. The invasive infections caused by C. auris are associated with high mortality rates, approaching 70% particularly in intensive care unit patients. Conventional biochemical methods are inaccurate in identifying this species of Candida. Although C. auris is frequently reported as multi-, extended-, or pan drug resistant to antifungal drugs, there is a wide variability in the susceptibility among reports worldwide. In this study we report a case series of five hospitalized patients with multidrug-resistant candidemia caused by C. auris in a tertiary hospital in India. Our finding suggests that correct identification followed by therapeutic intervention is necessary for favorable outcome in patients with C. auris fungemia.

DOI: 10.1089/mdr.2019.0021
PMID: 31539300

18: Balhara YPS, Anwar N. BehavioR: a digital platform for prevention and management of behavioural addictions. WHO South East Asia J Public Health. 2019 Sep;8(2):101-103. doi: 10.4103/2224-3151.264854. PubMed PMID: 31441445.

Behavioural addictions have been identified as an emerging public health problem. The unprecedented pace of the digital revolution, resulting in an ever-increasing use of internet-based technologies, provides the opportunity to create a unique resource to assist in offering public health interventions in the World Health Organization South-East Asia Region. The ability to deliver evidence-based treatment and preventive programmes that can be accessed by mobile phones, for example, increases access to a wide range of populations, including hidden or hard-to-reach populations. BehavioR (the Behavioral addictions Resource hub) has been established with the aim of offering a one-stop resource centre for behavioural addictions. The expected end-users of this digital platform include patients, caregivers, the general public, health-care providers, academics, researchers and policy-makers. The platform can be used to offer digital health interventions to patients; strengthen the capacity of health-care providers for early detection of, screening for, intervention in and management of behavioural addictions; and serve as an online repository for reliable information on behavioural addictions for the general public.

DOI: 10.4103/2224-3151.264854
PMID: 31441445

19: Bansal D, Kumar R. Percutaneous ablation for renal masses. Ann Transl Med. 2019 Sep;7(Suppl 6):S174. doi: 10.21037/atm.2019.07.96. PubMed PMID: 31656753; PubMed Central PMCID: PMC6789340.

20: Behera P, Sn L, Khurana A, Meena UK, Gopinathan NR. Can Three Screws and a Fibula be a Viable Treatment for Managing Neglected Femoral Neck Fracture in Trans-Femoral Amputees? - A Report of Two Cases. Cureus. 2019 Sep 17;11(9):e5682. doi: 10.7759/cureus.5682. PubMed PMID: 31720151; PubMed Central PMCID: PMC6823007.

Management of neglected femoral neck fracture in a trans-femoral amputee is difficult and challenging. There are limited options available for management of such a fracture. While arthroplasty (hemi or total) can be offered in older individuals, young patients should be offered an attempt of salvage of their native hips. Neglected femoral neck fracture in two young male patients who were trans-femoral amputees was managed by fixation through a Watson-Jones approach. Strategically placed Schanz screws and K-wires were used as joysticks for obtaining reduction and three 6.5mm cannulated screws were placed in a triangular fashion. An augmentation of the fixation was done with free fibula autograft placed in the center of the triangle. Union was achieved in both the cases. Patients were pain-free at the latest follow-up visit. Meticulous clinical and radiological evaluation is mandatory in multiply injured patients to avoid missing fractures. Fixation of neglected femoral neck fractures in young transfemoral amputees with three screws and a fibula can be considered a viable alternative to valgus osteotomy in cases where the stump is small for successful placement of the implant and where implant availability is an issue or the surgeon is comfortable in using screws and fibula for non-unions of femoral neck.

DOI: 10.7759/cureus.5682
PMCID: PMC6823007
PMID: 31720151

21: Bhari N, Bharti P. Dystrophic calcinosis cutis in autosomal recessive dystrophic epidermolysis bullosa. BMJ Case Rep. 2019 Sep 20;12(9). pii: e231287. doi: 10.1136/bcr-2019-231287. PubMed PMID: 31540927.

A 6-year-old girl presented with a history of blistering and scarring in trauma-prone areas. On examination, calcium deposits were seen on bilateral palms and soles within her non-healing wounds. Clinical, genetic and radiological evaluation confirmed the diagnosis of autosomal recessive dystrophic epidermolysis bullosa with dystrophic calcification. The patient was started on topical 10% sodium thiosulfate for her calcinosis cutis. Identification and management of dystrophic calcification are important as it impairs wound healing.

DOI: 10.1136/bcr-2019-231287
PMID: 31540927

22: Bhasin A, Srivastava MVP, Vivekanandhan S, Moganty R, Talwar T, Sharma S, Kuthiala N, Kumaran S, Bhatia R. Vascular Endothelial Growth Factor as Predictive Biomarker for Stroke Severity and Outcome; An Evaluation of a New Clinical Module in Acute Ischemic Stroke. Neurol India. 2019 Sep-Oct;67(5):1280-1285. doi: 10.4103/0028-3886.271241. PubMed PMID: 31744959.

Background: The need to study prognosis after incidence of acute ischemic stroke (AIS) has fueled researchers to identify predictors apart from neurological, functional, or disability measures. The purpose of this study was to test and validate a newly developed clinico-biomarker assessment module in AIS and also to investigate the role of serum vascular endothelial growth factor (VEGF) after AIS.
Materials and Methods: A randomized controlled study with sample size of 250 patients suffering from AIS within 2 weeks of the index event were conducted and followed up for a period of three months. Age, gender, stroke subtype, previous stroke history, dysarthria, stroke localization, wakeup strokes, and Glasgow Coma Scale (GCS) were dichotomized as present or absent using the National Institute of Health Stroke Scale (NIHSS) which consists of four subcategories. The additional serum VEGF was scored between 1 and 4 (0-200 = 1, 200-300 = 2, 300-400 = 3, and 400-500 = 4). All these were summed under a clinical biomarker (CB) module with highest score of 30.
Results: The mean VEGF in 125 patients was 378.4 + 98.9 pg/ml, indicating a moderately high increase with a score of 3 on CB module. Multiple regression analysis revealed that the CB model was fit to predict prognosis and severity [R2 = 0.86, F (23.4, 6);P = 0.001], with NIHSS subscore, prestroke status, and VEGF being very strong predictors. When only the clinical module was tested on all 250 patients, it was found that the NIHSS subscore, time to stroke onset and prestroke functional status were the most common [R2 = 0.79; F (45,9);P = 0.005].
Conclusion: This study demonstrates that VEGF is highly upregulated in AIS with severe disability as compared to healthy controls. This biomarker is a strong predictor of severity and functionality when combined with clinical variables three months post the ishemic event.

DOI: 10.4103/0028-3886.271241
PMID: 31744959

Conflict of interest statement: None

23: Bhaskaran K, Shashni AK, Sharma P, Saxena R, Phuljhele S. Combined resection-recession in true divergence excess sensory exotropia. J AAPOS. 2019 Oct;23(5):258.e1-258.e4. doi: 10.1016/j.jaapos.2019.06.009. Epub 2019 Sep 16. PubMed PMID: 31536819.

PURPOSE: To assess the effect of combined resection and recession on the same lateral rectus muscle in patients with true divergence excess sensory exotropia.
METHODS: Patients were divided into two groups. One group of patients underwent combined resection-recession of the lateral rectus muscle in one eye (LR group); the other group, with exodeviation of >40Δ for distance underwent additional ipsilateral medial rectus resection (LR + MR group). Postoperative measurements were taken at 1 week, 1 month, and 3 months.
RESULTS: Eleven patients were included in the study (mean age, 23.5 ± 6.7 years): 7 in the LR group and 4 in the LR + MR group. For the LR group, mean preoperative

deviation was 35.7Δ ± 3.5Δ at distance and 16.3Δ ± 3.9Δ at near. The mean near-distance disparity (NDD) was 11.4Δ ± 2.7Δ. The mean lateral rectus recession was 8.6 ± 1.1 mm: the mean resection, 4.3 ± 0.5 mm. At 3 months, mean deviation at distance was 8.3Δ ± 2.1Δ; at near, 3.1Δ ± 1.6Δ (P = 0.01). The NDD was 5.7Δ ± 2.7Δ (P = 0.01). For the LR + MR group, mean preoperative deviations at distance was 65.0Δ ± 12.9Δ; at near, 35.0Δ ± 12.2Δ. The mean NDD was 30.0Δ ± 4.0Δ. Mean lateral rectus recession was 9.5 ± 1.8 mm; the mean resection, 4.8 ± 0.8 mm. The mean medial rectus resection was 5.5 ± 0.6 mm. At 3 months, mean deviation at distance was 8.3Δ ± 2.1Δ; at near, 3.1Δ ± 1.6Δ (P = 0.06). The NDD was 5.7Δ ± 2.7Δ (P = 0.06).
CONCLUSIONS: In our study combined resection and recession of the same lateral rectus muscle in patients with divergence excess sensory exotropia significantly reduced the NDD, with no adverse outcomes.

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PMID: 31536819

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OBJECTIVE: Fungal infections of central nervous system (CNS) commonly affect immunocompromised patients, however, recently such cases have been reported even amongst immunocompetent patients.
PATIENTS & METHODS: In this study, we retrospectively analyzed outcome of 18 immunocompetent patients with histopathologically proven intracranial Aspergillosis undergoing combined surgical and medical management.
RESULTS: The age of patients ranged from 5-65 years. Fourteen out of 18 patients had well defined lesions while 4 had diffuse disease. Paranasal sinuses were involved in 8 & cavernous sinus in 3 patients. Six patients had hydrocephalus. Four patients developed infarcts during their clinical course. Surgical interventions included gross (n = 4) or subtotal excision (n = 8), decompressive

craniectomy & biopsy of lesion (n = 4), biopsy only (n = 2) and ventriculoperitoneal shunt placement (n = 6). All patients received postoperative antifungal therapy. The duration of follow up ranged from 10-60 months. Overall mortality was 44.4%. Mortality amongst patients undergoing gross total and subtotal excision was 25% & 50% respectively. Patients undergoing DC had a mortality of 25%. Both patients undergoing only biopsy died. Hydrocephalus was associated with a very high mortality (83.3%). Amongst surviving patients (n = 10), 6 patients became disease free & rest 4 had stable disease at last follow up.
CONCLUSIONS: Intracranial aspergillosis is associated with high morbidity & mortality even amongst immunocompetent patients. An aggressive multidisciplinary management is thus needed to improve outcome. Our study shows that a combination of surgical excision or decompressive craniectomy and antifungal therapy can be helpful in improving prognosis of these patients.

DOI: 10.1016/j.clineuro.2019.105511
PMID: 31505434

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BACKGROUND: Cushing's disease (CD) is a spectrum of clinical manifestations due to adrenocorticotropic hormone-secreting pituitary adenoma. Transsphenoidal adenomectomy remains the standard treatment. There has been a paradigm shift from microscopic to endoscopic transsphenoidal surgery in recent years. However, the efficacy of endoscopic transsphenoidal surgery has not been established. Therefore, it is of interest to determine the superiority of endoscopic transsphenoidal surgery, if any, over microscopic surgery.
OBJECTIVE: To assess the efficacy of endoscopic endonasal transsphenoidal surgery for the treatment of CD and to determine the factors affecting remission.
METHODS: Patients undergoing surgery for CD from 2009 to 2017 were analyzed retrospectively. Transsphenoidal resection was the preferred treatment, with recent trends in favor of the endonasal endoscopic skull base approach. Postoperative cortisol level of <2 μg/dL was taken as remission and value between 2 and 5 μg/dL as possible remission.
RESULTS: In total, 104 patients operated primarily for CD were included for analysis; 47 patients underwent microscopic surgery, 55 endoscopic surgery, and 2 were operated transcranially. Remission was achieved in 76.47% of patients. In univariate analysis, factors significantly associated with remission were 1) type of surgery (P = 0.01); remission in endoscopy surgery (88.23%) is better than microscopy (56.6%); 2) postoperative day 1 morning cortisol (P = 0.004); and 3) postoperative day 1 morning ACTH (P = 0.015). In multivariate analysis, only postoperative day 1 cortisol was found to be significant predictor of remission (P = 0.02).
CONCLUSIONS: Postoperative plasma cortisol level is a strong independent predictor of remission. Remission provided by endoscopy is significantly better than the microscopic approach.

DOI: 10.1016/j.wneu.2019.08.165
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Introduction: Although deaths due to chronic kidney disease (CKD) have doubled over the past two decades, few data exist to inform screening strategies for early detection of CKD in low-income and middle-income countries.
Methods: Using data from three population-based surveys in India, we developed a prediction model to identify a target population that could benefit from further CKD testing, after an initial screening implemented during home health visits. Using data from one urban survey (n=8698), we applied stepwise logistic regression to test three models: one comprised of demographics, self-reported medical history, anthropometry and point-of-care (urine dipstick or capillary glucose) tests; one with demographics and self-reported medical history and one with anthropometry and point-of-care tests. The 'gold-standard' definition of CKD was an estimated glomerular filtration rate <60 mL/min/1.73 m2 or urine albumin-to-creatinine ratio ≥30 mg/g. Models were internally validated via bootstrap. The most parsimonious model with comparable performance was externally validated on distinct urban (n=5365) and rural (n=6173) Indian cohorts.
Results: A model with age, sex, waist circumference, body mass index and urine dipstick had a c-statistic of 0.76 (95% CI 0.75 to 0.78) for predicting need for further CKD testing, with external validation c-statistics of 0.74 and 0.70 in the urban and rural cohorts, respectively. At a probability cut-point of 0.09, sensitivity was 71% (95% CI 68% to 74%) and specificity was 70% (95% CI 69% to 71%). The model captured 71% of persons with CKD and 90% of persons at highest risk of complications from untreated CKD (ie, CKD stage 3A2 and above).
Conclusion: A point-of-care CKD screening strategy using three simple measures can accurately identify high-risk persons who require confirmatory kidney function testing.

DOI: 10.1136/bmjgh-2019-001644
PMCID: PMC6730594
PMID: 31544000

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BACKGROUND: Skull base osteomyelitis (SBO) is predominantly seen in immunocompromised patients, with diabetes mellitus being the most common underlying comorbidity. Microbial aetiology is commonly bacterial, although fungal SBO is encountered in a small fraction of patients. Treatment consists of prolonged antimicrobial therapy, control of underlying comorbidity, and surgical

debridement in selected cases. Involvement of cranial nerves is a common complication and is considered a poor prognostic factor. Pseudoaneurysm of internal carotid artery caused by skull base osteomyelitis is a very rare complication, limited to few case reports only.
CASE: We report the case of a 55-year-old diabetic patient with bacterial SBO who developed pseudoaneurysm of cervical-petrous part of internal carotid artery during the course of treatment.
CONCLUSION: New onset symptoms or persistent symptoms in SBO suggest progressive disease and necessitate re-evaluation of the microbial aetiology and antimicrobial treatment. Skull base osteomyelitis induced aneurysm is rare but can be life threatening, if not identified and managed immediately.

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PMID: 31348132

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Central venous catheter (CVC) insertion is a commonly done procedure but associated with some potential complications. In our case, intraoperatively we placed a CVC into the right subclavian vein of the patient for a neurosurgical procedure. Subsequently, in the neurosurgical intensive care unit, on checking the patency of the CVC, only the distal and proximal lumens were working and no backflow of blood was detected from the middle port. A chest X-ray and ultrasound were done immediately, which did not reveal why the middle port was blocked. Later CVC was removed, and on examination of the catheter, we noted an intraluminal fibrin clot and a partial tear near the opening of the middle port. This is an uncommon complication of a CVC insertion that is catheter tear along with fibrin clot occluding the middle port of the CVC, which was detected in time and managed successfully.

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PMID: 31527219

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BACKGROUND: Pancreatic cystic neoplasms remain uncommon. Although data are accumulating on the incidence of pancreatic cystic neoplasms in the published literature, Indian data on these tumors are sparse.
MATERIAL AND METHODS: We collated data from prospectively maintained databases of

patients operated for cystic tumors of the pancreas from 2007 to 2016 at 7 academic centers across India to gain insights into clinical presentation and outcome of the operative treatment of these tumors. Data were compared with large series across the world to understand the regional differences in this pathology.
RESULTS: Of the 423 patients, there were 98 (23.2%) serous cystic neoplasms, 128 (30.2%) mucinous neoplasms, 34(8%) intraductal papillary mucinous neoplasms, and 121 (28.6%) solid pseudopapillary epithelial neoplasms managed in these 7 academic centers. Malignancy (adenocarcinoma, malignant intraductal papillary mucinous neoplasms, and mucinous cystadenocarcinoma) was reported in 39 (9.2%) patients. Median age at presentation was 41 years, and the female-to-male ratio was 3.4:1. At presentation, 81% of patients were symptomatic. A total of 66.7% of lesions were located in body and tail region of the pancreas. Median tumor size was 6 cm. Operative resection with curative intent was performed in 405 of these 423 patients. Major morbidity occurred in 12%, and 30-day perioperative mortality was 0.9%. Laparoscopic resections were performed in 18% and spleen-preserving resections were performed in 3% of patients.
CONCLUSION: Female preponderance, young age, and a benign nature of most pancreatic cystic neoplasms were observed. Large size of tumors on presentation, fewer intraductal papillary mucinous neoplasm resections, and a much greater incidence of solid pseudopapillary epithelial neoplasms were distinctive of this study. Although the proportion of laparoscopic resections and splenic preservation was less compared with Western centers, the perioperative morbidity and mortality was on par with established standards.

DOI: 10.1016/j.surg.2019.07.013
PMID: 31543321

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Background: Auditory hallucinations may persist in a subset of chronic psychotic patients in spite of treatment. It is important to understand the personal meaning and significance of voices in these patients. In spite of its relevance, only a limited literature is available.
Aim: This exploratory study aimed to assess the beliefs regarding voices in treatment-seeking patients with chronic schizophrenia having persistent auditory verbal hallucinations (AVHs) and assess their relation to the severity of psychosis.
Materials and Methods: We recruited thirty adult patients with chronic schizophrenia as per the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition with both lifetime and current significant AVHs (≥50% days/month). Co-occurring psychiatric disorders were ruled out using the Mini International Neuropsychiatric Interview-7.0.0. Patients were assessed using a semi-structured proforma, Beliefs about Voices Questionnaire-Revised (BAVQ-R), Psychotic Symptom Rating Scale (PSYRATS), Scale for the Assessment of Positive Symptoms (SAPS), Scale for the Assessment of Negative Symptoms (SANS), and Clinical Global Impression-Schizophrenia (CGI-SCH)-severity.
Results: The median age of the patients was 32 years (interquartile range [IQR]:

23.8-40.5). The median duration of illness and treatment was 7 years (IQR: 3.4-15.0) and 3 years (IQR: 1.9-10.5), respectively. Higher BAVQ-R scores were found on "malevolence," "omnipotence," and "emotional and behavioral resistance." These beliefs had a significant positive correlation with PSYRATS hallucination subscale, but not with the severity of psychosis (SAPS, SANS, and CGI-SCH). The sample had lower scores for "benevolence" and "engagement" subscales of BAV-Q. Conclusion: Overall, the study sample believed AVH to be more malicious and omnipotent rather than benevolent, and resisted the voices, engaging only minimally with them. These beliefs were not related to the severity of psychosis, but were related to the severity of hallucinations. Assessing the beliefs regarding AVH in larger, diverse samples may help to plan behavioral interventions.

DOI: 10.4103/psychiatry.IndianJPsychiatry_573_18
PMCID: PMC6767829
PMID: 31579183

35: Chawla R, Kumar S, Kumawat D, Azad SV, Temkar S, Jain S. Chronic myeloid leukaemia accelerates proliferative retinopathy in patients with co-existent diabetes: A risk factor not to be ignored. Eur J Ophthalmol. 2019 Sep 12:1120672119875341. doi: 10.1177/1120672119875341. [Epub ahead of print] PubMed PMID: 31514533.

OBJECTIVE: To describe the retinal imaging characteristics, retinopathy management strategies and visual outcomes in cases of diabetes with chronic myeloid leukaemia.
DESIGN: Retrospective observational study.
PARTICIPANTS: Patients with diabetes and chronic myeloid leukaemia managed at our tertiary eye care centre from January 2015 to December 2017.
METHODS: Detailed ophthalmic and systemic evaluation, treatment and follow-up records were reviewed. The main measures studied were visual acuity, intra-ocular pressure, retinopathy severity, and surgical indications and techniques.
RESULTS: Of the six patients studied, three had diabetes and chronic myeloid leukaemia at presentation, while in three cases chronic myeloid leukaemia was diagnosed following evaluation for proliferative retinopathy. The visual acuity ranged from 20/20 to perception of light. All eyes had marked proliferative retinopathy out of proportion to the exudation. None of the eyes had significant macular oedema. Pan-retinal photocoagulation (10/12, 83.33%), intravitreal anti-vascular endothelial growth factor injection (8/12, 66.67%), vitrectomy (2/12, 16.67%), cataract surgery (2/12, 16.67%) and trabeculectomy followed by cryoablation (2/12, 16.67%) was performed for management of the ocular disease as indicated. Median follow-up was 16.5 months (range: 6-24 months). Final visual acuity ranged from PL to 20/20 with acuity $\geqslant$ 20/100 in eight eyes. Four eyes had advanced optic neuropathy from neovascular glaucoma.
CONCLUSION: Accelerated proliferative retinopathy can be seen in cases of diabetes with chronic myeloid leukaemia at the very initial ophthalmic evaluation. Thus, there is a need to alter screening guidelines for retinopathy in cases of diabetes with chronic myeloid leukaemia. Early detection and aggressive management may help preserve visual acuity in such cases.

DOI: 10.1177/1120672119875341

PMID: 31514533

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A 21-year-old female patient with repaired tetralogy of Fallot and aortic valvular reconstruction with aneurysmal aortic root and severe aortic regurgitation underwent aortic root replacement. Intrinsic aortopathy in tetralogy of Fallot and its surgical importance are highlighted.

DOI: 10.1177/2150135119865162
PMID: 31496413

38: Daggumilli S, Vanathi M, Ganger A, Goyal V, Tandon R. Corneal Evaluation in Patients With Parkinsonism on Long-Term Amantadine Therapy. Cornea. 2019 Sep;38(9):1131-1136. doi: 10.1097/ICO.0000000000001951. PubMed PMID: 30973404.

PURPOSE: To evaluate the progression of corneal endothelial changes in patients with Parkinson disease (PD) on long-term oral amantadine therapy.
METHODS: A prospective comparative longitudinal observational study of 90 patients (180 eyes) with PD on more than 6 months of oral amantadine therapy, 30 amantadine naive patients with PD, and 30 healthy controls (age and gender matched). Corneal endothelial cell parameters (endothelial cell density, percentage hexagonality of the cells, and coefficient of variation) and corneal subbasal nerve fiber layer changes were studied over a follow-up period of 1 year.
RESULTS: The amantadine patients with PD group had a statistically significant decrease in endothelial cell density (1.51% vs. 0.94% vs. 0.55%) (P = 0.04), decrease of percentage hexagonality of the cells (4.98% vs. 3.56% vs. 2.31%) (P = 0.01), and increase of coefficient of variation (6.12% vs. 4.80% vs. 3.30%) (P = 0.03) compared with amantadine naive patients with PD and controls, respectively. Analysis of changes in the patients with PD based on the daily dosage of amantadine showed greater change in endothelial parameters in patients who were on 400 mg amantadine.
CONCLUSIONS: Long-term amantadine therapy seems to effect changes on corneal endothelium.

DOI: 10.1097/ICO.0000000000001951
PMID: 30973404 [Indexed for MEDLINE]

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Care Community. 2019 Sep;27(5):e752-e759. doi: 10.1111/hsc.12788. Epub 2019 Jun 24. PubMed PMID: 31231942.

The study was aimed to assess the oral health status and treatment needs of Juang tribe residing in Bansapal taluk of Northern Odisha. A cross-sectional survey was carried out among 1,412 Juangs using a cluster random sampling procedure. Bansapal taluk is subdivided into six Gram Panchayat's (GP) with each GP considered as a cluster. From each of the six GP's, equal number of villages was chosen randomly using lottery method in order to get uniform representation. A total of 16 villages were chosen using this method. From each selected village, every alternate household on each side of the street was included and all the people in that household were surveyed through a door-to-door survey. Data were collected using the WHO Oral Health Assessment Form, 1997. All the examinations were carried out by a single examiner assisted by a trained recording assistant who was sitting close enough to the examiner so that instructions and codes could be easily heard. The periodontal health status as recorded by Community Periodontal Index indicated that majority of the subjects (75.6%) had calculus. Assessment of loss of attachment showed that majority of the subjects (64.5%) had an attachment loss of 0-3 mm. Caries experience in primary dentition was 34.2% and in permanent dentition was 83.4%. The study population was characterised by high prevalence of periodontal disease, dental caries and high treatment needs. The results from this study could be used as a baseline information for health authorities and dental professionals for planning strategies for oral health promotion, prevention and treatment among the Juang population.

DOI: 10.1111/hsc.12788
PMID: 31231942

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BACKGROUND: Lumbar radicular pain (LRP) results from inflammation and irritation of lumbar spinal nerves and the dorsal root ganglion (DRG).
METHODS: Our study is a prospective, triple-blind, randomized, activecontrol trial (CTRI/2016/02/006666) comparing transforaminal epidural local anesthetic (LA) injection and pulsed radiofrequency treatment of DRG in patients with chronic LRP. Patients with LRP after failed conservative management for >3 months received selective diagnostic nerve root block with 1 mL 2% lidocaine. Fifty patients showing positive responses were divided into groups of 25 each. The LA group received transforaminal epidural injection of 1 mL 0.5% bupivacaine. The lumbar pulsed radiofrequency (LPRF) group received transforaminal epidural injection of 1 mL 0.5% bupivacaine with 3 cycles of pulsed radiofrequency of the DRG for 180 seconds RESULTS: Both groups were compared by observing pain intensity on a 0- to 100-point VAS and improvement in functional status by the Oswestry Disability Index (ODI version 2.0) at 2 weeks and 1, 2, 3, and 6 months. All baseline variables were comparable between the 2 groups. Statistically significant reduction in both outcomes was seen in the LPRF group compared to the LA group from 2 weeks to 6 months. One hundred percent of patients in the LPRF

group had a ≥20- point decrease in VAS and significant percentage reduction in ODI at all time intervals up to 6 months, whereas it was seen in 80% and 28% of patients in the LA group at 3 and 6 months, respectively. No complications were seen in any patients CONCLUSION: Pulsed radiofrequency of the DRG applied for longer duration results in long-term pain relief and improvement in the functional quality of life in patients with chronic LRP.

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PMID: 31538405

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BACKGROUND: Bronchiectasis is a common but neglected chronic lung disease. Most epidemiological data are limited to cohorts from Europe and the USA, with few data from low-income and middle-income countries. We therefore aimed to describe the characteristics, severity of disease, microbiology, and treatment of patients with bronchiectasis in India.
METHODS: The Indian bronchiectasis registry is a multicentre, prospective, observational cohort study. Adult patients (≥18 years) with CT-confirmed bronchiectasis were enrolled from 31 centres across India. Patients with bronchiectasis due to cystic fibrosis or traction bronchiectasis associated with another respiratory disorder were excluded. Data were collected at baseline (recruitment) with follow-up visits taking place once per year. Comprehensive clinical data were collected through the European Multicentre Bronchiectasis Audit and Research Collaboration registry platform. Underlying aetiology of bronchiectasis, as well as treatment and risk factors for bronchiectasis were analysed in the Indian bronchiectasis registry. Comparisons of demographics were made with published European and US registries, and quality of care was benchmarked against the 2017 European Respiratory Society guidelines.
FINDINGS: From June 1, 2015, to Sept 1, 2017, 2195 patients were enrolled. Marked differences were observed between India, Europe, and the USA. Patients in India were younger (median age 56 years [IQR 41-66] vs the European and US registries; p<0·0001]) and more likely to be men (1249 [56·9%] of 2195). Previous tuberculosis (780 [35·5%] of 2195) was the most frequent underlying cause of bronchiectasis and Pseudomonas aeruginosa was the most common organism in sputum culture (301 [13·7%]) in India. Risk factors for exacerbations included being of the male sex (adjusted incidence rate ratio 1·17, 95% CI 1·03-1·32; p=0·015), P aeruginosa infection (1·29, 1·10-1·50; p=0·001), a history of pulmonary

tuberculosis (1·20, 1·07-1·34; p=0·002), modified Medical Research Council Dyspnoea score (1·32, 1·25-1·39; p<0·0001), daily sputum production (1·16, 1·03-1·30; p=0·013), and radiological severity of disease (1·03, 1·01-1·04; p<0·0001). Low adherence to guideline-recommended care was observed; only 388 patients were tested for allergic bronchopulmonary aspergillosis and 82 patients had been tested for immunoglobulins.
INTERPRETATION: Patients with bronchiectasis in India have more severe disease and have distinct characteristics from those reported in other countries. This study provides a benchmark to improve quality of care for patients with bronchiectasis in India.
FUNDING: EU/European Federation of Pharmaceutical Industries and Associations Innovative Medicines Initiative inhaled Antibiotics in Bronchiectasis and Cystic Fibrosis Consortium, European Respiratory Society, and the British Lung Foundation.

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Importance: Cancer and other noncommunicable diseases (NCDs) are now widely recognized as a threat to global development. The latest United Nations high-level meeting on NCDs reaffirmed this observation and also highlighted the slow progress in meeting the 2011 Political Declaration on the Prevention and Control of Noncommunicable Diseases and the third Sustainable Development Goal. Lack of situational analyses, priority setting, and budgeting have been identified as major obstacles in achieving these goals. All of these have in common that they require information on the local cancer epidemiology. The Global Burden of Disease (GBD) study is uniquely poised to provide these crucial data.
Objective: To describe cancer burden for 29 cancer groups in 195 countries from 1990 through 2017 to provide data needed for cancer control planning.
Evidence Review: We used the GBD study estimation methods to describe cancer incidence, mortality, years lived with disability, years of life lost, and disability-adjusted life-years (DALYs). Results are presented at the national level as well as by Socio-demographic Index (SDI), a composite indicator of income, educational attainment, and total fertility rate. We also analyzed the influence of the epidemiological vs the demographic transition on cancer incidence.
Findings: In 2017, there were 24.5 million incident cancer cases worldwide (16.8 million without nonmelanoma skin cancer [NMSC]) and 9.6 million cancer deaths. The majority of cancer DALYs came from years of life lost (97%), and only 3% came from years lived with disability. The odds of developing cancer were the lowest in the low SDI quintile (1 in 7) and the highest in the high SDI quintile (1 in 2) for both sexes. In 2017, the most common incident cancers in men were NMSC (4.3 million incident cases); tracheal, bronchus, and lung (TBL) cancer (1.5 million incident cases); and prostate cancer (1.3 million incident cases). The most common causes of cancer deaths and DALYs for men were TBL cancer (1.3 million deaths and 28.4 million DALYs), liver cancer (572 000 deaths and 15.2 million DALYs), and stomach cancer (542 000 deaths and 12.2 million DALYs). For

women in 2017, the most common incident cancers were NMSC (3.3 million incident cases), breast cancer (1.9 million incident cases), and colorectal cancer (819 000 incident cases). The leading causes of cancer deaths and DALYs for women were breast cancer (601 000 deaths and 17.4 million DALYs), TBL cancer (596 000 deaths and 12.6 million DALYs), and colorectal cancer (414 000 deaths and 8.3 million DALYs).
Conclusions and Relevance: The national epidemiological profiles of cancer burden in the GBD study show large heterogeneities, which are a reflection of different exposures to risk factors, economic settings, lifestyles, and access to care and screening. The GBD study can be used by policy makers and other stakeholders to develop and improve national and local cancer control in order to achieve the global targets and improve equity in cancer care.

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44: Garg K, Sharma R, Dash C, Agrawal D, Sharma BS. Spinal Intradural Extramedullary Ependymoma with Intracranial Metastasis and Leptomeningeal Spread: A Case Report and Comprehensive Review of Literature. Neurol India. 2019 Sep-Oct;67(5):1352-1357. doi: 10.4103/0028-3886.271269. PubMed PMID: 31744975.

Dorsolumbar intradural extramedullary ependymoma is a rare entity. Spinal metastases in patients with intracranial ependymoma are well described, but it is extremely rare for a spinal ependymoma to metastasize to brain. We describe a case of aggressive dorsolumbar intradural extramedullary ependymoma mimicking arachnoid cyst radiologically, which developed intracranial metastasis.

DOI: 10.4103/0028-3886.271269
PMID: 31744975

45: Garg K, Singh PM, Singla R, Aggarwal A, Borle A, Singh M, Chandra PS, Kale SS, Mahapatra AK. Role of Decompressive Craniectomy in Traumatic Brain Injury - A Meta-analysis of Randomized Controlled Trials. Neurol India. 2019 Sep-Oct;67(5):1225-1232. doi: 10.4103/0028-3886.271260. PubMed PMID: 31744947.

Objective: Several studies have indicated that decompressive craniectomy (DC) for traumatic brain injury (TBI) is lifesaving. However, there is lack of level 1 evidence to define the role of DC in TBI. We performed a meta-analysis of all the randomized controlled trials (RCTs) published so far on the role of DC in adult patients with TBI.
Materials and Methods: A systematic literature search was performed for articles published until September of 2016 for RCTs of DC in adult patients with TBI. The primary end-point was mortality at six-months. We also evaluated the overall adverse outcomes at six months. Assessment of risk of bias of the RCTs was also performed.
Results: Three trials evaluating adult population satisfied the eligibility criteria. Pooled analysis involved 285 and 288 patients in DC group and control groups respectively. Patients undergoing DC for TBI had a lower mortality association of nearly 50 percent. However, patients surviving DC were more likely to have a poor neurological outcome compared to patients undergoing medical management.
Conclusion: Based on the available RCTs on DC in TBI, the results of our

meta-analysis show that there is a mortality benefit of performing a DC over the best medical management in adult patients. Furthermore, surviving following DC, a greater incidence of a poor neurological outcome is noted. In the event of small number of high-quality RCTs, our results must be interpreted with caution.

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47: Gautam S, Kumar U, Kumar M, Kanga U, Dada R. Association of HLA-G 3'UTR Polymorphisms with Soluble HLA-G Levels and Disease Activity in Patients with Rheumatoid Arthritis: A Case-Control Study. Immunol Invest. 2020 Feb;49(1-2):88-105. doi: 10.1080/08820139.2019.1657146. Epub 2019 Sep 5. PubMed PMID: 31549885.

Background: Human leukocyte antigen (HLA)-G antigens are inducible non-classical major histocompatibility complex class Ib molecules which play an important role in the regulation of inflammatory processes and immunomodulation in autoimmune diseases. There are controversial reports on the impact of HLA-G gene polymorphisms on rheumatoid arthritis (RA). This study aimed at examining the impact of 14 base pair (bp) ins/del (rs66554220) and +3142G>C (rs1063320) polymorphisms and correlating these with soluble HLA-G (sHLA-G) levels to understand the susceptibility to RA in our sample cohort.Methods: Genomic DNA from 140 RA patients and 125 healthy controls was isolated using the salting out method. The genotyping of two polymorphisms of HLA-G (+3142G>C and 14 bp ins/del) was done by polymerase chain reaction restriction fragment length polymorphism (PCR-RFLP) and PCR method, respectively. Levels of sHLA-G were estimated by ELISA and disease activity was calculated by disease activity score (DAS28-ESR).Results: The HLA-G +3142G>C polymorphism was found to be associated with a decreased risk of RA as attributed to recessive inheritance tested model results (OR = 0.4, 95%C.I. = 0.2-0.9, p = .0313*, GG + GC versus CC). Our finding did not support an association between HLA-G 14 bp ins/del variant and risk/protection of RA. The sHLA-G levels were significantly lower in +3142GG and +3142GC RA patients as compared to healthy controls.Conclusion: HLA-G +3142G>C gene polymorphism might decrease the risk of occurrence of RA in our sample cohort as +3142CC genotype is associated with increased sHLA-G levels.Abbreviations: HLA-G: human leukocyte antigen-G; RA: rheumatoid arthritis; MHC: major histocompatibility complex; UTR: untranslated region; URR: upstream regulatory region; SLE: systemic lupus erythematous; PCR-RFLP: polymerase chain reaction restriction fragment length polymorphism; sHLA-G: soluble HLA-G; bp: base pair; ACR/EULAR: American College of Rheumatology/European League against Rheumatism; RF: rheumatoid factor; Anti-CCP: anti-cyclic citrullinated peptide; DAS28-ESR: Disease Activity Score 28- Erythrocyte Sedimentation Rate; TJC: tender joint count; SJC: swollen joint count; ESR: erythrocyte sedimentation rate; PGA: patient global assessment; HTN: hypertension; DM: diabetes mellitus; TB: tuberculosis; IEC: Institute Ethics Committee; ELISA: enzyme linked immunosorbent assay; ROC: receiver operating characteristics; AUC: area under curve; SNP: single nucleotide polymorphism; MTX: methotrexate; DMARDs: disease modifying anti-rheumatic drugs; Treg: regulatory T cells; IL: interleukinUnits: soluble

HLA-G: Units/mL {U/mL}.

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PMID: 31549885

48: Gautam US, Mehra S, Kumari P, Alvarez X, Niu T, Tyagi JS, Kaushal D. Mycobacterium tuberculosis sensor kinase DosS modulates the autophagosome in a DosR-independent manner. Commun Biol. 2019 Sep 20;2(1):349. doi: 10.1038/s42003-019-0594-0. PubMed PMID: 31925209.

Dormancy is a key characteristic of the intracellular life-cycle of Mtb. The importance of sensor kinase DosS in mycobacteria are attributed in part to our current findings that DosS is required for both persistence and full virulence of Mtb. Here we show that DosS is also required for optimal replication in macrophages and involved in the suppression of TNF-α and autophagy pathways. Silencing of these pathways during the infection process restored full virulence in MtbΔdosS mutant. Notably, a mutant of the response regulator DosR did not exhibit the attenuation in macrophages, suggesting that DosS can function independently of DosR. We identified four DosS targets in Mtb genome; Rv0440, Rv2859c, Rv0994, and Rv0260c. These genes encode functions related to hypoxia adaptation, which are not directly controlled by DosR, e.g., protein recycling and chaperoning, biosynthesis of molybdenum cofactor and nitrogen metabolism. Our results strongly suggest a DosR-independent role for DosS in Mtb.

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49: Ghose S, Ghosh S, Tanwar VS, Tolani P, Kutum R, Sharma A, Bhardwaj N, Shamsudheen KV, Verma A, Jayarajan R, Dash D, Sivasubbu S, Scaria V, Seth S, Sengupta S. Investigating Coronary Artery Disease methylome through targeted bisulfite sequencing. Gene. 2019 Dec 30;721:144107. doi: 10.1016/j.gene.2019.144107. Epub 2019 Sep 6. PubMed PMID: 31499127.

BACKGROUND: Gene environment interactions leading to epigenetic alterations play pivotal role in the pathogenesis of Coronary Artery Disease (CAD). Altered DNA methylation is one such epigenetic factor that could lead to altered disease etiology. In this study, we comprehensively identified methylation sites in several genes that have been previously associated with young CAD patients.
METHODS: The study population consisted of 42 healthy controls and 33 young CAD patients (age group <50 years). We performed targeted bisulfite sequencing of promoter as well as gene body regions of several genes in various pathways like cholesterol synthesis and metabolism, endothelial dysfunction, apoptosis, which are implicated in the development of CAD.
RESULTS: We observed that the genes like GALNT2, HMGCR were hypermethylated in the promoter whereas LDLR gene promoter was hypomethylated indicating that intracellular LDL uptake was higher in CAD patients. Although APOA1 did not show significant change in methylation but APOC3 and APOA5 showed variation in methylation in promoter and exonic regions. Glucokinase (GCK) and endothelial nitric oxide synthase 3 (NOS3) were hyper methylated in the promoter. Genes involved in apoptosis (BAX/BCL2/AKT2) and inflammation (PHACTR1/LCK) also showed differential methylation between controls and CAD patients. A combined analysis of the methylated CpG sites using machine learning tool revealed 14 CpGs in 11 genes that could discriminate CAD cases from controls with over 93% accuracy.

CONCLUSIONS: This study is unique because it highlights important gene methylation alterations which might predict the risk of young CAD in Indian population. Large scale studies in different populations would be important for validating our findings and understanding the epigenetic events associated with CAD.

DOI: 10.1016/j.gene.2019.144107
PMID: 31499127 [Indexed for MEDLINE]

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51: Goswami AK, S R, Kalaivani M, Nongkynrih B, Kant S, Gupta SK. Disability and its association with sociodemographic factors among elderly persons residing in an urban resettlement colony, New Delhi, India. PLoS One. 2019 Sep 24;14(9):e0222992. doi: 10.1371/journal.pone.0222992. eCollection 2019. Erratum in: PLoS One. 2019 Oct 23;14(10):e0224494. PubMed PMID: 31550291; PubMed Central PMCID: PMC6759158.

Disability prevents an individual from performing to the fullest potential. It is multidimensional. Disability may be physical, mental, social, personal, and environmental or a combination of these. The elderly experience an increased burden of disability, especially in areas where there are limited resources and rapid urbanization. Comparison of reported disability is difficult because several definitions and scales are in use. We used the World Health Organization Disability Assessment Schedule version 2.0 (WHODAS 2.0) to study the prevalence of disability, and its association with sociodemographic factors among elderly persons residing in an urban resettlement colony, New Delhi, India. The WHODAS 2.0 provides continuous summary scores, where higher scores indicate higher disability, and vice versa. Elderly persons aged 60 years and above were selected by simple random sampling in this community-based cross-sectional study. Trained interviewers administered the semi-structured interview schedule and WHODAS 2.0. The prevalence of disability was 7.4% (5.8% - 9.3%) among the 931 participants. The prevalence was higher among females than males. Female sex, elderly aged 70 years and above, and those who were illiterate had increased risk of higher disability scores. Participants who were in government or private service had 50% decreased risk of having higher disability scores. The burden of disability was high among elderly persons residing in this resettlement colony. Community-based holistic interventions are required to mitigate the disability, and to improve the functioning of elderly persons.

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PMCID: PMC6759158
PMID: 31550291

52: Grover N, Jameel S, Dhiman V. Change in Attitude among Nursing Undergraduate Students Following One-Month Exposure in a Mental Healthcare Setting. Indian J

Psychol Med. 2019 Sep 5;41(5):462-465. doi: 10.4103/IJPSYM.IJPSYM_342_18. eCollection 2019 Sep-Oct. PubMed PMID: 31548770; PubMed Central PMCID: PMC6753720.

Background: Attitude of treating professionals plays an important role in the treatment of mental illnesses. Nursing professionals are an important part of the mental health care team. As a part of their nursing coursework, nursing students are posted in a mental health setting. It is important to assess the impact of such postings on their attitudes.
Materials and Methods: A total of 235 undergraduate nursing students posted in a mental healthcare setting for one month participated in the study. Their attitude towards mental illness and psychiatry was assessed before and after the posting, using Personal data sheet, Attitude Scale of Mental Illness (ASMI), and Attitude towards Psychiatry Scale (ATP).
Results: At pre-assessment, the nursing students had a negative attitude on all dimensions of ASMI except benevolence, and positive attitude on all the six domains of ATP. At post-assessment, attitude improved significantly on pessimistic prediction dimension of ASMI, and they were able to maintain their positive attitude on ATP.
Conclusions: One-month posting had a weak positive impact on attitude towards mental illness and no detrimental impact on attitude towards psychiatry. There is a need for better efforts to increase the impact of training on attitude towards mental illness.

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PMCID: PMC6753720
PMID: 31548770

53: Gupta A, Singh PK, Sharma P, Kaur P, Sharma S, Singh TP. Structural and biochemical studies of phosphopantetheine adenylyltransferase from Acinetobacter baumannii with dephospho-coenzyme A and coenzyme A. Int J Biol Macromol. 2020 Jan 1;142:181-190. doi: 10.1016/j.ijbiomac.2019.09.090. Epub 2019 Sep 13. PubMed PMID: 31525415.

Phosphopantetheine adenylyl transferase catalyzes a rate limiting penultimate step of the multistep reaction which produces coenzyme A (CoA) as a final product. CoA is required as an essential cofactor in a number of metabolic reactions. Therefore inhibiting the function of this enzyme will lead to cell death in bacteria. Acinetobacter baumannii is multi drug resistant pathogen and causes infections in immunocompromised patients. AbPPAT has been cloned, expressed, purified and crystallized and structures of two complexes of AbPPAT with dephospho coenzyme A (dPCoA) and coenzyme A (CoA) have been determined. Both dPCoA and CoA molecules are observed in the substrate binding site of AbPPAT. A comparison with the structures of the complexes of PPAT from other species shows that the orientations of dPCoA are identical in all the structures. On the other hand, as observed from the structures of the complexes of CoA with PPAT, the orientations of CoA are found to differ considerably. This shows that the substrates occupy identical positions in the substrate binding sites of enzymes whereas the positions of inhibitors may differ. The binding studies carried out using fluorescence method and surface plasmon resonance techniques showed that binding affinity of CoA towards AbPPAT is nearly three times higher than that of dPCoA.

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PMID: 31525415

54: Gupta A, Gupta N. Failed videolaryngoscopy in an infant with giant vallecular cyst managed successfully with a 'three-person technique' of fibre-optic intubation. BMJ Case Rep. 2019 Sep 30;12(9). pii: e231035. doi: 10.1136/bcr-2019-231035. PubMed PMID: 31570357.

Vallecular cysts are a rare entity but can complicate the airway management due to the physical impediment and distortion of the laryngeal inlet. It can lead to fatal life-threatening airway obstruction postinduction of anaesthesia. Infancy compounds the risks due to lack of cooperation and physiological reserves. The literature review suggested most anaesthesiologists avoided muscle relaxants and aspiration of the cyst was used as a rescue technique. The present case report illustrates the successful airway management of an infant with a huge vallecular cyst using fibre-optic intubation by a 'three-person' technique after paraglossal videolaryngoscopy failed to secure the airway.

DOI: 10.1136/bcr-2019-231035
PMID: 31570357

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56: Gupta N, Kumar R, Seth T, Garg B, Sharma A. Targeting of stromal versican by miR-144/199 inhibits multiple myeloma by downregulating FAK/STAT3 signalling. RNA Biol. 2020 Jan;17(1):98-111. doi: 10.1080/15476286.2019.1669405. Epub 2019 Sep 29. PubMed PMID: 31532704; PubMed Central PMCID: PMC6948970.

The abnormal growth of malignant plasma cells in Multiple Myeloma (MM) requires bone marrow (BM) niche consisting of proteoglycans, cytokines, etc. Versican (VCAN), a chondroitin sulphate proteoglycan promotes progression in solid tumours but there is dearth of literature in MM. Hence, we studied the involvement of VCAN in MM and its regulation by microRNAs as a therapeutic approach. Thirty MM patients and 20 controls were recruited and BM stromal cells (BMSCs) were isolated by primary culture. Molecular levels of VCAN, miR-144, miR-199 & miR-203 were determined in study subjects and cell lines. The involvement of VCAN in myeloma pathogenesis was studied using BMSCs-conditioned medium (BMSCs-CM) and VCAN-neutralizing antibody or microRNA mimics. Elevated expression of VCAN was observed in patients especially in BM stroma while microRNA expression was significantly lower and showed negative correlation with VCAN. Moreover, BMSCs-CM showed the presence of VCAN which upon supplementing to MM cells alter parameters in favour of myeloma progression, however, this effect was neutralized by VCAN antibody or miR (miR-144 and miR-199) mimics. The downstream signalling of VCAN was found to activate FAK and STAT3 which subsides by using VCAN antibody or miR mimics. The neutralization of oncogenic effect of BMSCs-CM by VCAN blockage

affirms its plausible role in progression of MM. VCAN was observed as a paracrine mediator in the cross-talk of BMSCs and myeloma cells in BM microenvironment. Therefore, these findings suggest exploring VCAN as novel therapeutic target and utilization of microRNAs as a therapy to regulate VCAN for better management of MM.

DOI: 10.1080/15476286.2019.1669405
PMCID: PMC6948970 [Available on 2020-09-29]
PMID: 31532704

57: Gupta N, Singla P, Kumar S, Ganesh S, Dhawan N, Sobti P, Aggarwal S. Role of dacryoendoscopy in refractory cases of congenital nasolacrimal duct obstruction. Orbit. 2019 Sep 25:1-7. doi: 10.1080/01676830.2019.1668434. [Epub ahead of print] PubMed PMID: 31552767.

Purpose: To highlight the importance of dacryoendoscopy in recognizing the factors responsible for failure with successful recanalization obviating the need for dacryocystorhinostomy in a few selective cases. Method: A retrospective study of 13 children undergoing dacryoendoscopy for refractory congenital nasolacrimal duct obstruction (CNLDO) was carried out during a period of 3 years from 2016 to 2018. Children with single or multiple failed probings were included in the study. Results: Out of the total 13 cases included in the study there 9 males and 4 females. The age ranged from 9 months to 36 months with the involvement of the right side in 7 cases and the left side in 6 cases. Four cases had dysgenesis of bony nasolacrimal duct (NLD), 4 cases had dacryolith, 3 cases had an intact membrane at the lower end of NLD and 2 cases had fibrosis of the lower end of NLD and the surrounding area in the inferior meatus (IM) following multiple interventions, (Table 1). Dacryoendoscopic recanalization was done in 7 cases while the endoscopic dacryocystorhinostomy (DCR) was done in 6 cases. Asuccessful outcome was achieved in all the cases and at the end of 6 months, all the children remained asymptomatic. Conclusions: Dacryoendoscopy (DEN) facilitates direct examination of the nasolacrimal system and thus has an added advantage over nasal endoscopy assisted probing in the refractory cases of CNLDO.

DOI: 10.1080/01676830.2019.1668434
PMID: 31552767

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With significant advancement in the tools and strategies available for diagnosis and management, there is an expected change in the epidemiological profile of patients living with HIV/AIDS (Human immunodeficiency syndrome/Acquired immunedeficiency syndrome). We retrospectively analyzed the changing epidemiological pattern of HIV infection over a period of 13 years in the anti-retroviral (ART) center of a tertiary care hospital in India. The study included a total of 9419 patients (8811 adults and 608 children) who were registered at our ART center between 2005 and 2017. Among adult patients, 68.9% patients were males and the mean age of presentation was 35.6±9.9 years. Heterosexual route was the most common route of transmission (95.5%). A total of 97.4% of pediatric patients acquired HIV infection via vertical transmission from

their mothers. Most of the adult patients (77.1%) were educated only to primary level. Despite the economic growth in the country over the years, the monthly income of these patients has not significantly changed. The median CD4 count at the time of eligibility for starting ART was 244/µl of blood. An increasing trend in the baseline CD4 count was noticed from 2005 to 2017. Also, improved outcomes with less loss to follow up were noticed in the latter years. However, an increasing trend was also noted in the time gap between registration at the ART center and initiation of ART. Improvement in the baseline CD4 count and better treatment outcomes are indicators of a well-functioning national program. However, continued programmatic interventions are needed to further tackle the menace of HIV/AIDS in India.

PMID: 31545775

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Spondylo-meta-epiphyseal dysplasia, short limb-abnormal calcification type is a rare autosomal recessive disorder causing severe disproportionate short stature along with typical radiological features. We report an adult male patient with typical features and a novel homozygous nonsense mutation c.2422C>T (p.Gln808Ter) in DDR2 . This is the first report of the disease from India.

DOI: 10.1055/s-0039-1683382
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PMID: 31406622

60: Gupta S, Giridhar P, Sharma D, K P H, P K J, Rath GK. Can Chemotherapy be Integrated with Brachytherapy in Locally Advanced Carcinoma Cervix- A Proof of Principle Study. Asian Pac J Cancer Prev. 2019 Sep 1;20(9):2653-2657. doi: 10.31557/APJCP.2019.20.9.2653. PubMed PMID: 31554360.

Introduction: Cancer of the cervix is the second most common cancer in women in India. Chemoradiotherapy is the standard treatment for locally advanced carcinoma cervix. Chemotherapy is not given on days of brachytherapy due to the fear of increased toxicity though studies supporting or refuting it are limited. We intended to study feasibility of adding chemotherapy to brachytherapy with assessment of acute toxicity and response rates. Methods: 29 patients of locally advanced carcinoma cervix (FIGO IIB to IIIB) were assigned to receive either three sessions of high dose rate (HDR) brachytherapy alone or HDR brachytherapy with concurrent chemotherapy of Paclitaxel and Carboplatin after completion of external beam radiation with concurrent Cisplatin. Patients were assessed for compliance of treatment, toxicity and response rates at three and six months. The p-value less than 0.05 was considered statistically significant. Fischer’s exact test was used for statistical analysis. Results: 15 patients were assigned to the standard of care arm and 14 patients to the experimental chemo-brachytherapy arm. The median number of cycles of chemotherapy possible with brachytherapy was two (Range: 1 -3). At three months after treatment all patients except one patient in each arm had a complete response. There was two acute grade 3 hematological

toxicity and two acute grade 3 or higher gastrointestinal toxicity in the experimental arm but none in the standard arm. The experimental arm had a statistically higher incidence of acute grade 3 and 4 toxicity than the standard arm (p=0.042). Conclusions: Chemo-brachytherapy is associated with higher acute toxicity with comparable response rates. Small patient numbers and short follow up impedes us from providing conclusive evidence.

DOI: 10.31557/APJCP.2019.20.9.2653
PMID: 31554360

61: Gupta S, Selvan H, Shakrawal J, Gupta V. One-step management of post-traumatic triple dialysis using two rings. Eur J Ophthalmol. 2019 Sep;29(5):NP9-NP13. doi: 10.1177/1120672118803520. Epub 2018 Oct 1. PubMed PMID: 30270659.

PURPOSE: To report a case that presented with post blunt trauma cataract, zonular dialysis, cyclodialysis and iridodialysis and its successful single-sitting management.
METHODS: After lens aspiration, a capsular tension ring and multipiece intraocular lens were placed in the bag to support the zonules, a single eyelet Cionni ring was fixed in the sulcus to provide endocyclotamponade, and iridodialysis repair was done using the 'stroke and dock technique'.
RESULT: Successful centration of the intraocular lens, closure of the cleft and apposition of the iris root to its base were achieved at the end of the surgery.
CONCLUSION: A single-sitting surgery correcting all the three dialysis can curtail the burden of repeated surgeries and their complications, providing early visual recovery and cost-effectivity.

DOI: 10.1177/1120672118803520
PMID: 30270659 [Indexed for MEDLINE]

62: Hackmann C, Balhara YPS, Clayman K, Nemec PB, Notley C, Pike K, Reed GM, Sharan P, Rana MS, Silver J, Swarbrick M, Wilson J, Zeilig H, Shakespeare T. Perspectives on ICD-11 to understand and improve mental health diagnosis using expertise by experience (INCLUDE Study): an international qualitative study. Lancet Psychiatry. 2019 Sep;6(9):778-785. doi: 10.1016/S2215-0366(19)30093-8. Epub 2019 Jul 8. PubMed PMID: 31296444.

Developed in collaboration with WHO Department of Mental Health and Substance Abuse, this study (conducted in India, the UK, and the USA) integrated feedback from mental health service users into the development of the chapter on mental, behavioural, and neurodevelopmental disorders for ICD-11. The ICD-11 will be used for health reporting from January, 2022. As a reporting standard and diagnostic classification system, ICD-11 will be highly influential by informing policy, clinical practice, and research that affect mental health service users. We report here the first study to systematically seek and collate service user perspectives on a major classification and diagnostic guideline. Focus groups were used to collect feedback on five diagnoses: depressive episode, generalised anxiety disorder, schizophrenia, bipolar type 1 disorder, and personality disorder. Participants were given the official draft diagnostic guidelines and a parallel lay translation. Data were then thematically analysed, forming the basis of co-produced recommendations for WHO, which included features that could be

added or revised to better reflect lived experience and changes to language that was confusing or objectionable to service users. The findings indicated that an accessible lay language version of the ICD-11 could be beneficial for service users and their supporters.

DOI: 10.1016/S2215-0366(19)30093-8
PMID: 31296444 [Indexed for MEDLINE]

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Hydatid disease is a common disease in developing countries. The usual presentations include lung and liver cysts. Herein, we present a case of extrapulmonary, intrathoracic hydatid cyst with chest wall and spinal cord involvement, with the patient having symptoms of neurological compression and chest pain. Contrast-enhanced computed tomography (CECT) showed a large, septated, cystic mass which was eroding third, fourth and fifth ribs posteriorly, undermining the transverse process and pushing the spinal cord to the right through the intervertebral foramen. The diagnosis was confirmed by aspiration cytology. The patient was treated with albendazole as she refused surgery, which showed complete resolution of symptoms within one month.

DOI: 10.7759/cureus.5612
PMCID: PMC6822915
PMID: 31700725

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OBJECTIVES: The authors investigated the impact of coronary artery bypass grafting (CABG) on first and recurrent hospitalization in this population.
BACKGROUND: In the STICH (Surgical Treatment for Ischemic Heart Failure) trial, CABG reduced all-cause death and hospitalization in patients with and ischemic cardiomyopathy and left ventricular ejection fraction <35%.
METHODS: A total of 1,212 patients were randomized (610 to CABG + optimal medical therapy [CABG] and 602 to optimal medical therapy alone [MED] alone) and followed for a median of 9.8 years. All-cause and cause-specific hospitalizations were analyzed as time-to-first-event and as recurrent event analysis.

RESULTS: Of the 1,212 patients, 757 died (62.4%) and 732 (60.4%) were hospitalized at least once, for a total of 2,549 total all-cause hospitalizations. Most hospitalizations (66.2%) were for cardiovascular causes, of which approximately one-half (907 or 52.9%) were for heart failure. More than 70% of all hospitalizations (1,817 or 71.3%) were recurrent events. The CABG group experienced fewer all-cause hospitalizations in the time-to-first-event (349 CABG vs. 383 MED, adjusted hazard ratio [HR]: 0.85; 95% confidence interval [CI]: 0.74 to 0.98; p = 0.03) and in recurrent event analyses (1,199 CABG vs. 1,350 MED, HR: 0.78, 95% CI: 0.65 to 0.94; p < 0.001). This was driven by fewer total cardiovascular (CV) hospitalizations (744 vs. 968; p < 0.001, adjusted HR: 0.66, 95% CI: 0.55 to 0.81; p = 0.001), the majority of which were due to HF (395 vs. 512; p < 0.001, adjusted HR: 0.68, 95% CI: 0.52-0.89; p = 0.005). We did not observe a difference in non-CV events.
CONCLUSIONS: CABG reduces all-cause, CV, and HF hospitalizations in time-to-first-event and recurrent event analyses. (Comparison of Surgical and Medical Treatment for Congestive Heart Failure and Coronary Artery Disease [STICH]; NCT00023595).

DOI: 10.1016/j.jchf.2019.04.018
PMID: 31521682

66: Jain K, Sankar MJ, Nangia S, Ballambattu VB, Sundaram V, Ramji S, Plakkal N, Kumar P, Jain A, Sivanandan S, Vishnubhatla S, Chellani H, Deorari A, Paul VK, Agarwal R. Causes of death in preterm neonates (<33 weeks)Â born in tertiary care hospitals in India: analysis of three large prospective multicentric cohorts. J Perinatol. 2019 Sep;39(Suppl 1):13-19. doi: 10.1038/s41372-019-0471-1. PubMed PMID: 31485016.

OBJECTIVE: To estimate the direct causes of mortality among preterm neonates <33 weeks' gestation by examining three large multisite, hospital-based datasets in India.
METHOD: Three prospective hospital-based datasets: the National Neonatal Perinatal Database (NNPD) of India, the Delhi Neonatal Infection Study (DeNIS) cohort, and the Goat Lung Surfactant Extract (GLSE)-Plus cohort were analyzed to study the causes of death among preterm neonates of less than 33 weeks' gestation admitted to the participating tertiary care hospitals in India.
RESULTS: A total of 8024 preterm neonates were admitted in the three cohorts with 2691 deaths. Prematurity-related complications and sepsis contributed to 53.5% and 19.8% of deaths in the NNPD cohort, 51.0% and 25.0% in the DeNIS cohort, and 39.7% and 40.9% in GLSE-Plus cohort, respectively.
CONCLUSIONS: Nearly a quarter (20-40%) of preterm neonates less than 33 weeks' gestation admitted to Indian NICUs died of sepsis. The study results have implications for health policies targeted to reduce the neonatal mortality rate in India.

DOI: 10.1038/s41372-019-0471-1
PMID: 31485016

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Vaidya U, Mehta A, Arora K, Mondkar J, Arya S, Bahl M, Utture A, Manerkar S, Bhat SR, Parikh T, Kumar M, Bajpai A, Sivanandan S, Dhawan PK, Vishwakarma G, Bangera S, Kumar S, Gopalakrishnan S, Jindal A, Natarajan CK, Saini A, Karunanidhi S, Malik M, Narang P, Kaur G, Yadav CP, Deorari A, Paul VK, Agarwal R. Goat lung surfactant for treatment of respiratory distress syndrome among preterm neonates: a multi-site randomized non-inferiority trial. J Perinatol. 2019 Sep;39(Suppl 1):3-12. doi: 10.1038/s41372-019-0472-0. PubMed PMID: 31485014.

OBJECTIVE: To investigate the safety and efficacy of goat lung surfactant extract (GLSE) compared with bovine surfactant extract (beractant; Survanta®, AbbVie, USA) for the treatment of neonatal respiratory distress syndrome (RDS).
STUDY DESIGN: We conducted a double-blind, non-inferiority, randomized trial in seven Indian centers between June 22, 2016 and January 11, 2018. Preterm neonates of 26 to 32 weeks gestation with clinical diagnosis of RDS were randomized to receive either GLSE or beractant. Repeat dose, if required, was open-label beractant in both the groups. The primary outcome was a composite of death or bronchopulmonary dysplasia (BPD) at 36 weeks postmenstrual age (PMA). Interim analyses were done by an independent data and safety monitoring board (DSMB).
RESULT: After the first interim analyses on 5% enrolment, the "need for repeat dose(s) of surfactant" was added as an additional primary outcome and enrolment restricted to intramural births at five of the seven participating centers. Following second interim analysis after 98 (10% of 900 planned) neonates were enroled, DSMB recommended closure of study in view of inferior efficacy of GLSE in comparison to beractant. There was no significant difference in the primary outcome of death or BPD between GLSE group (n = 52) and beractant group (n = 46) (50.0 vs. 39.1%; OR 1.5; 95% CI 0.7-3.5; p = 0.28). The need for repeat dose of surfactant was significantly higher in GLSE group (65.4 vs. 17.4%; OR 9.0; 95% CI 3.5-23.3; p < 0.001).
CONCLUSIONS: Goat lung surfactant was less efficacious than beractant (Survanta®) for treatment of RDS in preterm infants. Reasons to ascertain inferior efficacy of goat lung surfactant requires investigation and possible mitigating strategies in order to develop a low-cost and effective surfactant.

DOI: 10.1038/s41372-019-0472-0
PMID: 31485014

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Context: Noncompliance with thyroxine therapy is the most common cause of poor control of hypothyroidism. An open-label prospective study to compare once-weekly thyroxine (OWT) with standard daily thyroxine (SDT) was undertaken.
Design: Patients taking thyroxine doses of >3 µg/kg/d, with or without normalization of TSH, were included and administered directly observed OWT or nonobserved SDT according to patient preference based on their weight for 6 weeks. Furthermore, patients on OWT were advised to continue the same at home without supervision.
Results: Twenty six of 34 patients on OWT and 7 of 18 patients on SDT achieved a TSH <10 µIU/mL ($P < 0.05$), and 2 patients from the SDT arm were lost to follow-up. During home treatment, 15 of 25 at 12 weeks and 19 of 23 contactable patients at a median follow-up of 25 months maintained TSH below target. Thyroxine absorption test was unable to predict normalization of TSH at 6 weeks of OWT therapy. No adverse events were seen with OWT-treated patients over the 12-week follow-up period. OWT has significantly higher efficacy (OR = 5.1) than SDT for patients with thyroxine-resistant hypothyroidism and is not associated with side effects.
Conclusion: OWT benefits a majority of patients in the long-term treatment of thyroxine-resistant hypothyroidism, in the real-world setting.

DOI: 10.1210/js.2019-00212
PMCID: PMC6834071
PMID: 31723717

71: Joshi R, Tripathi M, Gupta P, Goyal A, Gupta YK. Depression in patients receiving pharmacotherapy for epilepsy: An audit in a tertiary care centre. Pharmacol Rep. 2019 Sep;71(5):848-854. doi: 10.1016/j.pharep.2019.04.021. Epub 2019 May 1. PubMed PMID: 31994048.

BACKGROUND: The association of depression and epilepsy is thought to be bidirectional. The present study aimed to evaluate the prevalence of depression in patients on antiepileptic drugs (AEDs) and factors affecting it.
METHODS: In this preliminary cross sectional study, patients at epilepsy clinic of a tertiary care centre were studied for occurrence of depression, using Hospital Anxiety and Depression Scale (HADS-D) and Patient Health Questionnaire (PHQ-2) scales. Correlation analysis was carried out to determine the factors associated with presence of depression in these patients.
RESULTS: A total of 12 AEDs (maximum 5 per patient including older and newer) were prescribed to 933 patients in different treatment regimens over a period of 3 years. The median age of the patients was 22 years (10-77) and among them 63.5% were men. Mild and clinically relevant depression occurred in 279 (29.9%) and 223 (23.9%) patients, respectively. Mean HADS-D and PHQ-2 score was significantly higher with polytherapy as compared to monotherapy ($p < 0.001$). Patients on levetiracetam exhibited significantly higher HADS-D score in comparison to phenytoin ($p < 0.001$), carbamazepine ($p < 0.001$) and sodium valproate ($p < 0.05$). However, there was no significant difference in PHQ score among patients on monotherapy of different AEDs. Multivariate regression analysis suggested correlation between depression and seizure frequency, total number of AEDs and their load ($p < 0.001$).
CONCLUSION: Depressive symptoms were found to be present in more than half of the patients with epilepsy which require detailed work up for depression.

Levetiracetam was found to be associated with a higher incidence of subclinical depression which needs further investigation.

DOI: 10.1016/j.pharep.2019.04.021
PMID: 31994048

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The bowel is a challenging abdominal organ to image. A variety of bowel disorders such as congenital, developmental, inflammatory, infectious and neoplastic lesions can affect children and most of them are either unique to this age group or have a distinct clinico-radiological appearance compared to adults. Imaging forms an integral part of management of these disorders. This article will cover inflammatory/infective, neoplastic and miscellaneous disorders affecting the bowel. The authors will highlight the salient imaging features for those entities.

DOI: 10.1007/s12098-019-02878-8
PMID: 30790185

73: Kandasamy D, Sharma R, Gupta AK. Bowel Imaging in Children: Part 1. Indian J Pediatr. 2019 Sep;86(9):805-816. doi: 10.1007/s12098-019-02877-9. Epub 2019 Feb 14. Review. PubMed PMID: 30767163.

The bowel is a challenging abdominal organ to image. The main reason is the variable location, convoluted morphology and motility. A variety of bowel disorders such as congenital, developmental, inflammatory, infectious and neoplastic lesions can affect children and most of them are either unique to this age group or have a distinct clinico-radiological appearance compared to adults. Imaging plays a very important role in characterizing these lesions and further guiding the management. This is the first part of the series on imaging of bowel disorders in children. This article will cover the imaging modalities used for the evaluation of bowel and the imaging features of congenital /developmental disorders.

DOI: 10.1007/s12098-019-02877-9
PMID: 30767163

74: Kannan M, Ahmad F, Saxena R. Platelet activation markers in evaluation of thrombotic risk factors in various clinical settings. Blood Rev. 2019 Sep;37:100583. doi: 10.1016/j.blre.2019.05.007. Epub 2019 May 22. Review. PubMed PMID: 31133440.

Platelets play a major role in primary hemostasis and thrombus formation. After vascular injury, platelets adhere to injured site and rapidly change their shape that switches the resting platelets to active state. Activated platelets aggregate and secrete biologically active intermediate substances that further potentiate platelet activation through autocrine as well as paracrine mechanisms. The activated platelet expresses certain proteins that are not seen on the resting platelets, thus these proteins serve as markers of platelet activation. Other subsequent events of platelet activation include release of microvesicles

and formation of complexes with other circulating cells, like monocytes and neutrophils. Platelet activation markers are useful tools in evaluating risk factors of thrombosis in a variety of clinical conditions. Increased platelet activation has been associated with various pathological conditions such as acute coronary syndrome, stroke, peripheral vascular disease and other inflammatory diseases. The advancement in technologies helps in determining the status of platelet activation in such clinical conditions. This article focuses on the sources, mechanism and diagnosis of platelet activation and their clinical implications.

DOI: 10.1016/j.blre.2019.05.007
PMID: 31133440 [Indexed for MEDLINE]

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Anaemia is a severe public health problem amongst all vulnerable age groups in India. The National Nutritional Anaemia Prophylaxis Programme initiated in 1970, was revised and expanded to include beneficiaries from all age groups namely children aged 6-59 months, 5-10 yr, adolescents aged 10-19 yr, pregnant and lactating women and women in reproductive age group under the National Iron Plus Initiative (NIPI) programme in 2011. The dose of iron, frequency and duration of iron supplementation and roles and responsibilities of the functionaries were described. At present, the coverage of beneficiaries with iron and folic acid has been poor at the national level. The prevalence of anaemia has continued to remain high during the last 60 years, and there has been no significant change in the scenario due to various reasons. The constraints in implementation and measures to improve the NIPI programme are discussed in the current article.

DOI: 10.4103/ijmr.IJMR_1782_18
PMID: 31719294

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Chest radiographs and CT scans have been the cornerstone of pulmonary imaging given their advantages of being rapid and easily available techniques. However, a significant concern with their use in the pediatric population is the associated ionisation radiation. The use of magnetic resonance imaging (MRI) in pulmonary imaging has lagged behind its adoption in other organ systems. Previously, the lung parenchyma was considered difficult to evaluate by magnetic resonance due to low proton density in the pulmonary tissue, susceptibility artefacts within the lungs, and respiratory motion artefacts. However, in recent years, there have been a multitude of technical advancements to overcome these limitations. MRI can

be an excellent radiation-free alternative in patients who require protracted follow-up like in cases such as cystic fibrosis, complicated pneumonias, tuberculosis and mediastinal neoplasms. An added advantage of MRI is that it can provide functional information in addition to the structural information provided by traditional imaging techniques. One of the major reasons of limited use of MRI despite its established utility is the lack of clarity regarding its indications, and a paucity of data on tailored MRI protocols customised to clinical needs. This article aims to review the basic MRI techniques, indications and terminologies used in chest imaging, with special emphasis on imaging findings of common pathologies in the pediatric population.

DOI: 10.1007/s12098-018-02852-w
PMID: 30719641

78: Katyal J, Arora E, Gupta YK. Impact of increased focus on pharmacovigilance on knowledge and attitude towards adverse drug reaction reporting among medical students in India. Int J Risk Saf Med. 2019 Sep 30. doi: 10.3233/JRS-195012. [Epub ahead of print] PubMed PMID: 31594254.

BACKGROUND: Recent years have seen a surge in pharmacovigilance (PV) related activities in India. In the present study the impact of these initiatives on medical students from across the country was evaluated to identify their effectiveness, lacunae and arrive at remedial measures.
METHODS: A cross-sectional, questionnaire based study was conducted. The survey questionnaire consisted of 28 multiple response items. The areas covered included subject knowledge (theoretical and practical), attitude and awareness towards pharmacovigilance.
RESULTS: The survey participants (n=253) were from 71 medical colleges and 17 states across India. While 60% of the participants were familiar with the term 'Pharmacovigilance', many could not distinguish side effect and adverse drug reaction. The majority was unaware that 'Periodic Safety Update Report' (PSURs) is a mandatory pharmacovigilance activity by the industry. 91% felt reporting is a useful practice and causes for under-reporting are a lack of awareness followed by attitude, misconceptions about what to report, fear of litigation and interestingly the least important is lack of time. However, most were reluctant to have reporting as mandatory tool; they would rather use it voluntary.
CONCLUSION: In spite of collaborative and synchronized efforts by various agencies there is a need to further improve the PV milieu in India by confidence building exercises, imparting training on PV programme, updating of the current knowledge on PV and also sustaining motivation.

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PMID: 31594254

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82: Kharbanda OP, Ivaturi A, Priya H, Dorji G, Gupta S. Digital possibilities in the prevention and early detection of oral cancer in the WHO South-East Asia Region. WHO South East Asia J Public Health. 2019 Sep;8(2):95-100. doi: 10.4103/2224-3151.264853. PubMed PMID: 31441444.

Cancers of the lip and oral cavity are the most common cancers among men in the World Health Organization (WHO) South-East Asia Region. Most cancers of the oral cavity are attributable to tobacco smoking, smokeless tobacco use and areca-nut product use, alone or in combination, and excessive consumption of alcohol. These risk factors are highly prevalent in parts of the region. This paper outlines an integrated framework for oral cancer prevention, which includes a strengthened primary health-care workforce, enhanced community engagement and a positive policy environment. Operationalizing this framework could be greatly facilitated by the application of digital technologies. Robust evidence exists for the effectiveness of using appropriately trained primary health-care workers to screen for oral cancer by oral visual examination; this can be combined with counselling for riskbehaviour modification as part of an overall strategy on noncommunicable diseases. This needs to be supported by greater overall community engagement, for example to tackle low levels of awareness of the harmful effects of smokeless tobacco and areca-nut products. A strong policy environment that supports and promotes these efforts is essential, along with the enforcement of the measures required by the WHO Framework Convention on Tobacco Control. Despite the burden of disease, oral cancer has been a neglected area of public health. This paper considers how the positively disruptive effects of digital technology may enable much-needed acceleration in prevention and control efforts.

DOI: 10.4103/2224-3151.264853
PMID: 31441444

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Hepatocellular carcinoma (HCC) is the 6th most common cancer and the second most common cause of cancer-related mortality worldwide. There are currently no universally accepted practice guidelines for the diagnosis of HCC on imaging owing to the regional differences in epidemiology, target population, diagnostic imaging modalities, and staging and transplant eligibility. Currently available regional and national guidelines include those from the American Association for the Study of Liver Disease (AASLD), the European Association for the Study of the Liver (EASL), the Asian Pacific Association for the Study of the Liver, the Japan Society of Hepatology, the Korean Liver Cancer Study Group, Hong Kong, and the National Comprehensive Cancer Network in the United States. India with its large population and a diverse health infrastructure faces challenges unique to its population in diagnosing HCC. Recently, American Association have introduced a Liver Imaging Reporting and Data System (LIRADS, version 2017, 2018) as an attempt to standardize the acquisition, interpretation, and reporting of liver lesions on imaging and hence improve the coherence between radiologists and clinicians and provide guidance for the management of HCC. The aim of the present consensus was to find a common ground in reporting and interpreting liver lesions pertaining to HCC on imaging keeping LIRADSv2018 in mind.

DOI: 10.1016/j.jceh.2019.07.005
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PMID: 31695253

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A 40-year-old male, diagnosed to have WPW syndrome and symptomatic with recurrent palpitations, was taken up for radiofrequency ablation. There was difficulty in coronary sinus cannulation. Coronary venogram revealed coronary sinus atresia with persistent left superior vena cava, and collateral venous pathways draining into the right atrium. This case is discussed for the rare coronary venous anomaly, its embryology and the difficulties in the management during electrophysiological studies.

DOI: 10.1016/j.ipej.2019.09.003
PMCID: PMC6823679
PMID: 31521673

86: Kumar A, Shete V, Singh M, Satyarthee GD, Agrawal D, Singh PK, Sharma MC, Chandra PS, Laythalling RK, Suri A, Kale SS. Intracranial Meningeal Hemangiopericytomas: An Analysis of Factors Affecting Outcome in 39 Cases Managed with Multimodality Treatment. Neurol India. 2019 Sep-Oct;67(5):1266-1273. doi: 10.4103/0028-3886.271251. PubMed PMID: 31744956.

Aim: To retrospectively evaluate the outcome of patients with intracranial

meningeal hemangiopericytomas (MHPCs) and to analyze various factors for recurrence and survival in these patients.
Materials and Methods: We retrospectively reviewed the clinical data of 39 patients undergoing microsurgical resection for MHPCs at our institute from 2009 to 2015.
Results: Gross total excision (GTE) was achieved in 27 (69.2%) patients, whereas 12 (30.8%) underwent subtotal excision (STE). A total of 25 patients received radiotherapy (RT) (Conventional RT-15; GKT-10), 21 patients had a low grade tumor, while 18 had an anaplastic variant. Twenty patients (51.3%) developed recurrences and the average recurrence-free survival (RFS) was 56 months (range: 12-180 months). Eight patients (20.5%) died during the study period. The average overall survival (OS) was 77.2 months (range: 36-192 months). Two patients (5.1%) developed systemic metastases during follow-up. Patient age was not found to affect RFS or OS. GTE was associated with prolonged RFS and OS but the impact was not statistically significant (P-values = 0.160 and 0.414, respectively). Low tumor grade was associated with statistically significant longer RFS as well as OS (P-values = 0.049 and 0.013, respectively). Addition of adjuvant RT was associated with statistically significant prolongation of RFS (P value = 0.016); however, it was not associated with statistically significant OS benefits (P-value = 0.758).
Conclusions: Our study suggests that a greater extent of excision, lower tumor grade, and addition of adjuvant RT have a positive impact on both RFS and OS; however, low grade and adjuvant RT were the only factors associated with statistically significant prolongation of RFS and only tumor grade was associated with statistically significant OS benefits.

DOI: 10.4103/0028-3886.271251
PMID: 31744956

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Instrumentation breakage around hip joint can pose a challenging situation considering its vicinity to several vital structures. Broken fragments carry the risk of migration and thus should be removed as early as possible. A case of successful retrieval of broken tip of cephalomedullary lag screw reamer of a cephalomedullary nail, in basicervical region of femoral neck, during fixation of a subtrochanteric femoral fracture has been reported. Literature review has been done to suggest techniques to tackle similar situations using simple and commonly available instruments.

DOI: 10.1016/j.jcot.2019.01.014
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PMID: 31528077

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89: Kumar A, Lakshminarayanan D, Joshi N, Vaid S, Bhoi S, Deorari A. Triaging the triage: reducing waiting time to triage in the emergency department at a tertiary care hospital in New Delhi, India. Emerg Med J. 2019 Sep;36(9):558-563. doi: 10.1136/emermed-2019-208577. Epub 2019 Jul 31. PubMed PMID: 31366625.

BACKGROUND: Prolonged wait times prior to triage outside the emergency department (ED) were a major problem at our institution, compromising patient safety. Patients often waited for hours outside the ED in hot weather leading to exhaustion and clinical deterioration. The aim was to decrease the median waiting time to triage from 50 min outside ED for patients to <30 min over a 4-month period.
METHODS: A quality improvement (QI) team was formed. Data on waiting time to triage were collected between 12 pm and 1 pm. Data were collected by hospital attendants and recorded manually. T1 was noted as a time of arrival outside the ED, and T2 was noted as the time of first medical contact. The QI team used plan-do-study-act cycles to test solutions. Change ideas to address these gaps were tested during May and June 2018. Change ideas were focused on improving the knowledge and skills of staff posted in triage and reducing turnover of triage staff. Data were analysed using run chart rules.
RESULTS: Within 6 weeks, the waiting time to triage reduced to <30 min (median, 12 min; IQR, 11 min) and this improvement was sustained for the next 8 weeks despite an increase in patient load.
CONCLUSION: The authors demonstrated that people new to QI could use improvement methods to address a specific problem. It was the commitment of the frontline staff, with the active support of senior leadership in the department that helped this effort succeed.

DOI: 10.1136/emermed-2019-208577
PMID: 31366625 [Indexed for MEDLINE]

90: Kumar A, Kumar P, Pareek V, Faiq MA, Narayan RK, Raza K, Prasoon P, Sharma VK. Neurotrophin mediated HPA axis dysregulation in stress induced genesis of psychiatric disorders: Orchestration by epigenetic modifications. J Chem Neuroanat. 2019 Dec;102:101688. doi: 10.1016/j.jchemneu.2019.101688. Epub 2019 Sep 27. Review. PubMed PMID: 31568825.

Apart from their established role in embryonic development, neurotrophins (NTs) have diverse functions in the nervous system. Their role in the integration of physiological and biochemical aspects of the nervous system is currently attracting much attention. Based on a systematic analysis of the literature, we here propose a new paradigm that, by exploiting a novel role of NTs, may help explain the genesis of stress-related psychiatric disorders, opening new avenues for better management of the same. We hypothesize that NTs as an integrated network play a crucial role in maintaining an indivdual's psychological wellbeing. Given the evidence that stress can induce chronic disruption of the hypothalamic-pituitary-adrenal (HPA) axis which, in turn, is causally linked to several psychiatric disorders, this function may be mediated through the homeostatic mechanisms governing regulation of this axis. In fact, NTs, such as nerve growth factor (NGF) and brain derived neurotrophic factor (BDNF) are known to participate in neuroendocrine regulation. Recent studies suggest epigenetic

modification of NT-HPA axis interplay in the precipitation of psychiatric disorders. Our article highlights why this new knowledge regarding NTs should be considered in the etiogenesis and treatment of stress-induced psychopathology.

DOI: 10.1016/j.jchemneu.2019.101688
PMID: 31568825

91: Kumar N, Mehra NK, Kanga U, Kaur G, Tandon N, Chuzho N, Mishra G, Neolia SC. Diverse human leukocyte antigen association of type 1 diabetes in north India. J Diabetes. 2019 Sep;11(9):719-728. doi: 10.1111/1753-0407.12898. Epub 2019 Feb 7. PubMed PMID: 30614662.

BACKGROUND: Type 1 diabetes (T1D) is a complex disease, with involvement of various susceptibility genes. Human leukocyte antigen (HLA) on chromosome 6p21 is major susceptibility region. This study examined genetic association of HLA genes with T1D.
METHODS: The study recruited 259 T1D patients and 706 controls from north India. PCR-SSP and LiPA were used to type HLA Class I and II alleles.
RESULTS: At HLA Class I locus, HLA-A*02, A*26, B*08 and B*50 were significantly increased in patients vs controls (39.8% vs 28.9% [Bonferroni-corrected P {Pc }=0.032], 24.7% vs 9.6% [Pc =4.83×10-8], 37.2% vs 15.7% [Pc =1.92× 10-9], and 19.4% vs 5.5% [Pc =4.62×10-9], respectively). Similarly, in Class II region, DRB1*03 showed a strong positive association with T1D (78.7% vs 17.5% in controls; P=1.02×10-9). Association of DRB1*04 with T1D (28.3% vs 15.5% in controls; Pc =3.86×10-4) was not independent of DRB1*03. Negative associations were found between T1D and DRB1*07, *11, *13, and *15 (13.8% vs 26.1% in controls [Pc =0.00175], 3.9% vs 16.9% in controls [Pc =6.55× 10-6], 5.5% vs 21.6% in controls [Pc =2.51×10-7], and 16.9% vs 43.9% in controls [Pc =9.94× 10-10], respectively). Compared with controls, patients had significantly higher haplotype frequencies of A*26-B*08-DRB1*03-DQA1*05-DQB1*02 (10.43% vs 1.96%; P=7.62×10-11), A*02-B*50-DRB1*03-DQA1*05-DQB1*02 (6.1% vs 0.71%; P=2.19×10-10), A*24-B*08-DRB1*03-DQA1*05-DQB1*02 (4.72% vs 0.8%; P=5.4×10-7), A*02-B*08-DRB1*03-DQA1*05-DQB1*02 (2.36% vs 0.18%; P=3.6×10-5), and A*33-B*58-DRB1*03-DQA1*05-DQB1*02 (4.33% vs 1.25%; P=0.00019).
CONCLUSIONS: In north India, T1D is independently associated only with HLA-DRB1*03 haplotypes, and is negatively associated with DRB1*07, *11, *13, and *15.

Publisher: 摘要: 背景 1型糖尿病(T1D)是一**种复**杂的疾病, **涉**及多**种**易感基因。6p21染色体上的人类白细胞抗原(Human leukocyte antigen, HLA)是主要的易感区域。本研究调查了HLA基因与T1D之间的遗传相**关**性。 方法 本研究在印度北部招募了259名T1D患者与706名对照者。使用PCR-SSP与LiPA来测定HLA I类与II类等位基因。 结果 在HLA I类位点, T1D患者组的HLA-A*02、A*26、B*08以及B*50与对照组相比均显著增加(分别为39.8%与28.9% [Bonferroni校正P值{Pc } =0.032]、24.7%与9.6%[Pc =4.83×10-8]、37.2%与15.7% [Pc =1.92×10-9]、以及19.4%与5.5%[Pc =4.62×10-9])。同样, 在HLA II类区域, 发现DRB1*03与T1D之间具有强烈的正相**关**(78.7%,

对照组为17.5%；P =1.02×10-9)。DRB1*04与T1D之间的相**关**性(28.3%, 对照组为15.5%；Pc =3.86×10-4
)依赖于DRB1*03。发现T1D与DRB1*07、*11、*13以及*15之间呈负相**关**(分别为13.8%,
对照组为26.1%[Pc
=0.00175]；3.9%, 对照组为16.9%[Pc =6.55×10-6]；5.5%, 对照组为21.6%[Pc = 2.51×10-7
]以及16.9%, 对照组为43.9%[Pc =9.94×10-10])。与对照组相比,
T1D患者的A*26-B*08-DRB1*03-DQA1*05-DQB1*02(10.43%与1.96%；P =7.62×10-11
)、A*02-B*50-DRB1*03-DQA1*05-DQB1*02(6.1%与0.71%；P =2.19×10-10
)、A*24-B*08-DRB1*03-DQA1*05-DQB1*02(4.72%与0.8%；P =5.4×10-7
)、A*02-B*08-DRB1*03-DQA1*05-DQB1*02(2.36%与0.18%；P =3.6×10-5)以及A
*33-B*58-DRB1*03-DQA1*05-DQB1*02(4.33%与1.25%；P =0.00019)单倍型频率明显更高。 结论
在印度北部,
T1D仅与HLADRB1*03单倍型独立相**关**, 并且与DRB1*07、*11、*13以及*15之间呈负相**关**。.

DOI: 10.1111/1753-0407.12898
PMID: 30614662

92: Kumar P, Sharma A, Das S, Srivastava R, Gupta N. Association of 4-basepair G-to-A transition in the 5'-untranslated region of ANKH gene with selected patients of primary knee osteoarthritis: A cross sectional study. J Family Med Prim Care. 2019 Sep 30;8(9):2937-2941. doi: 10.4103/jfmpc.jfmpc_471_19. eCollection 2019 Sep. PubMed PMID: 31681671; PubMed Central PMCID: PMC6820404.

Method: A cohort study was carried out for a year to evaluate the presence of G-to-A transition in 5'-untranslated region of ankylosis human (ANKH) gene in Indian Khatri patients (closely resembling Europeans of primary knee osteoarthritis (OA), residing in Lucknow, India.
Results: In the total participants, 25 were Khatri primary knee OA patients (cases) residing in Lucknow and 101 were random blood donors' samples (controls) collected from a blood bank. All were studied for the abovementioned mutation using real-time polymerase chain reaction (RT-PCR). GG genotype was present in 72.3% of controls and 76% of Khatri knee OA patients. The studied G-to-A mutation was found to be positive in 24.8% of controls and 16% of cases, odds ratio (95% confidence interval) being 0.6 (0.19-1.98, P = 0.42). The frequency of AA (D) genotype found around 3% (cases) and 8% (controls) with P value of 0.70. The combined frequency of both homozygous and heterozygous mutation (GA and AA) in the studied population was 28 (27.7%) in controls and 6 (24%) in cases with the odds ratio (OD) ratio of 0.82 (0.29-2.27, P = 0.70). No significant differences were observed at both genotype and allelic level in the distribution of ANKH-4 G-to-A gene polymorphism in studied subjects.
Conclusion: This study did not show any significant G to A mutation in the studied subjects.

DOI: 10.4103/jfmpc.jfmpc_471_19
PMCID: PMC6820404
PMID: 31681671

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94: Kumar S, Kumar R, Gogia A, Arava S, Tripathi M. Esophageal Metastases from Breast Carcinoma: a Rare Delayed Metastases After 15Â Years. J Gastrointest Cancer. 2019 Sep;50(3):674-677. doi: 10.1007/s12029-018-0109-0. PubMed PMID: 29717415.

95: Kumar V, Azad SV, Vohra R, Venkatesh P. Serous macular detachment in nanophthalmos: A manifestation of pachychoroid spectrum. Am J Ophthalmol Case Rep. 2019 Jul 17;15:100522. doi: 10.1016/j.ajoc.2019.100522. eCollection 2019 Sep. PubMed PMID: 31384695; PubMed Central PMCID: PMC6661461.

Purpose: The purpose of this article is to report serous macular detachment (SMD) similar to that seen in central serous chorioretinopathy (CSCR) in patients with nanophthalmos.
Observation: It is a retrospective case series from a tertiary eye care center in India. Multi modal imaging features of eyes with serous macular detachment in patients with nanophthalmos including colour fundus photographs, short wave autofluorescence, fundus fluorescein angiography and optical coherence tomography were studied. In addition axial length, anterior chamber depth, lens thickness and subfoveal choroidal thickness were measured. The eyes were treated with laser photocoagulation to the focal leak seen on fluorescein angiography. The patients were followed up for 12-18 months.
Results: Three eyes of three patients having serous macular detachment in nanophthalmos were identified. All three eyes had axial length <21mm, subfoveal choroidal thickness >450 microns and a focal leak on fluorescein angiography. Two eyes had serous pigment epithelial detachments underneath the SMD as well. Two eyes had peripheral pigmentary changes due to resolved subretinal fluid. The SMD resolved completely in two eyes and partially in one eye following focal laser photocoagulation.
Conclusion and importance: Serous macular detachments bearing features similar to that of CSCR can occur in the setting of nanophthalmos. These may represent manifestation of thick choroid or may represent forme fruste choroidal effusion.

DOI: 10.1016/j.ajoc.2019.100522
PMCID: PMC6661461
PMID: 31384695

96: Kumawat D, Kumar V, Sahay P, Nongrem G, Chandra P. Bilateral asymmetrical partial heterochromia of iris and fundus in Waardenburg syndrome type 2A with a novel MITF gene mutation. Indian J Ophthalmol. 2019 Sep;67(9):1481-1483. doi: 10.4103/ijo.IJO_181_19. PubMed PMID: 31436206; PubMed Central PMCID: PMC6727726.

A 3-year-old girl presented with bilateral asymmetrical partial heterochromia of iris and fundus. The parents also complained of bilateral hearing loss in the child. Suspecting an auditory-pigmentary syndrome, systemic and genetic evaluation was performed. The child had profound sensory-neural hearing loss. Targeted gene sequencing revealed a novel nonsense variation in exon 9 of the MITF gene (chr3:70008440A>T) that was pathogenic for Waardenburg syndrome (WS)

type 2A. This case highlights the characteristics of the iris and fundus hypochromia, which may provide a clue toward the diagnosis of WS.

DOI: 10.4103/ijo.IJO_181_19
PMCID: PMC6727726
PMID: 31436206

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98: Madhusudhan KS, Srivastava DN. Letter to the editor. Abdom Radiol (NY). 2019 Sep;44(9):3207-3208. doi: 10.1007/s00261-019-02103-2. PubMed PMID: 31209543.

99: Madhusudhan KS, Das P, Gunjan D, Srivastava DN, Garg PK. IgG4-Related Sclerosing Cholangitis: A Clinical and Imaging Review. AJR Am J Roentgenol. 2019 Dec;213(6):1221-1231. doi: 10.2214/AJR.19.21519. Epub 2019 Sep 11. PubMed PMID: 31509439.

OBJECTIVE. The purpose of this article is to present the pathologic and clinical features of IgG4-related sclerosing cholangitis (ISC), illustrate the associated imaging findings, and discuss treatment of the disorder. CONCLUSION. ISC is an inflammatory disorder involving the biliary system and resulting in strictures. Although often associated with autoimmune pancreatitis, it may be an isolated disease. Differentiation of ISC from other forms of cholangitis and cholangiocarcinoma is difficult but necessary for management. Imaging is important in diagnosing and assessing the extent of disease and planning a management strategy.

DOI: 10.2214/AJR.19.21519
PMID: 31509439

100: Magan D, Yadav RK, Bal CS, Mathur R, Pandey RM. Brain Plasticity and Neurophysiological Correlates of Meditation in Long-Term Meditators: A (18)Fluorodeoxyglucose Positron Emission Tomography Study Based on an Innovative Methodology. J Altern Complement Med. 2019 Dec;25(12):1172-1182. doi: 10.1089/acm.2019.0167. Epub 2019 Sep 26. PubMed PMID: 31556688.
Objective: Previous studies evaluating neurophysiological correlates of long-term meditation are constrained by some methodological limitations. The objective of this study was to measure changes in the regional cerebral glucose metabolism during meditation using a novel methodological approach. Design: The present study was a part of a larger, nonrandomized, single-center open-label study. Setting/location: The study was conducted at the Department of Physiology and Department of Nuclear Medicine and Positron Emission Tomography. A dedicated place was set up as a yoga room, away from the positron emission tomography (PET) scanning room in the Department of Nuclear Medicine and Positron Emission Tomography, where meditators performed meditation in a peaceful environment in a sitting posture with eyes closed. The electroencephalography (EEG) was recorded to affirm the meditation objectively. Subjects: Twenty-four sets of PET scans were obtained at 2 different occasions (baseline and postmeditation within 40 min

of 18FDG [18fluorodeoxyglucose] injection) from 12 apparently healthy, male, right-handed long-term meditators practicing Preksha meditation (since >5 years, at least 5 days a week) who were recruited from a well-established meditation center in Delhi. Outcome measures: Changes in the regional cerebral glucose metabolism during meditation versus baseline. Results: Regional cluster analysis showed significantly activated well-defined areas of fronto-parieto-temporal regions of the right versus left hemisphere during meditation. Interestingly, right homolog of Broca's area and right lentiform nucleus were hyperactive during meditation in all the meditators. Conclusions: Long-term meditation might potentially enhance the explicit functions of specific parts of the right hemisphere, possibly due to neuroplastic changes in the brain. Importantly, results of the current study are encouraging and show a novel methodological approach to acquire 18FDG PET/CT (computed tomography) images. The study was registered at Clinical Trial Registry India (CTRI), CTRI/2009/091/000727.

DOI: 10.1089/acm.2019.0167
PMID: 31556688 [Indexed for MEDLINE]

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102: Mahapatra A, Choudhary V, Sagar R. Assessment of caregiver needs in parents of children suffering from neurodevelopmental disorders in an Indian population. Asian J Psychiatr. 2019 Sep 27:101807. doi: 10.1016/j.ajp.2019.09.025. [Epub ahead of print] PubMed PMID: 31648925.

Parents of children with neurodevelopmental disorders have significant unmet needs in various domains, particularly in a Low-Middle Income Country setting such as India. This study assessed parental needs using a Hindi version of the Caregiver Needs Scale (CNS) and found that 65.7% of the respondents expressed a definite need for help in all the items of the scale. The total score on CNS showed a significant negative correlation with the age of the child. Age of parent showed a significant negative correlation with scores for community and support needs.

DOI: 10.1016/j.ajp.2019.09.025
PMID: 31648925

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104: Maitra S, Bhattacharjee S, Som A. Noninvasive Ventilation and Oxygen Therapy after Extubation in Patients with Acute Respiratory Failure: A Meta-analysis of Randomized Controlled Trials. Indian J Crit Care Med. 2019 Sep;23(9):414-422. doi: 10.5005/jp-journals-10071-23236. PubMed PMID: 31645827; PubMed Central PMCID: PMC6775721.

Background: Role of noninvasive ventilation (NIV) following extubation in patients with acute respiratory failure is debatable. NIV may provide benefit in post surgical patients, but its role in nonsurgical patients is controversial.
Materials and methods: PubMed and Cochrane Central Register of Controlled Trials (CENTRAL) were searched (from 1946 to 20th November 2017) to identify prospective randomized controlled trials, where postextubation NIV has been compared with standard oxygen therapy in adult patients with acute respiratory failure.
Results: Data of 1525 patients from 11 randomized trials have been included in this meta-analysis. Two trials used NIV to manage post-extubation respiratory failure. Pooled analysis found that mortality rate at longest available follow-up [OR (95% CI) 0.84 (0.50, 1.42); p = 0.52] and reintubation rate [OR (95% CI) 0.75 (0.51, 1.09); p = 0.13] were similar between NIV and standard oxygen therapy. NIV did not decrease intubation rate when used as preventive modality [OR (95% CI) 0.65 (0.40, 1.06); p = 0.08]. Duration of ICU stay was also similar in the two groups [MD (95% CI) 0.46 (-0.43, 1.36) days; p = 0.3].
Conclusion: Post extubation NIV in non- surgical patients with acute respiratory failure does not provide any benefit over conventional oxygen therapy.
How to cite this article: Maitra S, Bhattacharjee S, Som A. Noninvasive Ventilation and Oxygen Therapy after Extubation in Patients with Acute Respiratory Failure: A Meta-analysis of Randomized Controlled Trials. Indian J Crit Care Med 2019;23(9):414-422.

DOI: 10.5005/jp-journals-10071-23236
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PMID: 31645827

105: Makkar N, Jain K, Siddharth V, Sarkar S. Patient Involvement in Decision-Making: An Important Parameter for Better Patient Experience-An Observational Study (STROBE Compliant). J Patient Exp. 2019 Sep;6(3):231-237. doi: 10.1177/2374373518790043. Epub 2018 Aug 2. PubMed PMID: 31535012; PubMed Central PMCID: PMC6739683.

Background and Aim: Preferences of service users is an important consideration for developing health-care services. This study aimed to assess the experiences of the patients with substance use disorders who were admitted to a tertiary health-care facility in India.
Method: This cross-sectional sectional study recruited adult inpatients who stayed for a period of 7 days or more. The Picker Patient Experience questionnaire (PPE-15) was used to gather information about the views of the patients about the care received at the center.
Results: Responses were available from 113 inpatients. Majority of the participants were males and were dependent on opioids. The experience was generally positive about being treated with respect and dignity and access to information. The participants were most satisfied with opportunity being given to discuss anxiety and fear about the condition or treatment (91.2% positive response) and least satisfied with differences in responses from doctors and nurses (43.4% positive response). Further attention seemed desired about communication with the staff and patients' involvement in their own treatment-related decision-making.
Conclusion: Efforts need to be made to involve patients in their own

treatment-related decision-making and to improve communication with the treatment team. This might lead to better involvement in treatment process, which could enhance the treatment outcomes in this vulnerable population.

DOI: 10.1177/2374373518790043
PMCID: PMC6739683
PMID: 31535012

106: Malgulwar PB, Nambirajan A, Singh M, Suri V, Sarkar C, Sharma MC. Expression and Clinical Significance of Translation Regulatory Long Non-Coding RNA 1 (TRERNA1) in Ependymomas. Pathol Oncol Res. 2019 Sep 5. doi: 10.1007/s12253-019-00736-8. [Epub ahead of print] PubMed PMID: 31489574.

Long noncoding RNAs (lncRNA) have emerged as vital molecules governing epithelial-to-mesenchymal transition (EMT) in cancers. Translation regulatory RNA 1 (TRERNA1) is one such lncRNA known to enhance the transcriptional activity of the EMT-transcription factor, Snail. We have previously demonstrated differential upregulation of EMT-transcription factors and cadherin switching across various clinico-pathologic-molecular subclasses of ependymomas (EPN). With an aim to analyze the correlation between the expression of TRERNA1 in EPNs, we performed gene expression analysis for TRERNA1 on 75 Grade II/III EPNs and correlated with tumor site, C11orf95-RELA fusions, age, MIB-1 proliferative indices, and outcome wherever available. Upregulation of gene expression levels of TRERNA1 was seen in intracranial EPNs, with highest expression levels in pediatric posterior fossa EPNs. High TRERNA1 expression was found associated with higher proliferative indices ($p = 0.034$) and shorter progression free survival ($p = 0.002$). Our study, for the first time, demonstrates an association between TRERNA1 expressions and pediatric posterior fossa EPNs. Further in-vivo and in-vitro studies are required to confirm these findings and evaluate TRERNA1 as a novel biomarker and potential therapeutic target in childhood PF-EPNs.

DOI: 10.1007/s12253-019-00736-8
PMID: 31489574

107: Malhotra R. Orthopedic Care a-CROSS Community. Indian J Orthop. 2019 Sep-Oct;53(5):583-585. doi: 10.4103/ortho.IJOrtho_382_19. PubMed PMID: 31488923; PubMed Central PMCID: PMC6699220.

108: Manchanda S, Bhalla AS, Kumar R, Kairo AK. Duplication Anomalies of the Internal Auditory Canal: Varied Spectrum. Indian J Otolaryngol Head Neck Surg. 2019 Sep;71(3):294-298. doi: 10.1007/s12070-017-1087-4. Epub 2017 Feb 2. PubMed PMID: 31559193; PubMed Central PMCID: PMC6737140.
Duplication anomalies of the internal auditory canal are rare, with only twenty-one cases reported in literature. These range from incomplete partition and complete partition to true duplication. We present three cases showing this entire spectrum of duplication abnormalities and discuss the role of imaging in the preoperative work up of such patients planned for cochlear implant.

DOI: 10.1007/s12070-017-1087-4
PMCID: PMC6737140 [Available on 2020-09-01]
PMID: 31559193

109: Manoharan D, Kumar A, Krishna A, Bansal VK. Unusual pseudocyst in a wandering spleen. BMJ Case Rep. 2019 Sep 5;12(9). pii: e229948. doi: 10.1136/bcr-2019-229948. PubMed PMID: 31492728.

Pseudocysts of the spleen are rare, generally asymptomatic lesions developing secondary to trauma, infection or infarction. When symptomatic, they typically present as non-specific pain in the left hypochondrium, with or without a palpable lump on clinical examination. However, these conventions fail when they occur in a wandering spleen, making imaging critically important. This report describes an unusual case of a 50-year-old who presented with a large cystic mass in a pelvic spleen; imaging facilitated a successful splenectomy and subsequent histopathology revealed a pseudocyst in a wandering spleen.

DOI: 10.1136/bcr-2019-229948
PMID: 31492728

110: Mathew R, Agrawal N, Aggarwal P, Jamshed N. Atrial Myxoma Presenting as Acute Bilateral Limb Ischemia. J Emerg Med. 2019 Nov;57(5):710-712. doi: 10.1016/j.jemermed.2019.06.006. Epub 2019 Sep 3. PubMed PMID: 31492590.

BACKGROUND: Cardiac myxoma is the most common primary benign tumor of the heart and it has diverse clinical presentations. It is known to embolize into systemic circulation. However, presentation with complete occlusion of the aorta is uncommon.
CASE REPORT: We report an 18-year-old female who presented to the emergency department with features of acute bilateral limb ischemia. Arterial Doppler ultrasonography showed infrarenal aortic occlusion. A bedside cardiac ultrasound was done in the emergency department which clinched the diagnosis of atrial myxoma. Complete surgical excision of the tumor and subsequent histopathologic examination confirmed the diagnosis of atrial myxoma. WHY SHOULD AN EMERGENCY PHYSICIAN BE AWARE OF THIS?: This report puts emphasis on the fact that atrial myxoma, though rare, may be considered as a source of embolism in patients presenting with acute limb ischemia. The importance of bedside ultrasonography for early diagnosis in such presentations is also highlighted.

DOI: 10.1016/j.jemermed.2019.06.006
PMID: 31492590

111: Mathew U, Mittal A, Vyas S, Ray A. Interstitial pneumonia with autoimmune features and platypnea-orthopnea syndrome. BMJ Case Rep. 2019 Sep 6;12(9). pii: e230948. doi: 10.1136/bcr-2019-230948. PubMed PMID: 31494587.

Interstitial pneumonia with autoimmune features (IPAF) is a recently proposed terminology for interstitial lung disease (ILD) with evidence of autoimmunity that does not meet the criteria for a defined connective tissue disease (CTD). Although ILD is well recognised in patients with established CTD, it is rarely the sole presenting feature of CTD. We report a case of 22-year-old male patient, who presented with progressive shortness of breath for 2 months and had features

suggestive of platypnea-orthodeoxia syndrome (POS). Imaging revealed ILD with usual interstitial pneumonia pattern. Patient had features of autoimmune disorder but did not fulfil the criteria for any CTD and hence was labelled as IPAF. His POS was attributed predominantly to the lower lobe disease. The patient responded well to immunosuppressive treatment. A systematic review of literature of all cases with POS due to pulmonary parenchymal involvement has also been done.

DOI: 10.1136/bcr-2019-230948
PMID: 31494587

112: Mathur P, Sharma R, Kandasamy D, Kedia S, Gamanagatti S, Ahuja V. Can ADC be used as a surrogate marker of response to therapy in intestinal tuberculosis? Abdom Radiol (NY). 2019 Sep;44(9):3006-3018. doi: 10.1007/s00261-019-02090-4. PubMed PMID: 31175381.

PURPOSE: To evaluate the utility of Diffusion-weighted imaging (DWI) and apparent diffusion coefficient (ADC) in assessing treatment response in patients of intestinal tuberculosis (ITB).
METHOD AND MATERIALS: MR Enterography (MRE) was done for patients with suspicion of ITB and 19 patients with pre- and post-treatment imaging were included in the analysis. MRE included T1W, T2W, post-contrast T1W, and DWI sequences. DWI was done using b values-0, 400 and 800 s/mm2, and ADC maps were generated. The trace DW images and ADC values were compared before and after therapy. Composite gold standard (clinical, colonoscopic criteria, and biopsy) was used to assess treatment response and to classify into no response, partial response, and complete response.
RESULTS: Thirty-one bowel segments were evaluated at baseline and after treatment in 19 patients. Prior to therapy, restricted diffusion was seen in 29/31 (93.5%) segments. After treatment, patients with either complete or partial response (27/31 segments, 15 patients) showed significant rise in mean ADC values from $1.1 \pm 0.37 \times 10\text{-}3$ to $2.1 \pm 0.64 \times 10\text{-}3$ mm2/s (p value < 0.05), whereas no significant change was found in mean ADC values of non-responders (4/29 segments in 4 patients) which increased from $1.0 \pm 0.1 \times 10\text{-}3$ mm2/s on baseline scan to $1.32 \pm 0.2 \times 10\text{-}3$ mm2/s on post-treatment scan (p value $= 0.318$). An increase in ADC value was found to be a reliable and objective marker of improvement with response to therapy.
CONCLUSION: ADC values show good correlation with treatment response in ITB and can be used for objectively quantifying it.

DOI: 10.1007/s00261-019-02090-4
PMID: 31175381

113: Meena J, Sinha A. Evaluation for Vesicoureteric Reflux Following Febrile Urinary Tract Infections. Indian J Pediatr. 2019 Sep;86(9):773-774. doi: 10.1007/s12098-019-03023-1. Epub 2019 Jul 6. PubMed PMID: 31280408.

114: Meena JP, Brijwal M, Seth R, Gupta AK, Jethani J, Kapil A, Jat KR, Choudhary A, Kabra SK, Dwivedi SN, Dar L. Prevalence and clinical outcome of respiratory viral infections among children with cancer and febrile neutropenia. Pediatr

Hematol Oncol. 2019 Sep;36(6):330-343. doi: 10.1080/08880018.2019.1631920. Epub 2019 Sep 12. PubMed PMID: 31512959.

Background: The role of respiratory viruses (RV) in children with cancer having febrile neutropenic episodes has not been well studied. The objectives of our study were to investigate the prevalence and clinical outcomes of Respiratory viral infection (RVI). Methods: Children with cancer and febrile neutropenia (FN) having acute respiratory infections (ARI) were considered as cases and febrile neutropenic cancer patients without ARI were considered as controls. A throat swab sample was obtained for the detection of 21-respiratory pathogens. Results: A total of 81 episodes of FN in cases and 37 episodes of FN in controls were included. Prevalence of RVI (at least 1 RV) was seen in 76.5% of cases and 48.6% of controls (p=0.005). The mixed-respiratory viruses (co-infections of ≥2 viruses) were seen only in cases (26%) (p=0.00). Rhinovirus (36.8%) and respiratory syncytial virus (13.6%) were the most frequently detected viruses. Median duration of fever before presentation was more in cases with RVI compared to without RVI [2 (1-5) days vs 1 (1-5) day (p=0.012)]. The median total duration of febrile period was 4 (IQR, 3-6) days in cases with RVI and 3 (IQR, 1-4) days in cases without RVI (p=0.005). The median duration of antibiotic days were longer in cases with RVI as compared to patients without RVI [9 (IQR, 7-17) days vs 7 (IQR, 6-10) days (p=0.046)] respectively. Conclusion: There was high prevalence of RVI in children with cancer and FN; more in association with ARI. The RVI were associated with prolonged febrile period and days of antibiotics therapy.

DOI: 10.1080/08880018.2019.1631920
PMID: 31512959

115: Meena RK, Doddamani RS, Gurjar HK, Kumar A, Chandra PS. Type 1.5 Split Cord Malformations: An Uncommon Entity. World Neurosurg. 2020 Jan;133:142-149. doi: 10.1016/j.wneu.2019.09.076. Epub 2019 Sep 23. PubMed PMID: 31557552.

BACKGROUND: Split cord malformations (SCMs) are among the rare congenital spinal anomalies. In 1992, Pang et al. proposed the unified theory of embryogenesis and explained the formation of SCM type 1 and 2. This theory has been widely accepted in the neurosurgical literature, backed by several studies. However, there have been reports in the literature that defy both the classification as well as the formation of SCMs, based on the unified theory of embryogenesis. We report a case of SCM that does not fit into this classification scheme and try to elucidate its embryologic basis, with review of the relevant literature. We also attempt to include this variety into the existing classification system of SCMs.
CASE DESCRIPTION: An 11-year-old boy presented with low backache after trivial trauma. He was neurologically intact. Imaging showed low-lying tethered cord and a midline ventral bony spur (D12, L1) with a single dural sac encasing both the hemicords. Surgical exploration showed a ventral bony spur with 2 hemicords, enclosed in a single dural tube. Excision of the bony spur and detethering of the filum terminal were performed. The postoperative course was uneventful and the patient was discharged satisfactorily.
CONCLUSIONS: SCMs possibly represent a continuum of changes beginning at the gestational age of days 20-30. Terminology such as mixed or intermediate type is used to denote SCMs that show features of both type 1 and type II. We prefer using type 1.5 SCMs for all such cases, thereby avoiding confusion and maintaining uniformity in the nomenclature. However, further experimental studies

are required to substantiate our understanding of these complex embryologic anomalies on the basis of current hypotheses.

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PMID: 31557552 [Indexed for MEDLINE]

116: Meena S, Bir R, Sood S, Das BK, Kapil A. Emergence of Burkholderia cepacia in ICU Setting. Indian J Crit Care Med. 2019 Sep;23(9):423-426. doi: 10.5005/jp-journals-10071-23237. PubMed PMID: 31645828; PubMed Central PMCID: PMC6775713.

Background: B. cepacia is metabolically versatile organism which is not only resistant to many antibiotics but also disinfectants. This makes their survival easy even in restricted areas like intensive care unit (ICU) and management difficult.
Aims and objectives: To describe sudden emergence of Burkholderia at a tertiary care centre ICU setting in milieu of colistin usage.
Materials and methods: Cases were patients with culture proven B.cepacia. They were picked up as non-lactose fermenting, oxidase positive, motile, gram-negative bacilli which was resistant to colistin and aminoglycosides and sensitive to cotrimoxazole. These isolates were further confirmed by both VITEK-2 compact system (Biomerieux, France) and standard bacterial techniques.Colistin consumption data were retrospectively collected from medical store records of hospitals and individual ICU pharmacy records from January 2016 to June 2016, and were expressed as total dialy doses in a month per 1000 patient days (DDD/1000PD).
Results: An increase was observed in B. cepacia infection linked to increased consumption of colistin in ICU.
Conclusion: Based on these results an increase was observed in B.cepacia infection which correlated with increased consumption of colistin in ICU. We speculate that extensive use of colistin may lead to selection of intrinsically resistant B. cepacia and may facilitate their spread as nosocomial pathogens.
How to cite this article: Meena S, Bir R, Sood S, Das BK, Kapil A. Emergence of Burkholderia cepacia in ICU Setting. Indian J Crit Care Med 2019;23(9):423-426.

DOI: 10.5005/jp-journals-10071-23237
PMCID: PMC6775713
PMID: 31645828

117: Mishra N, Makhdoomi MA, Sharma S, Kumar S, Dobhal A, Kumar D, Chawla H, Singh R, Kanga U, Das BK, Lodha R, Kabra SK, Luthra K. Viral Characteristics Associated with Maintenance of Elite Neutralizing Activity in Chronically HIV-1 Clade C-Infected Monozygotic Pediatric Twins. J Virol. 2019 Aug 13;93(17). pii: e00654-19. doi: 10.1128/JVI.00654-19. Print 2019 Sep 1. PubMed PMID: 31217240; PubMed Central PMCID: PMC6694815.

Broad and potent neutralizing antibodies (bnAbs) with multiple epitope specificities evolve in HIV-1-infected children. Herein, we studied two antiretroviral-naive chronically HIV-1 clade C-infected monozygotic pediatric

twins, AIIMS_329 and AIIMS_330, with potent plasma bnAbs. Elite plasma neutralizing activity was observed since the initial sampling at 78 months of age in AIIMS_330 and persisted throughout, while in AIIMS_329 it was seen at 90 months of age, after which the potency decreased over time. We evaluated potential viral characteristics associated with the varied immune profiles by generating single genome-amplified pseudoviruses. The AIIMS_329 viruses generated from the 90-month time point were neutralization sensitive to bnAbs and contemporaneous plasma antibodies, while viruses from the 112-month and 117-month time points were resistant to most bnAbs and contemporaneous plasma. AIIMS_329 viruses developed resistance to plasma neutralizing antibodies (nAbs) plausibly by N160 glycan loss and V1 and V4 loop lengthening. The viruses generated from AIIMS_330 (at 90 and 117 months) showed varied susceptibility to bnAbs and autologous contemporaneous plasma antibodies, while the viruses of the 112-month time point, at which the plasma nAb specificities mapped to the V2 glycan, V3 glycan, and CD4 binding site (CD4bs), were resistant to contemporaneous plasma antibodies as well as to most bnAbs. Chimeric viruses were constructed from 90-month-time-point PG9-sensitive AIIMS_329 and AIIMS_330 viruses with swapped V1V2 regions of their respective evolved viruses (at 112 and 117 months), which led to higher resistance to neutralization by PG9 and autologous plasma antibodies. We observed the evolution of a viral pool in the AIIMS_330 donor comprising plasma antibody neutralization-sensitive or -resistant diverse autologous viruses that may have contributed to the development and maintenance of elite neutralizing activity.IMPORTANCE Herein, we report the longitudinal development of bnAbs in a pair of chronically HIV-1 clade C-infected monozygotic pediatric twins, AIIMS_329 and AIIMS_330, who acquired the infection by vertical transmission. The plasma from both donors, sharing a similar genetic makeup and infecting virus, showed the evolvement of bnAbs targeting common epitopes in the V2 and V3 regions of the envelope, suggesting that bnAb development in these twins may perhaps be determined by specific sequences in the shared virus that can guide the development of immunogens aimed at eliciting V2 and V3 bNAbs. Characterization of the neutralization-sensitive and -resistant viruses coevolving with bNAbs in the contemporaneous AIIMS_330 plasma provides information toward understanding the viral alterations that may have contributed to the development of resistance to bnAbs. Further longitudinal studies in more monozygotic and dizygotic twin pairs will help in delineating the role of host and viral factors that may contribute to the development of bnAbs.

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PMCID: PMC6694815 [Available on 2020-02-13]
PMID: 31217240

118: Mohan A, Shrestha P, Madan K, Hadda V, Pandey RM, Upadhyay A, Khilnani GC, Guleria R. A Prospective Outcome Assessment After Bronchoscopic Interventions for Malignant Central Airway Obstruction. J Bronchology Interv Pulmonol. 2019 Sep 26. doi: 10.1097/LBR.0000000000000624. [Epub ahead of print] PubMed PMID: 31567627.

BACKGROUND: A systematic assessment of comprehensive clinical outcomes after various therapeutic procedures for malignant central airway obstruction (CAO) is lacking.
METHODS: Patients with symptomatic malignant CAO undergoing various therapeutic

bronchoscopy procedures were assessed for symptomatic and functional improvement using the Speiser Score, spirometry, 6-minute walk distance (6MWD), and St. George Respiratory Questionnaire (SGRQ) up to 3 months after the procedures.
RESULTS: A total of 83 intervention procedures were performed in 65 patients, comprising 43 (66.2%) male individuals [overall mean age, 52.4; SD, 15.4 y]. The majority of these (92.3%) was done using rigid bronchoscope under general anesthesia. Airway stenting was the most common intervention performed (56.6%), followed by mechanical debulking (26.5%), cryodebulking (6%), electrosurgical removal (4.8%), balloon dilatation (3.6%), and laser ablation (2.4%).A total of 15 complications (18.1%) were noted. Of these, 8 (53.3%) were early complications and 7 (46.7%) were late complications. Early complications included airway bleeding, hypoxia, vocal cord injury, laryngeal injury, and pneumothorax. Late complications included significant granulation tissue formation in metallic stents and lung collapse because of mucus plug.The survival rates at 4, 8, and 12 weeks were 83%, 70.7%, and 66.1%, respectively. Significant improvement was observed in dyspnea, cough, Speiser Score, 6MWD, forced expiratory volume in 1 s, forced vital capacity, and SGRQ scores at 48 hours, 4 weeks, and at 12 weeks after the procedures and no procedure-related mortality occurred.
CONCLUSION: Various therapeutic bronchoscopic interventions, including combined modalities, provide rapid and sustained improvements in symptoms, respiratory status, exercise capacity, and quality of life in malignant CAO and have a good safety profile.

DOI: 10.1097/LBR.0000000000000624
PMID: 31567627

119: Mohan B, Verma A, Singh K, Singh K, Sharma S, Bansal R, Tandon R, Goyal A, Singh B, Chhabra ST, Aslam N, Wander GS, Roy A, Prabhakaran D. Prevalence of sustained hypertension and obesity among urban and rural adolescents: a school-based, cross-sectional study in North India. BMJ Open. 2019 Sep 8;9(9):e027134. doi: 10.1136/bmjopen-2018-027134. PubMed PMID: 31501100; PubMed Central PMCID: PMC6738741.

OBJECTIVE: Recent data on sustained hypertension and obesity among school-going children and adolescents in India are limited. This study evaluates the prevalence of sustained hypertension and obesity and their risk factors among urban and rural adolescents in northern India.
SETTING: A school-based, cross-sectional survey was conducted in the urban and rural areas of Ludhiana, Punjab, India using standardised measurement tools.
PARTICIPANTS: A total of 1959 participants aged 11-17 years (urban: 849; rural: 1110) were included in this school-based survey.
PRIMARY AND SECONDARY OUTCOME MEASURES: To measure sustained hypertension among school children, two distinct blood pressure (BP) measurements were recorded at an interval of 1 week. High BP was defined and classified into three groups as recommended by international guidelines: (1) normal BP: <90th percentile compared with age, sex and height percentile in each age group; (2) prehypertension: BP=90th-95th percentile; and (3) hypertension: BP >95th percentile. The Indian Academy of Pediatrics classification was used to define underweight, normal, overweight and obesity as per the body mass index (BMI) for specific age groups.
RESULTS: The prevalence of sustained hypertension among rural and urban areas was 5.7% and 8.4%, respectively. The prevalence of obesity in rural and urban school children was 2.7% and 11.0%, respectively. The adjusted multiple regression model found that urban area (relative risk ratio (RRR): 1.7, 95% CI 1.01 to 2.93),

hypertension (RRR: 7.4, 95%CI 4.21 to 13.16) and high socioeconomic status (RRR: 38.6, 95%CI 16.54 to 90.22) were significantly associated with an increased risk of obesity. However, self-reported regular physical activity had a protective effect on the risk of obesity among adolescents (RRR: 0.4, 95%CI 0.25 to 0.62). Adolescents who were overweight (RRR: 2.66, 95%CI 1.49 to 4.40) or obese (RRR: 7.21, 95%CI 4.09 to 12.70) and reported added salt intake in their diet (RRR: 4.90, 95%CI 2.83 to 8.48) were at higher risk of hypertension.
CONCLUSION: High prevalence of sustained hypertension and obesity was found among urban school children and adolescents in a northern state in India. Hypertension among adolescents was positively associated with overweight and obesity (high BMI). Prevention and early detection of childhood obesity and high BP should be strengthened to prevent the risk of cardiovascular diseases in adults.

DOI: 10.1136/bmjopen-2018-027134
PMCID: PMC6738741
PMID: 31501100

120: Monga N, Kharbanda OP. A Pristine Approach for the Prominent Premaxilla in Bilateral Cleft Lip and Palate (BCLP) Cases. Cleft Palate Craniofac J. 2019 Sep;56(8):1115-1119. doi: 10.1177/1055665619833865. Epub 2019 Mar 13. PubMed PMID: 30866673.

OBJECTIVE: The neonate premaxilla in bilateral cleft lip and palate is often protruding and displaced laterally. Surgeons prefer the premaxilla to be repositioned and centralized to allow a tension-free primary lip repair. This report describes the fabrication of a premaxillary bonnet appliance with silicone material and its successful use in 2 cases of bilateral cleft lip and palate (BCLP).
PATIENTS, PARTICIPANTS: Two male BCLP patients of ages 34 days and 10 days, respectively.
INTERVENTIONS: Nonsurgical repositioning of the premaxillary segment using silicone cup-bonnet appliance.
RESULTS: The duration of active treatment by silicone appliance was 36 days in case 1 and 75 days in case 2. The retention period was 2 months and 3 months, respectively. The appliance made of room temperature vulcanizing (RTV) silicone is flexible and softer in comparison to the rigid conventional acrylic appliance and is therefore almost atraumatic. A gentler appliance resulted in enhanced compliance and acceptance by the neonates. There was a noticeable change in the position of the discernible asymmetric premaxilla. Analysis of frontal facial photographs revealed an angular change in the position of the premaxilla (C) by 12° in case 1 and 6° in case 2 in reference to the midfacial plane.
CONCLUSION: This silicone appliance provides enhanced compliance and improved retention compared to acrylic appliance since it is a more gentle, flexible, and less traumatic alternative to a rigid acrylic appliance. Further, the RTV silicone appliance can be 3-dimensionally printed for better accuracy following intraoral scanning and thus eliminating the need for impression making in cleft newborns.

DOI: 10.1177/1055665619833865
PMID: 30866673

121: Mukhija R, Pujari A, Singh R, Nayak S, Singh V, Tandon R. Role of ultrasonography in childhood eye diseases in a tertiary care setting: indications and scope. Trop Doct. 2020 Jan;50(1):3-8. doi: 10.1177/0049475519875016. Epub 2019 Sep 17. PubMed PMID: 31530105.

We sought to evaluate the role and diagnostic potential of ocular B-scan ultrasonography in childhood eye disease in an observational cross-sectional study; 1091 patients with a total of 1445 eyes examined were studied. Cataract was the single most common indication for ultrasound followed by corneal pathology, ocular trauma, posterior segment pathology, primary congenital glaucoma, leukocoria, orbital pathology and other disease. Ultrasonography resulted in a change in diagnosis in 198 cases (18%). We conclude that B-scan ultrasonography plays an important adjunctive role in the management of childhood eye disease.

DOI: 10.1177/0049475519875016
PMID: 31530105

122: Muralidharan S, Ranjani H, Mohan Anjana R, Jena S, Tandon N, Gupta Y, Ambekar S, Koppikar V, Jagannathan N, Allender S, Mohan V. Engagement and Weight Loss: Results from the Mobile Health and Diabetes Trial. Diabetes Technol Ther. 2019 Sep;21(9):507-513. doi: 10.1089/dia.2019.0134. Epub 2019 Jun 11. PubMed PMID: 31184922.

Background: Prevalence of type 2 diabetes (T2D) is increasing worldwide. Identifying and targeting individuals at high risk, is essential for preventing T2D. Several studies point to mobile health initiatives delivered through personal smart devices being a promising approach to diabetes prevention, through weight loss. The aim of the mobile health and diabetes (mDiab) trial was twofold: to achieve 5% weight loss and to look at the association of weight loss with degree of engagement with the mDiab app. Methods: The mDiab randomized control trial was carried out among smartphone users who are at high risk for T2D mellitus in three cities-Chennai, Bengaluru, and New Delhi in India. The intervention was delivered through a mobile phone application along with weekly coach calls for 12 weeks. While individuals in the intervention group individuals received the app, which enabled tracking their weight, physical activity, and diet along with 12 weekly video lessons on T2D prevention and coach calls, the control group received usual care. Results: The intervention group experienced a significant 1 kg weight loss while the control group lost 0.3 kg ($P < 0.05$). More individuals in the intervention group (n = 139, 15%) met the 5% weight loss target than in the control group (n = 131, 9%). In the intervention group those who viewed the videos experienced greater weight loss (2.4 kg) than those who only attended coach calls (0.9 kg) ($P < 0.01$). Conclusions: An mHealth intervention helped to achieve moderate weight loss. Future studies should explore the sustainability of this weight loss.

DOI: 10.1089/dia.2019.0134
PMID: 31184922

123: Muvalia G, Jamshed N, Sinha TP, Bhoi S. Kite-string injuries: A case series. Int J Crit Illn Inj Sci. 2019 Jul-Sep;9(3):147-150. doi: 10.4103/IJCIIS.IJCIIS_44_19. Epub 2019 Sep 30. PubMed PMID: 31620355; PubMed

Central PMCID: PMC6792401.

Kites are very popular in India. Over the years, both kite-flying and kite-making skills have evolved. The conventional cotton threads that were used as kite string (manja) have been replaced by much cheaper and stronger Chinese manja, which is based on nonbiodegradable synthetic fibers. It is hard to break and has caused a sudden surge in dangerous kite string-related injuries. There are a lot of injuries usually sustained by kite-flyers, two-wheeler riders, and pedestrians. Very few case reports and case series have shown injuries related to flying a kite, which range from laceration of hand to fatal throat injuries. Secondary impact injuries attributed to kite string (manja) are rarely reported in the medical literature. We present a series of four cases with special emphasis on a patient, who sustained secondary impact injury with fatal outcome. Emergency physician should know that these trivial looking injuries can be associated with significant neck injuries. They can also cause significant secondary impact injuries.

DOI: 10.4103/IJCIIS.IJCIIS_44_19
PMCID: PMC6792401
PMID: 31620355

124: Naalla R, Murthy V, Chauhan S, Chinta K, Singhal M. Revisiting the Trapezius Flap as a Reconstructive Option for Cervico-Occipital and Thoracic Spine Regions. Indian J Plast Surg. 2019 Sep;52(3):322-323. doi: 10.1055/s-0039-3400677. Epub 2019 Dec 26. PubMed PMID: 31908371; PubMed Central PMCID: PMC6938435.

Introduction Reconstruction of complex soft tissue defects around the cervico-occipital and thoracic spine regions is a challenging task. We want to share our experience with trapezius flap for the reconstruction of these complex cases. Materials and Methods A retrospective analysis of patients who underwent reconstruction using trapezius flaps from January 2016 to June 2019 was performed. The indications, technique, complications, and outcomes were analyzed and presented. Results Six patients (three males and three females, >10 years of age) underwent seven reconstructions using trapezius flaps (one of the patients underwent reconstruction using a bilateral trapezius flap). Trapezius flap was used to resurface the parieto-occipital (n = 2), cervico-occipital (n = 2), cervicothoracic (n = 1), and thoracic (n = 1) regions. All flaps showed successful outcomes; one patient had wound dehiscence, and one patient had partial skin graft loss. Conclusion Trapezius flap is a reliable and good alternative to free flaps for the coverage of complex cervical-occipital and upper thoracic soft tissue defects.

DOI: 10.1055/s-0039-3400677
PMCID: PMC6938435
PMID: 31908371

125: Nagpal R, Sahay P, Maharana PK, Sharma N. Management of Descemet Membrane's Folds After Deep Anterior Lamellar Keratoplasty: Descemet Membrane-Tucking Technique. Cornea. 2019 Sep;38(9):e41. doi: 10.1097/ICO.0000000000002032. PubMed PMID: 31205160.

126: Nayak M, Nag HL, Nag TC, Yadav R, Singh V, Maredupaka S. Ultrastructural characterization of cells in the tibial stump of ruptured human anterior cruciate ligament, their changes and significance with duration of injury. Med Mol Morphol. 2019 Sep 27. doi: 10.1007/s00795-019-00233-6. [Epub ahead of print] PubMed PMID: 31559505.

Fibroblasts and myofibroblasts have been known to be present in both ruptured and intact human anterior cruciate ligament (ACL), and although their relevant histology and immunochemistry have been studied in the past, ultrastructural features of these cells are largely lacking. Therefore, we aim to characterise the ultrastructural details of these cells with the help of transmission electron microscopy (TEM) and to study the changes and their significance with duration of injury. Samples from 60 ruptured human ACL undergoing surgery were obtained and categorised according to duration of injury and observed under TEM with main focus on the following ultrastructural features: cellular morphology, presence of rough endoplasmic reticulum, Golgi apparatus, lamina, myofilaments, and presence of myofibroblasts. These features were further correlated with the duration of injury and association, if any, determined using appropriate statistical analysis. A total of 54 male and 6 female patients with mean duration of the injury of 23.01 ± 26.09 weeks (2–108 weeks) were included in the study and categorised into five groups based on duration of injury as follows: I (< 6 weeks), II (7–12 weeks), III (13–20 weeks), IV (21–50 weeks) and V (> 50 weeks). There was a significant association between the above-mentioned ultrastructural features and the duration of injury ($p < 0.05$) except for the presence of ovoid fibroblast cells ($p = 0.53$). Furthermore, number of myofibroblasts and cells with Golgi apparatus and rough endoplasmic reticulum was seen to peak at 13–20 weeks following injury. We describe ultrastructural features of fibroblast of different morphology along with myofibroblasts in the ligaments following injury, the changes in which might have a potential bearing on ligament healing.

DOI: 10.1007/s00795-019-00233-6
PMID: 31559505

127: Naz H, Tarique M, Ahamad S, Alajmi MF, Hussain A, Rehman MT, Luqman S, Hassan MI. Hesperidin-CAMKIV interaction and its impact on cell proliferation and apoptosis in the human hepatic carcinoma and neuroblastoma cells. J Cell Biochem. 2019 Sep;120(9):15119-15130. doi: 10.1002/jcb.28774. Epub 2019 Apr 25. PubMed PMID: 31021496.

Calcium/calmodulin-dependent protein kinase IV (CAMKIV) is a key regulatory molecule of cell signaling, and thereby controls its growth and proliferation, including expression of certain genes. The overexpression of CAMKIV is directly associated with the development of different types of cancers. Hesperidin is abundantly found in citrus fruits and exhibits wide range of pharmacological activities including anti-inflammatory, antibacterial and anticancerous effects. We have investigated binding mechanism of hesperidin with the CAMKIV using molecular docking methods followed by fluorescence quenching and isothermal titration calorimetric assays. An appreciable binding affinity of hesperidin was observed with CAMKIV during fluorescence quenching and isothermal titration calorimetric studies. Efficacy of hesperidin to inhibit the growth of human hepatic carcinoma (HepG2) and neuroblastoma (SH-SY5Y) cancer cell lines were

investigated. Hesperidin has significantly reduced the proliferation of HepG2 and SH-SY5Y cells and induces apoptosis by activating the caspase-3-dependent intrinsic pathway through the upregulation of proapoptotic Bax protein. Hesperidin treatment reduces the mitochondrial membrane potential of HepG2 and SH-SY5Y cells. All these observations clearly anticipated hesperidin a potent inhibitor of CAMKIV which may be further exploited a newer therapeutic approach for the management of different cancer types.

DOI: 10.1002/jcb.28774
PMID: 31021496

128: Nazir SU, Kumar R, Dil-Afroze, Rasool I, Bondhopadhyay B, Singh A, Tripathi R, Singh N, Khan A, Tanwar P, Agrawal U, Mehrotra R, Hussain S. Differential expression of Ets-1 in breast cancer among North Indian population. J Cell Biochem. 2019 Sep;120(9):14552-14561. doi: 10.1002/jcb.28716. Epub 2019 Apr 23. PubMed PMID: 31016780.

Breast cancer is a highly aggressive disease contributing to high mortality rate among females across the globe owing to wide geographical variations, change in lifestyle along with rapid tumor growth, drug resistance, and high metastasis rate. To understand the molecular and genetic basis of breast cancer progression; we studied the role of E26 transformation-specific-1 (Ets-1) transcription factor which is implicated to have a role in carcinogenesis like invasion, metastasis, angiogenesis, etc. Our findings revealed an overexpression of Ets-1 gene in 75 breast cancer tumors as compared with their normal adjacent tissues. The findings significantly established a co-relation between Ets-1 expression in breast cancer tissue with hormonal receptor profiles and ductal-lobular histological subtypes in Indian population. In addition, a differential expression pattern of Ets-1 was observed between high, moderate, and low grades of breast cancer patients. The present study demonstrates a crucial role of Ets-1 transcription factor which may serve as a potential biomarker for breast carcinogenesis.

DOI: 10.1002/jcb.28716
PMID: 31016780

129: Neyaz O, Sumila L, Nanda S, Wadhwa S. Effectiveness of Hatha Yoga Versus Conventional Therapeutic Exercises for Chronic Nonspecific Low-Back Pain. J Altern Complement Med. 2019 Sep;25(9):938-945. doi: 10.1089/acm.2019.0140. Epub 2019 Jul 26. PubMed PMID: 31347920.

Objective: To determine whether the effectiveness of Hatha yoga therapy is comparable to conventional therapeutic exercises (CTEs) for reducing back pain intensity and back-related dysfunction in patients with chronic nonspecific low-back pain (CNLBP). Design: The study was a prospective randomized comparative trial, divided into two phases: an initial 6-weekly supervised intervention period followed by a 6-week follow-up period. Settings: This study was conducted at Department of Physical Medicine and Rehabilitation and Centre for Integrative Medicine and Research of a tertiary care hospital. Subjects: Patients between 18 and 55 years of age with complaint of CNLBP persisting ≥12 weeks with pain rating

≥4 on a numerical rating scale (0-10). Intervention: A total of six standardized 35-min weekly Hatha yoga sessions (yoga group) and similarly 35-min weekly sessions of CTEs (CTE group), designed for people with CNLBP unaccustomed to structured yoga or CTE program. Participants were asked to practice on nonclass days at home. Outcome measures: The primary outcome measures were Defense and Veterans Pain Rating Scale (DVPRS) (0-10) and 24-point Roland Morris Disability Questionnaire (RDQ). Secondary outcomes were pain medication usage per week and a postintervention Perceived recovery (Likert seven-point scale) of back-related dysfunction. Outcomes were recorded at the baseline, 6-week follow-up, and 12-week follow-up. Results: Seventy subjects were randomized to either yoga (n=35) or CTE group (n=35). Data were analyzed using intention-to-treat, with last observation carried forward. Both yoga and the CTE group have shown significant improvement in back pain intensity and back-related dysfunction within both the groups at 6- and 12-week follow-ups compared to baseline. No statistically significant differences in the pain intensity (DVPRS; at 6 weeks: n=35, difference of medians 1.0, 95% confidence interval [-5.3 to 3.0], p=0.5; at 12 weeks: n=35, 0.0 [-4.2 to 5.0], 0.7) and back-related dysfunction (RDQ; at 6 weeks: n=35, 1.0 [-9.6 to 10.6], 0.4; at 12 weeks: n=35, 0.0 [-8.8 to 10.6], 0.3) were noted between two groups. Improvements in pill consumption and perceived recovery were also comparable between the groups. Conclusion: Yoga provided similar improvement compared with CTEs, in patients with CNLBP.

DOI: 10.1089/acm.2019.0140
PMID: 31347920 [Indexed for MEDLINE]

130: Nizami HL, Katare P, Prabhakar P, Kumar Y, Arava SK, Chakraborty P, Maulik SK, Banerjee SK. Vitamin D Deficiency in Rats Causes Cardiac Dysfunction by Inducing Myocardial Insulin Resistance. Mol Nutr Food Res. 2019 Sep;63(17):e1900109. doi: 10.1002/mnfr.201900109. Epub 2019 Jun 5. PubMed PMID: 31095894.

SCOPE: Cause-effect relationship between vitamin D deficiency and cardiometabolic abnormalities remains undefined. The aim is to investigate the role of vitamin D deficiency in cardiac failure, through possible involvement in myocardial insulin signaling.
METHODS AND RESULTS: Male SD rats (n = 6) are fed a normal diet (Con), vitamin D-deficient diet [Con(-)], or high-fat, high fructose diet (HFHFrD) for 20 weeks. Cardiac hypertrophy and fetal gene program are confirmed in Con(-) group. Cardiac dysfunction is assessed by echocardiography. Elevated renin, TGF-β and collagen-1α mRNAs, p-ERK1/2, and perivascular fibrosis indicate cardiac remodeling in Con(-) group. Increased serum insulin, triglycerides, and blood pressure, and decreased glucose tolerance and HDL cholesterol are observed in Con(-) rats. Decreased p-Akt/Akt, GLUT4, SOD2, and catalase, and increased NF-κB, TNF-α, and IL-6 are observed in Con(-) hearts. In H9c2 cells, calcitriol attenuates palmitate-induced insulin resistance. VDR-silenced H9c2 cells show reduced Akt phosphorylation, GLUT4 translocation, and 2-NBDG uptake. Findings in Con(-) and HFHFrD groups are comparable.
CONCLUSION: Vitamin D deficiency in rats mimic high-fat-, high-fructose-induced metabolic syndrome and cardiac dysfunction. This study demonstrates that vitamin D deficiency is an independent risk factor for heart failure, at least in part, through induction of myocardial insulin resistance.

DOI: 10.1002/mnfr.201900109
PMID: 31095894

131: Ojha V, Chandrashekhara SH, Ganga KP, Saxena A, Gulati G. Congenital Left Ventricular Diverticulum in Pentalogy of Cantrell: Puzzle Solved With Dual-Source CT. Ann Thorac Surg. 2019 Sep;108(3):e205. doi: 10.1016/j.athoracsur.2019.02.050. Epub 2019 Mar 25. PubMed PMID: 30922822.

132: Ojha V, Vadher A, Chandrashekhara SH, Kumar S. Constrictive Pericarditis With a Right Ventricular Apical Outpouching Masquerading as a Diverticulum. Ann Thorac Surg. 2019 Sep;108(3):e203. doi: 10.1016/j.athoracsur.2019.02.018. Epub 2019 Mar 15. PubMed PMID: 30885855.

133: Pal Singh Balhara Y, Doric A, Stevanovic D, Knez R, Singh S, Roy Chowdhury MR, Kafali HY, Sharma P, Vally Z, Vi Vu T, Arya S, Mahendru A, Ransing R, Erzin G, Le Thi Cam Hong Le H. Correlates of Problematic Internet Use among college and university students in eight countries: An international cross-sectional study. Asian J Psychiatr. 2019 Oct;45:113-120. doi: 10.1016/j.ajp.2019.09.004. Epub 2019 Sep 5. PubMed PMID: 31563832.

BACKGROUND AND AIMS: Internet use has increased worldwide exponentially over the past two decades, with no up-to-date cross-country comparison of Problematic Internet Use (PIU) and its correlates available. The present study aimed to explore the pattern and correlates of PIU across different countries in the European and the Asian continent. Further, the stability of factors associated with PIU across different countries were assessed.
MATERIALS AND METHODS: An international, cross-sectional study with a total of 2749 participants recruited from universities/colleges of eight countries: Bangladesh, Croatia, India, Nepal, Turkey, Serbia, Vietnam, and United Arab Emirates (UAE). Participants completed the Generalized Problematic Internet Use Scale -2 (GPIUS2) assessing PIU, and the Patient Health Questionnaire Anxiety-Depression Scale (PHQ-ADS) assessing the depressive and anxiety symptoms.
RESULTS: A total of 2643 participants (mean age 21.3±2.6; 63% females) were included in the final analysis. The overall prevalence of PIU for the entire sample was 8.4% (range 1.6% to 12.6%). The mean GPIUS2 standardized scores were significantly higher among participants from the five Asian countries when compared to the three European countries. Depressive and anxiety symptoms were the most stable and strongest factors associated with PIU across different countries and cultures.
DISCUSSION AND CONCLUSIONS: The PIU is an important emerging mental health condition among college/university going young adults, with psychological distress being the strongest and most stable correlate of PIU across different countries and cultures in this study. The present study highlighted the importance of screening university and college students for PIU.

DOI: 10.1016/j.ajp.2019.09.004
PMID: 31563832

134: Pandey NN, Sinha M, Sharma A, Bhambri K, Kumar S. Aberrant Origin of Left Vertebral Artery From Left Common Carotid Artery in Association With Tetralogy of Fallot and Anomalous Aortic Origin of Left Pulmonary Artery. Heart Lung Circ. 2020 Jan;29(1):e22-e24. doi: 10.1016/j.hlc.2019.07.021. Epub 2019 Sep 19. PubMed PMID: 31594722.

135: Parveen, Kumar N, Sinha AP, Garg R, Deo SVS, Kumar S. Fatigue and Functional Ability in Patients Undergoing Upfront Surgical Treatment for Solid Malignancies. Indian J Surg Oncol. 2019 Sep;10(3):441-445. doi: 10.1007/s13193-019-00918-5. Epub 2019 Apr 13. PubMed PMID: 31496587; PubMed Central PMCID: PMC6707984.

Fatigue is an underassessed and underreported aspect of cancer patients undergoing treatment. In patients being treated with surgery, its extent and manifestations may be varied but it affects their functional quality of life. This study was designed to evaluate the level of fatigue in pre- and post-surgery period and its relation with the functional disability in patients undergoing upfront surgery for solid malignancies. A prospective observational study was conducted between 2016 and 2017. A total of 71 patients with malignant solid tumors (up to stage III) undergoing upfront surgery were included. The fatigue and functional disability were assessed in pre- and post-surgery period using Multidimensional Fatigue Inventory-20 (MFI-20) and Functional Assessment of Chronic Illness Therapy (FACIT-F) questionnaires respectively. The mean age was 42.4 years. The post-operative fatigue levels were significantly higher compared with the pre-operative levels ($p=0.001$). The maximum levels of fatigue and loss of functional ability were seen at the time of discharge that recovered up to some extent after 30 days of surgery. Operative duration >8 h, hospital stay >9 days, and blood loss of >200 ml were associated with increased fatigue level. Mental fatigue and limitation of physical activity were the most significant domains in pre- and post-surgery period respectively. This study concludes that cancer-related fatigue is present in both pre- and post-surgery period and it correlates with functional disability. Assessment of different dimensions of fatigue is important and patients need to be made aware about them for planning any specific intervention including life style modification to help them cope up with these practical issues.

DOI: 10.1007/s13193-019-00918-5
PMCID: PMC6707984 [Available on 2020-09-01]
PMID: 31496587

136: Parveez MQ, Ponnappan K, Tandon M, Sharma A, Jain P, Singh A, Pandey CK, Vyas V. Preoperative Glycated Haemoglobin Level and Postoperative Morbidity and Mortality in Patients Scheduled for Liver Transplant. Indian J Endocrinol Metab. 2019 Sep-Oct;23(5):570-574. doi: 10.4103/ijem.IJEM_208_19. PubMed PMID: 31803599; PubMed Central PMCID: PMC6873256.

Background: There is high prevalence of diabetes mellitus in patients of end stage liver disease and it has been implicated for complications in post-transplant patients. Glycated hemoglobin is now targeted as a modifiable preoperative risk factors for postoperative complications. Data describing the course and severity of postoperative liver transplant complication and their relation with pre-operative glycated hemoglobin level is sparse. In this study,

we looked for co-relation between the preoperative HbA1c level and post-operative mortality and morbidity in patients scheduled for liver transplant.
Materials and Methods: Retrospective data in 400 adult patients operated for liver transplant were retrieved. After exclusion, data were analyzed for 224 patients. Patients were divided into two groups on the basis of glycated hemoglobin levels (Group 1 (HbA1C ≥6.5) and Group 2 (HbA1C <6.5)).
Results: Glycated hemoglobin levels were not associated with postoperative death during stay in intensive care unit, incidence of postoperative cardiovascular, renal, and central nervous complications. No difference was seen between 2 groups for need for renal replacement therapy, incidence of infections, rejection, need for re-exploration surgery and duration of intensive care unit and hospital stay. Glycated hemoglobin cannot predict 30 day survival (Area under curve {AUC} = 0.629, P value 0.05).
Conclusion: Preoperative glycated hemoglobin level is not associated with postoperative morbidity and mortality in patients scheduled for liver transplant.
Trial Registration Number: CTRI/2018/04/012966.

DOI: 10.4103/ijem.IJEM_208_19
PMCID: PMC6873256
PMID: 31803599

137: Patel S, Mathew R, Bhoi S. Caution in diagnosing angioedema as anaphylaxis. BMJ Case Rep. 2019 Sep 4;12(9). pii: e230329. doi: 10.1136/bcr-2019-230329. PubMed PMID: 31488445.

Angioedema is one of the commonest life-threatening conditions with good outcome timely definitive treatment. However, failure to recognise the common presentation of an uncommon bradykinin-mediated angioedema in time may lead to fatal outcome in the emergency department (ED). We report a case of a 79-year-old male patient who presented to ED with features of ACE inhibitor-induced angioedema which was identified and resuscitated by the emergency physician with use of fresh frozen plasma (FFP) leading to prompt recovery and good outcome.

DOI: 10.1136/bcr-2019-230329
PMID: 31488445

138: Patil S, Relan J, Hote M, Kothari SS. Severe thrombocytopenia in tetralogy of Fallot patients: A contraindication for corrective surgery? Ann Pediatr Cardiol. 2019 Sep-Dec;12(3):305-307. doi: 10.4103/apc.APC_71_18. PubMed PMID: 31516289; PubMed Central PMCID: PMC6716327.

A 3-year-old boy with tetralogy of Fallot and recurrent cyanotic spells was found to have severe thrombocytopenia with platelet counts in the range of 11-30,000/mm3. There was a hesitation to operate in view of the high bleeding risk due to profound thrombocytopenia. However, the total correction was done after excluding other causes of thrombocytopenia. His platelet count dramatically improved after the operation.

DOI: 10.4103/apc.APC_71_18
PMCID: PMC6716327
PMID: 31516289

139: Patil S, Singh N. Silk fibroin-alginate based beads for human mesenchymal stem cell differentiation in 3D. Biomater Sci. 2019 Nov 1;7(11):4687-4697. doi: 10.1039/c9bm01000a. Epub 2019 Sep 5. PubMed PMID: 31486468.

Lately silk fibroin has gained a lot of popularity as a tissue engineering scaffold due to its exceptional mechanical properties, negligible inflammatory reactions, remarkable biocompatibility, and tunable biodegradability. Nonetheless, 3 dimensional (3D) silk fibroin based scaffolds, which allow simultaneous formation of scaffolds and cell encapsulation with minimal damage to the cells, are unavailable, as most of the methods involve the use of some cell destructive techniques. Thus, cells have to be loaded after the scaffold formation and the study has to rely upon the ability of the cells to penetrate the scaffold to obtain a 3D microenvironment. Hence, these platforms do not allow for a true 3D system replicating the in vivo environment. Here silk fibroin-alginate based beads have been developed, and retain silk fibroin for a longer period of time and allow for simultaneous cell encapsulation as the crosslinking method is cell-compatible. It is demonstrated for the first time that these silk fibroin-alginate beads can be used to encapsulate the cells at varying cell densities depending on the desired application. These beads were further used to study the effect of functional groups on human mesenchymal stem cell (hMSC) differentiation in 3D, by utilizing carboxylic groups naturally present in alginate as well as introducing phosphate groups. The results showed that these beads were able to support the growth and proliferation of hMSCs and induced differentiation solely due to functional groups within 14 days. These beads were better in directing hMSC differentiation into osteogenic and chondrogenic lineages compared to 2D surfaces and differentiation media.

DOI: 10.1039/c9bm01000a
PMID: 31486468

140: Patil V, Gupta R, Singh S, Goyal A, Deb KS. Central Pontine/Extrapontine Myelinolysis Presenting with Manic and Catatonic Symptoms. Indian J Psychol Med. 2019 Sep 5;41(5):491-493. doi: 10.4103/IJPSYM.IJPSYM_58_19. eCollection 2019 Sep-Oct. PubMed PMID: 31548777; PubMed Central PMCID: PMC6753711.

141: Paul SB, Sahu P, Sreenivas V, Nadda N, Gamanagatti SR, Nayak B, Shalimar S, Acharya SK. Prognostic role of serial alpha-fetoprotein levels in hepatocellular carcinoma treated with locoregional therapy. Scand J Gastroenterol. 2019 Sep;54(9):1132-1137. doi: 10.1080/00365521.2019.1660403. Epub 2019 Sep 4. PubMed PMID: 31483691.

Background and aim: To evaluate early serial AFP changes in responders and non-responders to locoregional therapy and identify differences between significant AFP decliners and non-decliners post-treatment. Methods: Case records of hepatocellular carcinoma (HCC) patients having AFP ≥20 ng/ml and treated with locoregional therapy were examined retrospectively. Patients with complete details were included. Trends of serial AFP change (from baseline to post-treatment one month) in patients showing early tumor response (complete

response (CR), partial response (PR), progressive disease (PD)) as assessed on multiphasic MRI/CT liver performed at one month following treatment. Receiver operating curves were drawn to estimate the best AFP reduction cut off for differentiating between responders (CR plus PR) from non-responders (PD). AFP decliners (those with AFP level reduction greater than 20% post-treatment) were identified and comparisons of their clinical parameters, tumor response and survival rate were made with AFP non-decliners. Results: HCC patients (n=126) had mean age of 52.8 years, male:female ratio (4:1), Child's A 94, BCLC stage A/B/C HCC 49/65/12, respectively. On 4-6 weeks' MRI/CT, 46 patients developed CR, 55 PR and 25 PD. Reduction in median AFP level (83% in CR, 19% in PR) occurred in responders while 16% increase occurred in PD patients (non-responders). A 30% AFP reduction could differentiate responders from non-responders with 70% sensitivity and 68% specificity, AUROC 74% (CI 0.64-0.85). AFP decliners showed better survival and tumor response than non-decliners. Conclusions: Serial AFP change can predict tumor response to locoregional therapy in AFP producing HCC patients. AFP decliners have better survival and tumor response than AFP non-decliners.

DOI: 10.1080/00365521.2019.1660403
PMID: 31483691

142: Phulware RH, Gahlot GPS, Malik R, Gupta SD, Das P. Microvillous Inclusion Disease as a Cause of Protracted Diarrhea. Indian J Pediatr. 2019 Sep;86(9):854-856. doi: 10.1007/s12098-019-02963-y. Epub 2019 May 2. PubMed PMID: 31049800.

Microvillous inclusion disease (MVID), also known as congenital microvillus atrophy, was first described by Davidson et al. in 1978. Till date, only a handful of cases with MVID have been described in English literature. It is an autosomal recessive disorder with no sex predisposition and more commonly noted in countries with prevalent consanguineous marriages. These patients usually present with intractable secretory diarrhea in early days of life. The pathognomonic findings of MVID are villous atrophy along with the formation of intracellular microvillous inclusions on electron microscopy. Till date, no curative therapy exists, and prognosis mainly depends upon parenteral nutrition. Small bowel transplantation is one of the treatment options. Clinician and pathologist should consider the possibility of MVID in the differential diagnosis of chronic intractable diarrhea in an infant. Herein, authors are describing a case of intractable diarrhea with MVID phenotype diagnosed in a 3-mo-old male child who presented with intractable diarrhea in an outside hospital, and the diagnostic workup was performed by the authors on endoscopic biopsy sample.

DOI: 10.1007/s12098-019-02963-y
PMID: 31049800

143: Porubsky S, Rudolph B, RÃ¼ckert JC, KÃ¼ffer S, StrÃ¶bel P, Roden AC, Jain D, Tousseyn T, Van Veer H, Huang J, Antonicelli A, Kuo TT, Rosai J, Marx A; International Thymic Malignancy Interest Group (ITMIG). EWSR1 translocation in primary hyalinising clear cell carcinoma of the thymus. Histopathology. 2019 Sep;75(3):431-436. doi: 10.1111/his.13890. Epub 2019 Jul 19. PubMed PMID: 31050844.

AIMS: In thymic carcinomas, focal clear cell change is a frequent finding. In addition to a prominent, diffuse clear cell morphology, some of these carcinomas

show an exuberant hyalinised extracellular matrix, and therefore probably represent a separate entity. However, a characteristic genomic alteration remains elusive. We hypothesised that, analogous to hyalinising clear cell carcinomas of the salivary gland, hyalinising clear cell carcinomas of the thymus might also harbour EWSR1 translocations.
METHODS AND RESULTS: We identified nine archived cases of thymic carcinoma with focal clear cell features and two cases that showed remarkable hyalinised stroma and prominent, diffuse clear cell morphology. These two cases expressed p40 and were negative for Pax8, CD5, and CD117. Programmed death-ligand 1 was highly positive in one case (70%), and negative in the other one. EWSR1 translocation was identified in both cases of hyalinising clear cell carcinoma, and was absent in all nine carcinomas that showed clear cell features without substantial hyalinisation. In one of the EWSR1-translocated cases, a fusion between exon 13 and exon 6 of EWSR1 and ATF1, respectively was identified by next-generation sequencing.
CONCLUSIONS: These findings suggest that the EWSR1 translocation and possibly the EWSR1-ATF1 fusion might be unifying genomic alterations for thymic clear cell carcinomas with prominent hyalinised stroma, for which we propose the term 'hyalinising clear cell carcinoma of the thymus'. Because the immunophenotype is unspecific, testing for the EWSR1 translocation might be helpful in discriminating this entity from other thymic neoplasms or metastases, in particular those with clear cell change.

DOI: 10.1111/his.13890
PMID: 31050844

144: Pramanik R, Sharma A, Sharma A, Gogia A, Sahoo RK, Malik PS, Padma MV, Cyriac SL, Kumar L. POEMS Syndrome: Indian Experience From a Tertiary-Care Institute. Clin Lymphoma Myeloma Leuk. 2019 Sep;19(9):e536-e544. doi: 10.1016/j.clml.2019.05.018. Epub 2019 May 29. PubMed PMID: 31262669.

INTRODUCTION: POEMS (polyneuropathy, organomegaly, endocrinopathy, monoclonal gammopathy, skin changes) syndrome is a rare multisystem paraneoplastic syndrome characterized by peripheral neuropathy and monoclonal plasmacytosis. Retrospective institutional experiences from the Mayo Clinic as well as Chinese, European, and Japanese series have provided important insights into the characteristics and treatment of this disease, but Indian data are extremely limited. We retrospectively analyzed 49 cases from our institute including 10 patients who underwent autologous stem-cell transplantation (ASCT).
PATIENTS AND METHODS: We analyzed clinical and laboratory characteristics, treatment details and outcome of all patients diagnosed with POEMS syndrome between 1993 and 2017.
RESULTS: Complete medical records were available for 49 patients with a median age of 44 years. Male/female ratio was 38:11. Twenty patients (40.8%) had Eastern Cooperative Oncology Group performance status of 4. Before 2012, melphalan/prednisolone was the most common regimen provided, while bortezomib/dexamethasone and lenalidomide/dexamethasone were used later. Hematologic response was available for 40 patients, 15 (37.5%) of whom experienced complete response, 13 (32.5%) partial response, and 11 (27.5%) stable disease. The median modified Rankin score at baseline was 4 (range, 1-5), which improved to 3 (range, 1-5). Ten patients underwent consolidation ASCT after a

median of 4 cycles of induction. Median melphalan dose was 140 mg/m2. Engraftment syndrome was observed in 4. After ASCT, all 10 patients experienced hematologic complete response and clinical improvement.
CONCLUSION: This retrospective analysis provides important information on the clinical characteristics of POEMS syndrome in Indian patients, which will help the clinician's decision-making process.

DOI: 10.1016/j.clml.2019.05.018
PMID: 31262669

145: Pramanik R, Bakhshi S. Metronomic therapy in pediatric oncology: A snapshot. Pediatr Blood Cancer. 2019 Sep;66(9):e27811. doi: 10.1002/pbc.27811. Epub 2019 Jun 17. Review. PubMed PMID: 31207063.

Metronomic chemotherapy transitioned from the bench to bedside in the early 2000s and since then has carved a niche for itself in pediatric oncology. It has been used solely or in combination with other modalities such as radiotherapy, maximum tolerated dose chemotherapy, and targeted agents in adjuvant, palliative, as well as maintenance settings. No wonder, the resulting medical literature is extremely heterogeneous. In this review, the authors review and synthesize the published literature in pediatric metronomics giving a glimpse of its history, varied applications, and evolution of this genre of chemotherapy in pediatric cancers. Limitations, future prospects, and grey areas are also highlighted.

DOI: 10.1002/pbc.27811
PMID: 31207063 [Indexed for MEDLINE]

146: Prasad A, Kharbanda OP. Interdisciplinary Management of an Adult Bilateral Cleft Lip and Palate Patient with Excessive Incisor Display - A Case Report. Turk J Orthod. 2019 Sep;32(3):176-181. doi: 10.5152/TurkJOrthod.2019.18054. Epub 2019 Sep 1. PubMed PMID: 31565694; PubMed Central PMCID: PMC6756560.

This case report shows a successful orthodontic treatment of an operated adult bilateral cleft lip and palate subject with short upper lip and excessive incisor display. The patient underwent cleft lip repair at an early age of 2.5 years, followed by palatoplasty at the age of 21 years. She presented with malaligned teeth, inability to close the lips, excessive upper incisor display, and difficulty in speech. She was treated with upper and lower arch alignment and intrusion of the upper incisors, followed by prosthetic replacement of the missing right lateral incisor and left lateral incisor and canine. Normal dental occlusion was achieved using orthodontic procedures, followed by prosthodontic rehabilitation that resulted in significant improvement in facial aesthetics and psychosocial benefit to the individual.

DOI: 10.5152/TurkJOrthod.2019.18054
PMCID: PMC6756560
PMID: 31565694

147: Priya S, Nagpal P, Sharma A, Pandey NN, Jagia P. Imaging Spectrum of Double-Outlet Right Ventricle on Multislice Computed Tomography. J Thorac Imaging. 2019 Sep;34(5):W89-W99. doi: 10.1097/RTI.0000000000000396. PubMed PMID: 30801451.

Double-outlet right ventricle is a complex congenital heart disease that encompasses various common and rare subtypes. Surgical management of these patients needs to be individualized owing to extremely variable morphology and hemodynamics. Imaging plays a crucial role in determination and characterization of outflow tract morphology. The assessment of ventricular septal defect routability with identification of associated anomalies has therapeutic implications in these patients. Multislice computed tomography with advanced 3-dimensional postprocessing techniques and dose-reduction strategies is invaluable in defining the anatomy and morphology of double-outlet right ventricle with simultaneous assessment of associated anomalies.

DOI: 10.1097/RTI.0000000000000396
PMID: 30801451

148: Pujari A, Selvan H, Asif MI, Gupta B, Dada T. Smartphone-aided Quantification of Iridocorneal Angle. J Glaucoma. 2019 Sep;28(9):e153-e155. doi: 10.1097/IJG.0000000000001316. PubMed PMID: 31233459.

As the upgrading of smartphone technology revolutionizes the field of ophthalmic imaging, we put forward one more of its novel applications. This article presents the possibility of iridocorneal angle (ICA) estimation through smartphone-captured images. Such measured inferior ICA (at 6'o clock position) was comparable to the anterior segment optical coherence tomography measured trabecular iris angle at 500 μ at 270 degrees (P=0.06). They both had an excellent positive correlation (ρ=0.81, P<0.001). Therefore, smartphone image-aided angle estimation may be a simple, effective, and economical method for quantification of ICAs, paving a more evident way for identification of angle-closure disease.

DOI: 10.1097/IJG.0000000000001316
PMID: 31233459

149: Raina R, Grewal MK, Radhakrishnan Y, Tatineni V, DeCoy M, Burke LL, Bagga A. Optimal management of atypical hemolytic uremic disease: challenges and solutions. Int J Nephrol Renovasc Dis. 2019 Sep 4;12:183-204. doi: 10.2147/IJNRD.S215370. eCollection 2019. PubMed PMID: 31564951; PubMed Central PMCID: PMC6732511.

Atypical hemolytic uremic syndrome (aHUS) is a chronic life threatening condition that arises from genetic abnormalities resulting in uncontrolled complement amplifying activity. The introduction of eculizumab, the humanized monoclonal antibody, has brought about a paradigm shift in the management of aHUS. However, there are many knowledge gaps, diagnostic issues, access and cost issues, and patient or physician challenges associated with the use of this agent. Limited data on the natural history of aHUS along with the underlying genetic mutations make it difficult to predict the relapses and thereby raising concerns about the appropriate duration and monitoring of treatment. In this review, we discuss the

safety and efficacy of eculizumab in patients with aHUS and its associated challenges.

DOI: 10.2147/IJNRD.S215370
PMCID: PMC6732511
PMID: 31564951

150: Rani K, Mukherjee R, Singh E, Kumar S, Sharma V, Vishwakarma P, Bharti PS, Nikolajeff F, Dinda AK, Goyal V, Kumar S. Neuronal exosomes in saliva of Parkinson's disease patients: A pilot study. Parkinsonism Relat Disord. 2019 Oct;67:21-23. doi: 10.1016/j.parkreldis.2019.09.008. Epub 2019 Sep 9. PubMed PMID: 31621600.

151: Rath RS, Solanki HK. Review of Lot Quality Assurance Sampling, Methodology and its Application in Public Health. Nepal J Epidemiol. 2019 Sep 30;9(3):781-787. doi: 10.3126/nje.v9i3.24507. eCollection 2019 Sep. PubMed PMID: 31687252; PubMed Central PMCID: PMC6824847.

Rapid collection of data is of utmost importance in monitoring and evaluation of activities of public health importance. Among others techniques, 30 by 7 cluster sampling and Lot quality assurance sampling(LQAS) methods have been described in literature for this purpose. However, LQAS is often sparingly used in most settings, undermining its importance as a effective epidemiological tool in public health practice. To some extent LQAS is inadequately understood and even less emphasized method, especially in the postgraduate teaching and training. In this paper we aim to explain the use, method and application of LQAS in public health settings as well as discuss common pitfalls to avoid while planning and drawing inferences based on data collected through LQAS.

DOI: 10.3126/nje.v9i3.24507
PMCID: PMC6824847
PMID: 31687252

152: Ravina M, Saboury B, Chauhan MS, Jacob MJ, Pandit AG, Sanchety N, Werner TJ, Alavi A. Utility of (18) F-FDG PET/CT in pre-surgical risk stratification of patients with breast cancer. Hell J Nucl Med. 2019 Sep-Dec;22(3):165-171. doi: 10.1967/s002449911051. Epub 2019 Oct 7. PubMed PMID: 31587025.

OBJECTIVE: To determine the correlation between fluorine-18-fluorodeoxyglucose (18F-FDG) uptake values and clinicopathological prognostic markers using preoperative 18F-FDG positron emission tomography/computed tomography (PET/CT) in primary breast cancer (BC).
SUBJECTS AND METHODS: One hundred and twelve patients with primary BC were studied prospectively. Pretreatment 18F-FDG PET/CT was performed. Maximum standardized uptake values (SUVmax) were compared with various clinicopathological variables.
RESULTS: In a univariate analysis, SUVmax correlated well with the following prognostic variables: T stage, absence of progesterone receptor (PR), absence of

estrogen receptor (ER), triple negative lesions (ER/PR and Her 2 negative) and high histologic grade. Metastatic lesions and ductal lesions had higher SUVmax than lobular carcinoma. No significant correlation was found between SUVmax,and human epidermal growth factor receptor 2 (Her-2) statusor perineural and lymphovascular invasion. Multivariate analyses showed that breast density, tumor size and PR negativity were significantly correlated with SUVmax (P=0.046 and 0.009, respectively).
CONCLUSION: The pre-treatment tumor SUVmax could be utilized as an independent imaging biomarker of the tumor aggressiveness and poor prognosis. Risk stratification based on this index could play a pivotal role in alteration of treatment planning, such as neoadjuvant chemotherapy (precision oncology).

DOI: 10.1967/s002449911051
PMID: 31587025

153: Ravindran RD, Sundaresan P, Krishnan T, Vashist P, Maraini G, Saravanan V, Chakravarthy U, Smeeth L, Nitsch D, Young IS, Fletcher AE. Genetic variants in a sodium-dependent vitamin C transporter gene and age-related cataract. Br J Ophthalmol. 2019 Sep;103(9):1223-1227. doi: 10.1136/bjophthalmol-2018-312257. Epub 2018 Nov 15. PubMed PMID: 30442817; PubMed Central PMCID: PMC6709767.

BACKGROUND: Cataract is a major health burden in many countries and a significant problem in India. While observational studies show lower cataract risk with increasing dietary or plasma vitamin C, randomised controlled trials of supplements have been negative. Genetic variants in vitamin C transporter proteins (SLC23A1), especially rs33972313, may provide evidence on a causal association of vitamin C with cataract.
METHODS: We used data from a randomly selected population-based study in people aged 60 years and above in north and south India. Of 7518 sampled, 5428 (72%) were interviewed for socioeconomic and lifestyle factors, attended hospital for lens imaging and blood collection and were subsequently genotyped for rs33972313 and rs6596473. Mixed or pure types of cataract were graded by the Lens Opacity Classification System III as nuclear (2404), cortical (494) or posterior subcapsular cataract (PSC) (1026); 1462 had no significant cataract and no history of cataract surgery and 775 had bilateral aphakia/pseudophakia.
RESULTS: rs33972313 was associated with cortical (OR 2.16; 95% CI 1.34 to 3.49, p=0.002) and PSC (OR 1.68; 95% CI 1.06 to 2.65, p=0.03) but not with nuclear cataract. In analyses of pure cataracts, associations were found only between rs33972313 and pure cortical cataracts (OR 2.29; 95% CI 1.12 to 4.65, p=0.03) and with a standardised cortical opacity score. There was no association with rs6596473 and any cataract outcomes.
CONCLUSIONS: Using an established genetic variant as a proxy for lifetime ascorbate concentrations, our results support a causal association of vitamin C with cataract.

DOI: 10.1136/bjophthalmol-2018-312257
PMCID: PMC6709767
PMID: 30442817

154: Ray A, Jain SR, Narwal A, Sinha S. Endoscopic ultrasound fine-needle

aspiration with an echobronchoscope (EUS-B-FNA) from a difficult-to-access paraspinal lesion. Lung India. 2019 Sep-Oct;36(5):457-458. doi: 10.4103/lungindia.lungindia_226_19. PubMed PMID: 31464223; PubMed Central PMCID: PMC6710969.

155: Roy N, Prasad C, Kumar A, Mondol K, Jain K, Yadav R, Jha JK, Nadda N, Acharya SK, Shalimar, Nayak B. IFNL4 haplotype, linkage disequilibrium and their influence on virological response to hepatitis C virus infection in Indian population. Virusdisease. 2019 Sep;30(3):344-353. doi: 10.1007/s13337-019-00535-4. Epub 2019 Jul 24. PubMed PMID: 31803800; PubMed Central PMCID: PMC6863998.

Type III interferon (IFNs) encoded by IFN lambda (IFNL) genes induce antiviral activity. The IFNL clusters include IFNL1/IL29, IFNL2/IL28A, IFNL3/IL28B and IFNL4 genes. The single nucleotide polymorphisms (SNPs, rs12979860 and rs8099917) associated with virological responses against hepatitis C virus (HCV) infections are recently mapped to IFNL4 gene. The IFNL gene polymorphisms also plays role in immune clearance, inflammation and risk of developing hepatocellular carcinoma. There is significant genetic heterogeneity of IFNL4 polymorphisms among ethnic populations that need to be regionally studied for viral infection, treatment response and relapse. The IFNL4 risk allele, genotype and haplotype frequencies across north Indian cohort were determined among chronic hepatitis C (CHC) cases (n = 141) and healthy controls (n = 111) by allele specific real-time PCR. Odds ratio was calculated for HCV exposure and treatment response using dominant and minor allele/genotype as reference. Non-random associations of these two SNP loci were evaluated by linkage disequilibrium plot. The minor allele (T) frequency of rs12979860C/T is 0.241 and 0.229; and minor allele (G) frequency for SNP rs8099917T/G is 0.174 and 0.171 among CHC cases and healthy control respectively. Coefficient of linkage disequilibrium (D') of these two SNPs is very high (D' = 0.98, r2 > 0.6) in CHC group than in healthy control (D' = 0.76, r2 = 0.39) which indicate that both SNPs are strongly linked in CHC population than healthy control. Favorable association of IFNL4 haplotype (C-T), genotype (CC for rs12979860 and TT for rs8099917) with anti HCV therapy were found significant (p = 0.009, 0.021 and 0.001) for SVR. Favorable genotypes are also found to be predominant across the Indian study population.

DOI: 10.1007/s13337-019-00535-4
PMCID: PMC6863998 [Available on 2020-09-01]
PMID: 31803800

156: Sahay P, Maharana PK, Shaikh N, Goel S, Sinha R, Agarwal T, Sharma N, Titiyal JS. Intra-lenticular lens aspiration in paediatric cases with anterior dislocation of lens. Eye (Lond). 2019 Sep;33(9):1411-1417. doi: 10.1038/s41433-019-0426-y. Epub 2019 Apr 3. PubMed PMID: 30944461.

PURPOSE: To assess the outcomes of intra-lenticular lens aspiration (ILLA) in paediatric cases with anterior dislocation of lens.
METHODS: A retrospective review of medical records of cases with anterior dislocation of the lens in children (age < 16 years) that underwent ILLA between June 2017 and May 2018 was performed. Corrected distance visual acuity (CDVA),

intraocular pressure (IOP), and anterior segment findings were noted at presentation and follow-up. Surgical notes were reviewed for all cases. Post-operative central corneal thickness (CCT) and central macular thickness (CMT) were recorded.
RESULTS: Eleven eyes of eight patients with a median age of ten years underwent ILLA. There were four males and four females. The median duration of symptoms was 2 months, CDVA was 1.77 logMAR, and IOP was 16 mm of Hg. Ten eyes had corneo-lenticular touch with corneal oedema, and two had raised IOP at presentation. Homocystinuria (n = 2/8), Microspherophakia (n = 2/8), Marfan syndrome (n = 1/8), Buphthalmos (n = 1/8) and Ectopia lentis et pupillae (n = 1/8) were the identifiable causes for anterior dislocation. There were no intra-operative complications in any case. Immediate post-operative corneal oedema and raised IOP was observed in nine and three cases respectively and was treated with medical therapy. The median post-operative CDVA and IOP at 6-months was 1 logMAR and 15 mm of Hg respectively. The median CCT and CMT were 516 and 248 µm respectively. Five eyes developed a central corneal descemet scar.
CONCLUSIONS: ILLA is a safe and effective technique for surgical removal of an anteriorly dislocated lens in paediatric cases.

DOI: 10.1038/s41433-019-0426-y
PMID: 30944461

157: Sahoo T, Gulla KM. Stem cells for bronchopulmonary dysplasia: A promising yet challenging journey lies ahead. J Pediatr. 2019 Sep;212:246. doi: 10.1016/j.jpeds.2019.05.063. Epub 2019 Jun 27. PubMed PMID: 31255387.

158: Saluja G, Bhari A. Monocular elevation deficit after scleral perforation repair. BMJ Case Rep. 2019 Sep 12;12(9). pii: e231361. doi: 10.1136/bcr-2019-231361. PubMed PMID: 31519722.

Monocular elevation deficit can result from either inferior rectus restriction, superior rectus palsy or from supranuclear causes. We report a case of monocular elevation deficit after scleral perforation repair which was managed by surgery on contra lateral eye. This improved elevation of the affected eye with no diplopia in the postoperative period.

DOI: 10.1136/bcr-2019-231361
PMID: 31519722

159: Satyarthee GD. External Occipital Protuberance Projecting as Downward Curved Horn Presenting with Intractable Occipital Pain: Report of a First Case. J Pediatr Neurosci. 2019 Jul-Sep;14(3):173-174. doi: 10.4103/jpn.JPN_94_18. Epub 2019 Sep 27. PubMed PMID: 31649782; PubMed Central PMCID: PMC6798274.

External occipital protuberance is normal anatomical entity, rarely it may show hyperostosis and may get prominent and causing pain and examination reveals presence of tender bony swelling. However, such occurrence is extremely uncommon.

DOI: 10.4103/jpn.JPN_94_18
PMCID: PMC6798274
PMID: 31649782

160: Saxena A, Relan J, Agarwal R, Awasthy N, Azad S, Chakrabarty M, Dagar KS, Devagourou V, Dharan BS, Gupta SK, Iyer KS, Jayranganath M, Joshi R, Kannan B, Katewa A, Kohli V, Kothari SS, Krishnamoorthy KM, Kulkarni S, Kumar RM, Kumar RK, Maheshwari S, Manohar K, Marwah A, Mishra S, Mohanty SR, Murthy KS, Rao KN, Suresh PV, Radhakrishnan S, Rajashekar P, Ramakrishnan S, Rao N, Rao SG, Chinnaswamy Reddy HM, Sharma R, Shivaprakash K, Subramanyan R, Kumar RS, Talwar S, Tomar M, Verma S, Vijaykumar R. Indian guidelines for indications and timing of intervention for common congenital heart diseases: Revised and updated consensus statement of the Working group on management of congenital heart diseases. Ann Pediatr Cardiol. 2019 Sep-Dec;12(3):254-286. doi: 10.4103/apc.APC_32_19. PubMed PMID: 31516283; PubMed Central PMCID: PMC6716301.

A number of guidelines are available for the management of congenital heart diseases (CHD) from infancy to adult life. However, these guidelines are for patients living in high-income countries. Separate guidelines, applicable to Indian children, are required when recommending an intervention for CHD, as often these patients present late in the course of the disease and may have coexisting morbidities and malnutrition. Guidelines emerged following expert deliberations at the National Consensus Meeting on Management of Congenital Heart Diseases in India, held on August 10 and 11, 2018, at the All India Institute of Medical Sciences. The meeting was supported by Children's HeartLink, a nongovernmental organization based in Minnesota, USA. The aim of the study was to frame evidence-based guidelines for (i) indications and optimal timing of intervention in common CHD; (ii) follow-up protocols for patients who have undergone cardiac surgery/catheter interventions for CHD; and (iii) indications for use of pacemakers in children. Evidence-based recommendations are provided for indications and timing of intervention in common CHD, including left-to-right shunts (atrial septal defect, ventricular septal defect, atrioventricular septal defect, patent ductus arteriosus, and others), obstructive lesions (pulmonary stenosis, aortic stenosis, and coarctation of aorta), and cyanotic CHD (tetralogy of Fallot, transposition of great arteries, univentricular hearts, total anomalous pulmonary venous connection, Ebstein's anomaly, and others). In addition, protocols for follow-up of postsurgical patients are also described, disease wise. Guidelines are also given on indications for implantation of permanent pacemakers in children.

DOI: 10.4103/apc.APC_32_19
PMCID: PMC6716301
PMID: 31516283

161: Sebastian S, Malhotra R, Sreenivas V, Kapil A, Chaudhry R, Dhawan B. A Clinico-Microbiological Study of Prosthetic Joint Infections in an Indian Tertiary Care Hospital: Role of Universal 16S rRNA Gene Polymerase Chain Reaction and Sequencing in Diagnosis. Indian J Orthop. 2019 Sep-Oct;53(5):646-654. doi: 10.4103/ortho.IJOrtho_551_18. PubMed PMID: 31488935; PubMed Central PMCID: PMC6699216.

Background: We determined the magnitude and clinico-microbiological profile of prosthetic joint infection (PJI) at a tertiary hospital. The diagnostic potential of 16S rRNA gene polymerase chain reaction (PCR) and sequencing on periprosthetic tissue samples was evaluated for the diagnosis of PJI.
Materials and Methods: This ambispective cohort study consisted of patients who underwent primary or revision hip or knee arthroplasty from June 2013 to June 2017. The patients were classified as either infected or noninfected according to criteria set out by the musculoskeletal infection society (MSIS). Three to five periprosthetic tissue samples were collected from each patient for culture and 16S rRNA gene PCR sequencing.
Results: Hundred and six patients were diagnosed to have PJI as per the MSIS Criteria. The cumulative incidence of PJI at our Institute at the end of 36 months was 1.1% (95% confidence interval [CI]: 0.59-2.91). Microorganisms were isolated by periprosthetic tissue culture (PTC) in 84 patients (sensitivity: 79% and specificity: 100%). Gram-negative aerobes were most frequently isolated (61%). Polymicrobial infections were present in 8.3% of cases. The most common infecting microorganism was Staphylococcus aureus (19.5%). Multidrug resistance and methicillin resistance were noted in 54% and 34% of bacterial isolates, respectively. The sensitivity and specificity of 16S rRNA PCR of periprosthetic tissue was 86% (95% CI: 74.9-89.9) and 100% (95% CI: 94.7-100), respectively. Periprosthetic tissue 16S rRNA PCR was more sensitive than PTC (P = 0.008), although both were 100% specific (P = 0.99).
Conclusions: The incidence of PJI at our Institute compares well with other published reports. Contrary to previous reports, a predominance of Gram-negative PJI's was found. The preponderance of multidrug-resistant organisms in PJI's is worrisome. The high sensitivity and specificity of the 16S PCR assay used in our study support its use in culture-negative PJI suspected cases.

DOI: 10.4103/ortho.IJOrtho_551_18
PMCID: PMC6699216
PMID: 31488935

162: Sehgal VN, Malhotra R. Pharmacology and Therapeutics of Corticosteroids Sparing Maintenance Immunosuppressive/Adjunct Therapy Drugs. Skinmed. 2019 Sep 9;17(3):172-179. eCollection 2019. PubMed PMID: 31496471.

Glucocorticoids, corticosteroids/steroids sparing (replacement) maintenance immunosuppressive/adjunct drugs delivery has always been a challenging overture. Azathioprine, cyclophosphamide, dapsone, immunoglobulin, and interferon are agents in this category. The pharmacology and pharmacokinetics of the preceding drugs include specific recommendations, generic names, availability, mode of administration, dosage schedule, and the essentials of drug management.

PMID: 31496471

163: Selvan H, Pujari A, Sachan A, Gupta S, Sharma N. Neglected ocular surface care in critical care medicine: An observational study. Cont Lens Anterior Eye. 2019 Sep 2. pii: S1367-0484(19)30185-7. doi: 10.1016/j.clae.2019.08.009. [Epub ahead of print] PubMed PMID: 31488350.

AIM: To study the prevalence of lagophthalmos and its related complications among

the unconscious patients admitted in the intensive care units (ICU)/wards of a tertiary care centre.
METHODS: Cross-sectional observational study.
RESULTS: A total of 87 unconscious patients were included. 44 were children and 43 were adults. The overall median age of patients was 16 years (range: 9 days-85 years). 53/87 (60.91%) showed signs of lagophthalmos, among which 56.60% (30/53) were children and 43.40% (23/53) were adults. There was no significant difference in the exposure patterns between children and adults (p = 0.25). Exposure related manifestations (conjunctival/corneal) were found in 49/87 patients (56.32%). The most common conjunctival manifestation was chemosis, occurring in 28/53 patients (52.83%). Corneal exposure was seen in 31/53 patients (58.49%), of which fragile epithelium was the commonest finding (32.08%). Only 17/31 (54.83%) cornea exposed eyes were taped, of which 15 were sub-optimal. 6 patients were unnecessarily taped. Signs of infection were noted in 8/53 eyes (15.09%).
CONCLUSION: Optimal eye care in unconscious patients can avert the development of exposure-related complications and subsequent ocular morbidity. Adoption and implementation of systematic protocols can help improve the standard of care.

DOI: 10.1016/j.clae.2019.08.009
PMID: 31488350

164: Shah MK, Kondal D, Patel SA, Singh K, Devarajan R, Shivashankar R, Ajay VS, Menon VU, Varthakavi PK, Viswanathan V, Dharmalingam M, Bantwal G, Sahay RK, Masood MQ, Khadgawat R, Desai A, Prabhakaran D, Narayan KMV, Tandon N, Ali MK. Effect of a multicomponent intervention on achievement and improvements in quality-of-care indices among people with Type 2 diabetes in South Asia: the CARRS trial. Diabet Med. 2019 Sep 3. doi: 10.1111/dme.14124. [Epub ahead of print] PubMed PMID: 31479537.

AIMS: To evaluate whether and what combinations of diabetes quality metrics were achieved in a multicentre trial in South Asia evaluating a multicomponent quality improvement intervention that included non-physician care coordinators to promote adherence and clinical decision-support software to enhance physician practices, in comparision with usual care.
METHODS: Using data from the Centre for Cardiometabolic Risk Reduction in South Asia (CARRS) trial, we evaluated the proportions of trial participants achieving specific and combinations of five diabetes care targets (HbA1c <53 mmol/mol [7%], blood pressure <130/80 mmHg, LDL cholesterol <2.6 mmol/L, non-smoking status, and aspirin use). Additionally, we examined the proportions of participants achieving the following risk factor improvements from baseline: ≥11-mmol/mol (1%) reduction in HbA1c , ≥10-mmHg reduction in systolic blood pressure, and/or ≥0.26-mmol/l reduction in LDL cholesterol.
RESULTS: Baseline characteristics were similar in the intervention and usual care arms. Overall, 12.3%, 29.4%, 36.5%, 19.5% and 2.2% of participants in the intervention group and 16.2%, 38.3%, 31.6%, 11.3% and 0.8% of participants in the usual care group achieved any one, two, three, four or five targets, respectively. We noted sizeable improvements in HbA1c , blood pressure and cholesterol, and found that participants in the intervention group were twice as likely to achieve improvements in all three indices at 12 months that were

sustained over 28 months of the study [relative risk 2.1 (95% CI 1.5,2.8) and 1.8 (95% CI 1.5,2.3), respectively].
CONCLUSIONS: The intervention was associated with significantly higher achievement of and greater improvements in composite diabetes quality care goals. However, among these higher-risk participants, very small proportions achieved the complete group of targets, which suggests that achievement of multiple quality-of-care goals is challenging and that other methods may be needed in closing care gaps.

DOI: 10.1111/dme.14124
PMID: 31479537

165: Shakya S, Kumari R, Suroliya V, Tyagi N, Joshi A, Garg A, Singh I, Kalikavil Puthanveedu D, Cherian A, Mukerji M, Srivastava AK, Faruq M. Whole exome and targeted gene sequencing to detect pathogenic recessive variants in early onset cerebellar ataxia. Clin Genet. 2019 Dec;96(6):566-574. doi: 10.1111/cge.13625. Epub 2019 Sep 1. PubMed PMID: 31429931.

Over 100 genetically distinct causal known loci for hereditary ataxia phenotype poses a challenge for diagnostic work-up for ataxia patients in a clinically relevant time and precision. In the present study using next-generation sequencing, we have investigated pathogenic variants in early-onset cerebellar ataxia cases using whole exome sequencing in singleton/family-designed and targeted gene-panel sequencing. A total of 98 index patients were clinically and genetically (whole exome sequencing (WES) in 16 patients and targeted gene panel of 41 ataxia causing genes in 82 patients) evaluated. Four families underwent WES in family based design. Overall, we have identified 24 variants comprising 20 pathogenic and four likely-pathogenic both rare/novel, variations in 21 early onset cerebellar ataxia patients. Among the identified variations, SACS (n = 7) and SETX (n = 6) were frequent, while ATM (n = 2), TTPA (n = 2) and other rare loci were observed. We have prioritized novel pathogenic variants in RARS2 and FA2H loci through family based design in two out of four families.

DOI: 10.1111/cge.13625
PMID: 31429931

166: Shalimar, Sheikh MF, Mookerjee RP, Agarwal B, Acharya SK, Jalan R. Reply. Hepatology. 2019 Sep;70(3):1084-1085. doi: 10.1002/hep.30756. PubMed PMID: 31077600.

167: Shalimar, Sheikh MF, Mookerjee RP, Agarwal B, Acharya SK, Jalan R. Prognostic Role of Ammonia in Patients With Cirrhosis. Hepatology. 2019 Sep;70(3):982-994. doi: 10.1002/hep.30534. Epub 2019 Mar 21. PubMed PMID: 30703853.

Ammonia is thought to be central to the pathogenesis of hepatic encephalopathy (HE), but its prognostic role in patients with cirrhosis and acute decompensation is unknown. The aims of this study were to determine the relationship between

ammonia levels and severity of HE and its association with organ dysfunction and short-term mortality. We identified 498 patients from two institutions as part of prospective observational studies in patients with cirrhosis. Plasma ammonia levels were measured on admission and Chronic Liver Failure-Sequential Organ Failure Assessment criteria were used to determine the presence of organ failures. The 28-day patient survival was determined. Receiver operating characteristic analysis was used to identify the cutoff points for ammonia values, and multivariable analysis was performed using the Cox proportional hazard regression model. The 28-day mortality was 43.4%. Plasma ammonia correlated with severity of HE ($P < 0.001$), was significantly higher in nonsurvivors (93 [73-121] versus 67 [55-89] μmol/L, $P < 0.001$), and was an independent predictor of 28-day mortality (hazard ratio, 1.009, $P < 0.001$). An ammonia level of 79.5 μmol/L had sensitivity of 68.1% and specificity of 67.4% for predicting 28-day mortality. An ammonia level of ≥79.5 μmol/L was associated with a higher frequency of organ failures (liver [$P = 0.004$], coagulation [$P < 0.001$], kidney [$P = 0.004$], and respiratory [$P < 0.001$]). Lack of improvement in baseline ammonia at day 5 was associated with high mortality (70.6%). Conclusion: Ammonia level correlates with not only the severity of HE but also the failure of other organs and is an independent risk factor for mortality; lack of improvement in ammonia level is associated with high risk of death, making it an important biomarker and a therapeutic target.

DOI: 10.1002/hep.30534
PMID: 30703853

168: Shankar H, Kumar N, Sandhir R, Singh MP, Mittal S, Adhikari T, Tarique M, Kaur P, Radhika MS, Kumar A, Rao DN. Association of dietary intake below recommendations and micronutrient deficiencies during pregnancy and low birthweight. J Perinat Med. 2019 Sep 25;47(7):724-731. doi: 10.1515/jpm-2019-0053. PubMed PMID: 31318696.

Background Pregnancy is associated with biochemical changes leading to increased nutritional demands for the developing fetus that result in altered micronutrient status. The Indian dietary pattern is highly diversified and the data about dietary intake patterns, blood micronutrient profiles and their relation to low birthweight (LBW) is scarce. Methods Healthy pregnant women (HPW) were enrolled and followed-up to their assess dietary intake of nutrients, micronutrient profiles and birthweight using a dietary recall method, serum analysis and infant weight measurements, respectively. Results At enrolment, more than 90% of HPW had a dietary intake below the recommended dietary allowance (RDA). A significant change in the dietary intake pattern of energy, protein, fat, vitamin A and vitamin C ($P<0.001$) was seen except for iron (Fe) [chi-squared ($\chi2$) $=3.16$, $P=0.177$]. Zinc (Zn) deficiency, magnesium deficiency (MgDef) and anemia ranged between 54-67%, 18-43% and 33-93% which was aggravated at each follow-up visit ($P\leq0.05$). MgDef was significantly associated with LBW [odds ratio (OR): 4.21; $P=0.01$] and the risk exacerbate with the persistence of deficiency along with gestation (OR: 7.34; $P=0.04$). Pre-delivery (OR: 0.57; $P=0.04$) and postpartum (OR: 0.37; $P=0.05$) anemia, and a vitamin A-deficient diet (OR: 3.78; $P=0.04$) were significantly associated with LBW. LBW risk was much higher in women consuming a vitamin A-deficient diet throughout gestation compared to vitamin A-sufficient dietary intake (OR: 10.00; $P=0.05$). Conclusion The studied

population had a dietary intake well below the RDA. MgDef, anemia and a vitamin A-deficient diet were found to be associated with an increased likelihood of LBW. Nutrient enrichment strategies should be used to combat prevalent micronutrient deficiencies and LBW.

DOI: 10.1515/jpm-2019-0053
PMID: 31318696

169: Sharma A, Sahu SA, Agrawal K. Nasendoscopic Findings of Velopharyngeal Sphincter in Operated Cleft Palate Patients: Is It Different than Normal Population. Indian J Plast Surg. 2019 May;52(2):178-182. doi: 10.1055/s-0039-1696634. Epub 2019 Sep 3. PubMed PMID: 31602133; PubMed Central PMCID: PMC6785332.

Objective This study was aimed for nasendoscopic assessment of velopharyngeal sphinteric closure in patients with operated cleft palate and to compare it with normal population. Design A cross-sectional study was done in a tertiary cleft care center in 30 patients with operated cleft palate after a minimum of 6 months of their surgery and 30 randomly selected volunteers with normal speech. Both groups were one-time evaluated by three observers using 70 degree rigid nasendoscope and/or pediatric fiber optic endoscope. Velopharyngeal sphincter closure characteristics in terms of pattern of closure, dominant element involved in the closure, degree of palatal movement, and completeness of the closure were evaluated, recorded, and compared between the groups. Results In both groups, the most common pattern of closure is coronal and soft palate is the dominant mobile element in velopharyngeal closure. All normal subjects showed complete closure of the sphincter with good soft palate movement. But only 50% of the operated patients with cleft showed complete closure and even less than them had good movements of the soft palate. Conclusions Although the pattern of the closure in the operated patients is similar to the normal subjects, the movement of the soft palate and completeness of the velopharyngeal sphincter closure still remain the problem in the operated palate patients.

DOI: 10.1055/s-0039-1696634
PMCID: PMC6785332
PMID: 31602133

170: Sharma BS, Garg K. Anterior Circulation Aneurysm Clipping - Pterional Craniotomy or Modified Pterional Craniotomy? Neurol India. 2019 Sep-Oct;67(5):1254-1256. doi: 10.4103/0028-3886.271281. PubMed PMID: 31744953.

171: Sharma R, Borkar S, Katiyar V, Goda R, Phalak M, Joseph L, Suri A, Chandra PS, Kale SS. Interplay of Dynamic Extension Reserve and T1 Slope in Determining the Loss of Cervical Lordosis Following Laminoplasty: A Novel Classification System. World Neurosurg. 2019 Sep 4. pii: S1878-8750(19)32368-X. doi: 10.1016/j.wneu.2019.08.212. [Epub ahead of print] PubMed PMID: 31493608.

BACKGROUND: Laminoplasty causes destruction of the posterior musculoligamentous complex, which may result in cervical kyphosis, or more commonly loss of cervical lordosis (LOCL). In this study, we evaluated the role of various preoperative radiologic parameters in predicting not only the LOCL/kyphosis but also the

functional outcomes in the form of change in Oswestry Disability Index (ODI) score following laminoplasty.
METHODS: Patients were evaluated both clinically and radiologically with dynamic cervical spine radiograph, noncontrast-enhanced computed tomography, and magnetic resonance imaging of the cervical spine preoperatively as well as at 1 year follow-up.
RESULTS: One hundred twenty-one patients who underwent laminoplasty for cervical spondylotic myelopathy/ossified posterior longitudinal ligament from 2011 to 2018 at our center were included in final analysis. In multivariate analysis, preoperative Cobb angle (P = 0.001), T1 slope (TIS; P = 0.001), and dynamic extension reserve (P < 0.001) were found to have an independent effect on LOCL. The receiver operating characteristic curve using the regression model significantly predicted LOCL >10° with an area under the curve of 88.3% (P < 0.001). Similarly, preoperative T1S (P = 0.036) and SVA (P < 0.001) were found to be independent predictors of significant improvement in ODI after laminoplasty. The receiver operating characteristic curve using the regression model significantly predicted change in ODI with an area under the curve of 83.7% (P < 0.001). Based on these findings, classification and scoring systems with good accuracy have been proposed for prediction of LOCL and improvement in ODI.
CONCLUSIONS: We have found that the chances of significant LOCL is determined by an interplay of preoperative Cobb angle, T1S, and dynamic extension reserve.

DOI: 10.1016/j.wneu.2019.08.212
PMID: 31493608

172: Sharma S, Kumar R, Rout G, Gamanagatti SR, Shalimar. Dabigatran as an oral anticoagulant in patients with Budd-Chiari syndrome post-percutaneous endovascular intervention. J Gastroenterol Hepatol. 2019 Sep 2. doi: 10.1111/jgh.14843. [Epub ahead of print] PubMed PMID: 31476024.

BACKGROUND AND AIM: Anticoagulants play an important role in the management of Budd-Chiari syndrome. There is a paucity of data on the efficacy and safety of direct-acting oral anticoagulants-dabigatran, among patients with Budd-Chiari syndrome.
METHODS: In a retrospective analysis of prospectively maintained data, the stent patency rates, major bleeding episode, and a composite endpoint of major bleed and/or mortality rates were compared between Budd-Chiari syndrome patients treated with dabigatran (n = 36) or vitamin K antagonists (n = 62) following endovascular intervention.
RESULTS: The baseline characteristics, including sites of block and types of interventions, were similar between the two groups. The mean duration of follow-up in the dabigatran and vitamin K antagonist groups was 10.5 ± 6.7 and 14.1 ± 6.9 months (P = 0.006), respectively. The endovascular stent patency rates were comparable between the dabigatran and vitamin K antagonist groups at 6 months (91% vs 96.5%) and 12 months (91% vs 93%), P = 0.296 (log-rank test), respectively. Major bleeding events were comparable between the dabigatran and vitamin K antagonist groups at 6 months (3.5% vs 2%) and 12 months (3.5% vs 6.5%), P = 0.895 (log-rank test), respectively. The composite endpoint of mortality and major bleed was comparable between dabigatran and vitamin K antagonists at 6 months (4% vs 5%) and 12 months (4% vs 8%), P = 0.875 (log-rank test), respectively.

CONCLUSIONS: Dabigatran, as compared with vitamin K antagonists, is associated with similar stent patency rates and complications among patients with Budd-Chiari syndrome post-endovascular intervention.

DOI: 10.1111/jgh.14843
PMID: 31476024

173: Sharma SC, Sakthivel P, Singh S, Kumar D. Boyce's sign in a large Zenker's diverticulum. Lancet Gastroenterol Hepatol. 2019 Sep;4(9):742. doi: 10.1016/S2468-1253(19)30187-6. PubMed PMID: 31387737.

174: Sharma U, Agarwal K, Hari S, Mathur SR, Seenu V, Parshad R, Jagannathan NR. Role of diffusion weighted imaging and magnetic resonance spectroscopy in breast cancer patients with indeterminate dynamic contrast enhanced magnetic resonance imaging findings. Magn Reson Imaging. 2019 Sep;61:66-72. doi: 10.1016/j.mri.2019.05.032. Epub 2019 May 22. PubMed PMID: 31128225.

PURPOSE: Dynamic contrast enhanced MRI (DCEMRI), diffusion weighted imaging (DWI) and in vivo proton (1H) magnetic resonance spectroscopy (MRS) provides functional and molecular nature of breast cancer. This study evaluates the potential of the combination of three MR parameters [curve kinetics, apparent diffusion coefficient (ADC) and total choline (tCho) concentration] determined from these techniques in increasing the sensitivity of breast cancer detection.
METHODS: MR investigations were carried out at 1.5 T on 56 patients with cytologically/histologically confirmed breast carcinoma. Single-voxel MRS was used to determine the tCho concentration. 3D FLASH was used for DCEMRI while single shot EPI based DWI was used for ADC determination.
RESULTS: On DCEMRI, one patient showed type I curve, while 8 showed type II and 47 showed type III curve thus giving a sensitivity of 83.9% as detection rate of malignancy. tCho concentration was above cut-off value (2.54 mmol/kg) for 50/56 cases giving a sensitivity of 89.3%. Among 9 indeterminate DCEMRI cases, tCho showed malignancy in 6 cases with type II curve. DWI detected malignancy in 54/56 cases that included 9 cases that were false negative on DCEMRI, yielding a sensitivity of 96.4%. A total of 54 cases showed malignancy when any two of the three MR parameters was positive for malignancy yielding a sensitivity of 96.4% while it increased to 100% when any one parameters showed positive result.
CONCLUSION: DWI showed highest sensitivity of detection compared to DCEMRI and MRS. Multi-parametric approach yielded 96.4% and 100% sensitivity when any two or one of the three parameters was taken as positive for malignancy, respectively. Also the results demonstrated that addition of DWI and MRS play a significant role in establishing the final diagnosis of malignancy, especially in cases where DCEMRI is indeterminate.

DOI: 10.1016/j.mri.2019.05.032
PMID: 31128225 [Indexed for MEDLINE]

175: Sharma VK, Bhari N, Patra S, Parihar AS. Platelet-Rich Plasma Therapy for

Androgenetic Alopecia. Indian J Dermatol. 2019 Sep-Oct;64(5):417-419. doi: 10.4103/ijd.IJD_363_17. PubMed PMID: 31543541; PubMed Central PMCID: PMC6749759.

176: Shubham S, Dhochak N, Singh A, Patel SK, Chakrabarty B, Sankar J, Gulati S, Kabra SK, Jaryal AK, Lodha R. Polyneuropathy in Critically Ill Mechanically Ventilated Children: Experience From a Tertiary Care Hospital in North India. Pediatr Crit Care Med. 2019 Sep;20(9):826-831. doi: 10.1097/PCC.0000000000002012. PubMed PMID: 31348111.

OBJECTIVES: To determine the prevalence of critical illness polyneuropathy and its risk factors in critically ill children mechanically ventilated for 7 days or more.
DESIGN: Observational cohort study.
SETTING: PICU of a tertiary care hospital from North India.
PATIENTS: Children 1-15 years old admitted in PICU from June 2016 to September 2017, mechanically ventilated for 7 days or more, excluding those with diagnosed neuromuscular disease, stroke, or spinal pathology.
INTERVENTION: Demographic details, diagnosis, treatment details, and anthropometry at admission and enrolment were recorded. Nerve conduction studies were performed after enrolment and repeated a week later, if the child was still in PICU. Medical Research Council scoring for muscle strength was performed in survivors. Risk factors including Pediatric Index of Mortality-2 score, sepsis, multiple organ dysfunction, hypoalbuminemia, use of steroids, neuromuscular-blocking agents, and vasopressors were recorded. Samples for the level of micronutrients (copper, zinc, folate, and vitamin B12) were collected at the time of enrolling the child and at the time of discharge.
MEASUREMENTS AND MAIN RESULTS: Thirty-two children were enrolled, of whom 29 had features of critical illness polyneuropathy on evaluation at day 8 of mechanical ventilation (prevalence, 90.6% [95% CI, 80.5-100%]). The polyneuropathy was axonal in 26 (81.2%), mixed in one patient (3.1%), and uncharacterized in two (6.2%). Sepsis and multiple organ dysfunction were present in 31 subjects (96.9%). No risk factors for critical illness polyneuropathy could be identified although the study was not sufficiently powered to do so. The difference between serum micronutrient levels (copper, zinc, folate, and vitamin B12) between patients who developed polyneuropathy, and those who did not, was statistically insignificant.
CONCLUSIONS: We observed a high prevalence of critical illness polyneuropathy in children in PICU, mechanically ventilated for 7 days or more; almost all of whom had underlying sepsis.

DOI: 10.1097/PCC.0000000000002012
PMID: 31348111

177: Shukla A, Aggarwal S. Hypereosinophilia Associated With Risperidone in a Drug-Naive Patient: A Case Report. J Clin Psychopharmacol. 2019 Sep/Oct;39(5):521-523. doi: 10.1097/JCP.0000000000001100. PubMed PMID: 31425463.

178: Shukla G, Gupta A, Chakravarty K, Joseph AA, Ravindranath A, Mehta M, Gulati S, Kabra M, Mohammed A, Poornima S. Rapid Eye Movement (REM) Sleep Behavior Disorder and REM Sleep without Atonia in the Young. Can J Neurol Sci. 2019 Sep 24:1-9. doi: 10.1017/cjn.2019.302. [Epub ahead of print] PubMed PMID: 31549602.

BACKGROUND: Rapid eye movement (REM) sleep behavior disorder (RBD) and REM sleep without atonia (RWA) have assumed much clinical importance with long-term data showing progression into neurodegenerative conditions among older adults. However, much less is known about RBD and RWA in younger populations. This study aims at comparing clinical and polysomnographic (PSG) characteristics of young patients presenting with RBD, young patients with other neurological conditions, and normal age-matched subjects.
METHODS: A retrospective chart review was carried out for consecutive young patients (<25 years) presenting with clinical features of RBD; and data were compared to data from patients with epilepsy, attention deficit hyperactivity disorder (ADHD), and autism, as well as normal subjects who underwent PSG during a 2-year-period.
RESULTS: Twelve patients fulfilling RBD diagnostic criteria, 22 autism patients, 10 with ADHD, 30 with epilepsy, and 14 normal subjects were included. Eight patients with autism (30%), three with ADHD (30%), one with epilepsy (3.3%), and six patients who had presented with RBD like symptoms (50%) had abnormal movements and behaviors during REM sleep. Excessive transient muscle activity and/or sustained muscle activity during REM epochs was found in all patients who had presented with RBD, in 16/22 (72%) autistic patients, 6/10 (60%) ADHD patients compared to only 6/30 (20%) patients with epilepsy and in none of the normal subjects.
CONCLUSION: We observed that a large percentage of young patients with autism and ADHD and some with epilepsy demonstrate loss of REM-associated atonia and some RBD-like behaviors on polysomnography similar to young patients presenting with RBD.

Publisher: Troubles du comportement en sommeil paradoxal et sommeil paradoxal sans atonie musculaire chez les jeunes. Contexte: Les troubles du comportement en sommeil paradoxal (TCSP) et le sommeil paradoxal sans atonie musculaire ont acquis une grande importance clinique. En effet, des données à long terme ont montré de quelle façon ils pouvaient progresser chez des adultes âgés atteints de maladies neurodégénératives. Toutefois, on en sait beaucoup moins au sujet des TCSP et du sommeil paradoxal sans atonie musculaire au sein des groupes d'âges plus jeunes. Cette étude entend donc comparer les caractéristiques cliniques et polysomnographiques (PSG) de jeunes patients donnant à voir des signes de TCSP à celles d'autres jeunes patients atteints d'autres troubles neurologiques et de sujets en bonne santé appariés en fonction de l'âge. Méthodes: Nous avons passé en revue de façon rétrospective les dossiers de jeunes patients (< 25 ans) donnant à voir des signes cliniques de TCSP et ayant été vus consécutivement. Les données recueillies ont été comparées aux données de patients atteints d'épilepsie, de troubles de l'attention avec hyperactivité et d'autisme ainsi qu'à celles de sujets en bonne santé soumis à des examens de PSG pendant une période de deux ans. Résultats: Au total, on a diagnostiqué chez 12 patients des TCSP. Ajoutons que 22 d'entre eux étaient atteints d'autisme alors que 10 étaient atteints de troubles de l'attention avec hyperactivité et 30 d'épilepsie. Mentionnons par ailleurs que 14 sujets en bonne santé ont été inclus dans cette étude. Après analyse, il s'est avéré que 8 patients atteints d'autisme (30 %), 3 de troubles de l'attention avec hyperactivité (30 %), 1 d'épilepsie (3,3 %) et 6 ayant donné à voir des symptômes ressemblant à ceux des TCSP (50 %) montraient des mouvements et des comportement anormaux en sommeil paradoxal. Des signes d'activité musculaire transitoire excessive et/ou d'activité musculaire durable lors d'épisodes de sommeil paradoxal ont été détectés chez tous les patients

satisfaisant aux critères des TCSP, chez 16 patients autistes sur 22 (72 %), chez 6 patients atteint de troubles de l'attention avec hyperactivité sur 10 (60 %) en comparaison avec seulement 6 patients épileptiques sur 30 (20 %) et aucun parmi les sujets en bonne santé. Conclusion: Lors d'examens polysomnographiques, nous avons en définitive observé qu'une forte proportion de jeunes patients atteints d'autisme et de troubles de l'attention avec hyperactivité, ainsi que quelques-uns atteints d'épilepsie, donnaient à voir des signes de perte de sommeil paradoxal associés à l'atonie musculaire ainsi que des comportements ressemblant à ceux de jeunes patients atteints de TCSP.
DOI: 10.1017/cjn.2019.302
PMID: 31549602

179: Sidharth, Sharma S, Jain P, Mathur SB, Malhotra RK, Kumar V. Status Epilepticus in Pediatric patients Severity Score (STEPSS): A clinical score to predict the outcome of status epilepticus in children- a prospective cohort study. Seizure. 2019 Oct;71:328-332. doi: 10.1016/j.seizure.2019.09.005. Epub 2019 Sep 11. PubMed PMID: 31536850.

PURPOSE: In adults, the Status Epilepticus Severity Score (STESS), a clinical score, has been shown to be a good predictor of outcome and treatment response. We devised a pediatric modification of this score: the Status Epilepticus in Pediatric patients Severity Score (STEPSS) and evaluated it in children with status epilepticus.
METHODS: In this prospective study, children aged 1 month to 18 years presenting with seizure duration ≥ 5 min or actively convulsing to the emergency room were enrolled. STEPSS score was calculated at the time of admission. Outcomes included death, the Pediatric Overall Performance Category (POPC) at discharge and treatment response. The diagnostic utility of the STEPSS score to predict unfavourable outcome was evaluated.
RESULTS: One-hundred and forty children (mean age 5.8 years) were enrolled. Seven children died and overall 15 children had an unfavourable outcome. The predictive accuracy of STEPSS at a cut-off of >3: for unfavourable outcome (POPC score ≥ 3) - sensitivity (0.93 [95% CI: 68, 99.8]), specificity (0.81 [95% CI: 0.73, 0.87]), PPV (0.37 [95% CI: 0.22, 0.54]), NPV (0.99 [95% CI: 0.95-1.0]), positive likelihood ratio (4.86), F1 score (0.530); for death - sensitivity (0.86 [95% CI: 0.42, 0.99]), specificity (0.76 [95% CI: 0.68-0.83]), PPV (0.16 [95% CI: 0.06, 0.31]), NPV (0.99 [95% CI: 0.95, 1.0]), F1 score (0.270).
CONCLUSIONS: The STEPSS, a simple bedside clinical score, was found to be useful to predict the outcome and treatment response in children with status epilepticus.

DOI: 10.1016/j.seizure.2019.09.005
PMID: 31536850

180: Singh A, Verma AK, Das P, Prakash S, Pramanik R, Nayak B, Datta Gupta S, Sreenivas V, Kumar L, Ahuja V, Makharia GK. Non-immunological biomarkers for assessment of villous abnormalities in patients with celiac disease. J Gastroenterol Hepatol. 2019 Sep 9. doi: 10.1111/jgh.14852. [Epub ahead of print] PubMed PMID: 31498492.

BACKGROUND AND AIM: Demonstration of villous abnormalities is an essential component of diagnosis of celiac disease (CeD) that requires duodenal biopsies. There is a need for non-invasive biomarker(s) that can predict the presence of villous abnormalities.
METHODS: Levels of plasma citrulline, plasma intestinal fatty acid binding protein (I-FABP), and serum regenerating gene 1α (Reg1α) were estimated in treatment naïve patients with CeD and controls. The levels of these biomarkers and their cyclical pattern were validated in a predicted model of enteropathy. Optimum diagnostic cut-off values were derived, and the results were further validated in a prospective validation cohort.
RESULTS: While level of plasma citrulline was significantly lower, the levels of plasma I-FABP and serum Reg1α were significantly higher in patients with CeD (n = 131) in comparison with healthy (n = 216) and disease controls (n = 133), and their levels reversed after a gluten-free diet (GFD). In the model of predicted enteropathy (n = 70), a sequential decrease and then increase in the level of plasma citrulline was observed; such a sequential change was not observed with I-FABP and Reg1α. The diagnostic accuracy for prediction of presence of villous abnormality was 89% and 78% if citrulline level was ≤ 30 μM/L and I-FABP levels were ≥ 1100 pg/mL, respectively. The results were validated in a prospective validation cohort (n = 104) with a sensitivity and specificity of 79.5% and 83.1%, respectively, for predicting villous abnormalities of modified Marsh grade > 2 at calculated cut-off values of citrulline and I-FABP.
CONCLUSIONS: Plasma citrulline ≤ 30 μM/L is the most consistent, highly reproducible non-invasive biomarker that can predict the presence of villous abnormality and has the potential for avoiding duodenal biopsies in 78% patients suspected to have CeD.

DOI: 10.1111/jgh.14852
PMID: 31498492

181: Singh A, Kuzhikkali V, Haq M. Irritant Contact Dermatitis With Topical Povidone-Iodine Ointment Post Ear Surgery. Ear Nose Throat J. 2019 Sep 23:145561319876908. doi: 10.1177/0145561319876908. [Epub ahead of print] PubMed PMID: 31547715.

182: Singh M. Surgery for Vestibular Schwannoma following Stereotactic Radiosurgery. Neurol India. 2019 Sep-Oct;67(5):1279. doi: 10.4103/0028-3886.271286. PubMed PMID: 31744958.

183: Singh MK, Singh L, Chosdol K, Pushker N, Meel R, Bakhshi S, Sen S, Kashyap S. Clinicopathological relevance of NFÎ°B1/p50 nuclear immunoreactivity and its relationship with the inflammatory environment of uveal melanoma. Exp Mol Pathol. 2019 Dec;111:104313. doi: 10.1016/j.yexmp.2019.104313. Epub 2019 Sep 15. PubMed PMID: 31533021.

PURPOSE: To analyze the activation of NFκB1/p50 in the inflammatory and

non-inflammatory environment of uveal melanoma and its association with clinicopathological factors and patient outcome.
METHODS: Activation of NFκB1/p50 was evaluated in 75 cases of uveal melanoma by immunohistochemistry. mRNA expression in 58 fresh UM specimen was measured by quantitative reverse-transcriptase PCR (qRT-PCR). Western blotting was performed to validate the immunohistochemistry results in representative cases.
RESULTS: Forty-five cases showed both cytoplasmic and nuclear immunoreactivity of NFκB1/p50. Increased level of NFκB1/p50 activation was more frequent in the inflammatory environment group as compared to non-inflammatory environment group at both transcriptional and translational level. In multivariate analysis, infiltrating macrophages and nuclear immunoreactivity of NFκB1/p50 ($p < .05$) in tumor cells were found to be an independent prognostic factor for poor survival.
CONCLUSION: Our results suggest that nuclear immunoreactivity NFκB1/p50 may serve as a useful marker in assessing the prognosis of uveal melanoma patients.

DOI: 10.1016/j.yexmp.2019.104313
PMID: 31533021

184: Singh N, Davis AA, Kumar S, Kriplani A. The effect of administration of intravenous intralipid on pregnancy outcomes in women with implantation failure after IVF/ICSI with non-donor oocytes: A randomised controlled trial. Eur J Obstet Gynecol Reprod Biol. 2019 Sep;240:45-51. doi: 10.1016/j.ejogrb.2019.06.007. Epub 2019 Jun 13. PubMed PMID: 31228675.

OBJECTIVE: Does the administration of intravenous intralipid in women with previous implantation failure at the time of embryo transfer improve pregnancy outcomes in terms of biochemical pregnancy rate, clinical pregnancy rate, ongoing pregnancy rate, and ongoing pregnancy rate?
STUDY DESIGN: This was a single blinded randomised controlled trial of 105 subjects with previous failed IVF undergoing self donor oocyte IVF/ICSI from January 2017 to May 2018. Randomisation was by computer generated sequence after oocyte pickup. Results were analysed for 102 women, excluding three women due to poor embryo quality. Women in the study arm($n = 52$) received 2 doses of 20% intravenous intralipid (Fresenius Kabi), 4 ml diluted in 250 ml normal saline by slow infusion. The first dose was given immediately after oocyte recovery, and the second dose was given on the day of embryo transfer, 1 h prior to the transfer. The control group ($n = 50$) received normal saline. Flexible ovarian stimulation protocols were used. All the women received routine luteal phase support with micronised vaginal progesterone.
RESULTS: 102 women underwent analysis, 52 in the study group and 50 in control group. There was no significant difference in the baseline characteristics. There was a significant difference in the biochemical pregnancy rate in the intralipid group (40.38%) versus control (16%) [($p = 0.006$), RR = 2.5 (1.23-5.16 CI)], clinical pregnancy rate [(34.62% vs 14%), $p = 0.006$, RR = 2.5(1.13-5.40 CI)], implantation rate [(16.6% vs 6.6%), $p = 0.012$, RR = 2.5(1.18 to 5.41 CI)], and take home baby rate [28.8% vs 10%, $p = 0.024$, RR = 2.8(1.1-7.3)]. The adjusted odds ratio for clinical pregnancy in women who received intralipid vs placebo was 3.1 (1.02-9.70 95% CI), $p = 0.046$. No adverse effects of intralipid were observed.
CONCLUSION: This study shows a statistically significant increase in implantation

rate and live birth rate in women who receive intravenous intralipid with prior implantation failure after IVF/ICSI. These findings concur with other studies; however, literature is limited. The effect of intralipid on the immunological abnormalities in women who experience recurrent implantation failure needs to be investigated further.

DOI: 10.1016/j.ejogrb.2019.06.007
PMID: 31228675

185: Singh P, Singh A, Silvester JA, Sachdeva V, Chen X, Xu H, Leffler DA, Ahuja V, Duerksen DR, Kelly CP, Makharia GK. Inter- and Intra-assay Variation in the Diagnostic Performance of Assays for Anti-tissue Transglutaminase in 2 Populations. Clin Gastroenterol Hepatol. 2019 Sep 20. pii: S1542-3565(19)31023-7. doi: 10.1016/j.cgh.2019.09.018. [Epub ahead of print] PubMed PMID: 31546060.

Tissue transglutaminse-2 (TG2)-based immunoassays are the cornerstone of diagnosis in celiac disease (CeD), with a reported pooled sensitivity as high as 98%.1 However, a few small, single-center studies have questioned their sensitivity in clinical practice.2-5 Moreover, commercial kits use variable TG2 antigens,6 with cutoffs determined by using small, poorly defined populations. Variation in diagnostic performance of anti-TG2 assays in different racial and geographic populations has not yet been studied. We compared the interassay and intra-assay variations in diagnostic performance of 4 immunoglobulin (Ig)A-anti-TG2 assays in Canadian and Indian populations.

DOI: 10.1016/j.cgh.2019.09.018
PMID: 31546060

186: Singh P, Rajput R, Mehra NK, Vajpayee M, Sarin R. Cytokine gene polymorphisms among North Indians: Implications for genetic predisposition? Infect Genet Evol. 2019 Sep;73:450-459. doi: 10.1016/j.meegid.2019.06.004. Epub 2019 Jun 4. PubMed PMID: 31173933.

Variations in the production and activity of cytokines influence the susceptibility and/or resistance to various infectious agents, autoimmune diseases, as well as the post-transplant engraftment/ rejection. Differences in the production of cytokines between individuals have been correlated to single nucleotide polymorphisms (SNPs) in the promoter, coding or non-coding regions of cytokine genes. The present study aimed at understanding distribution of cytokine gene variants among HIV seropositive subjects including HIV+TB+ subjects of Indian origin. Our findings indicate significant association of pro-inflammatory (IL2, IFN-γ, TNF-α) and anti-inflammatory cytokine gene variants (IL4, IL10) with the risk to acquire the HIV infection and development of AIDS related illness in Indian population. Since distribution of genetic polymorphisms varies significantly across different populations, different genotypes might exhibit different disease-modifying effects. An understanding of the immunogenetic factors or AIDS restriction genes is important not only for elucidating the mechanisms of disease pathogenesis but also for vaccine design and its application.

DOI: 10.1016/j.meegid.2019.06.004
PMID: 31173933

187: Singh S, Kosana D, Lal R. Long-term intentional Datura use and its consequences. Indian J Psychiatry. 2019 Sep-Oct;61(5):543-544. doi: 10.4103/psychiatry.IndianJPsychiatry_276_18. PubMed PMID: 31579191; PubMed Central PMCID: PMC6767831.

188: Singh S, Balhara YPS, Gupta P, Christodoulou NG. Primary and secondary prevention strategies against illicit drug use among adults aged 18-25: a narrative review. Australas Psychiatry. 2019 Sep 17:1039856219875048. doi: 10.1177/1039856219875048. [Epub ahead of print] PubMed PMID: 31526182.

OBJECTIVES: We reviewed the literature for preventive programs against illicit drug use that specifically target adults aged 18-25 (i.e. emerging adults).
METHODS: Narrative review of preventive programs that have a high strength of recommendation according to the US Preventive Services Task Force (USPSTF) grading system.
RESULTS: Prevention programs that met the criteria are school and college based, family-based, community based, peer-led, workplace-based, and technology-based interventions. They target the known modifiable risk factors associated with illicit drug use among adolescents and young adults.
CONCLUSION: The preventive programs we reviewed are utilizing evidence-based strategies for the prevention of illicit drug use. Further research is needed to formulate new and effective preventive strategies for the reduction of illicit drug use by emerging adults.

DOI: 10.1177/1039856219875048
PMID: 31526182

189: Singh S, Kumar S, Mahal P, Vishwakarma A, Deep R. Self-reported medication adherence and its correlates in a lithium-maintained cohort with bipolar disorder at a tertiary care centre in India. Asian J Psychiatr. 2019 Dec;46:34-40. doi: 10.1016/j.ajp.2019.09.015. Epub 2019 Sep 23. PubMed PMID: 31590007.

BACKGROUND: Lithium remains a cornerstone of prophylaxis in bipolar disorder (BD), but adherence continues to be a major clinical challenge and merits a closer attention. There is scant literature available in Indian as well as Asian context.
METHODS: This study was conducted at Department of Psychiatry, AIIMS, New Delhi with an aim to assess the self-reported medication adherence and its correlates among a naturalistic, lithium-maintained cohort (n = 76) with bipolar disorder. Subjects were included if they were on lithium therapy ≥1 year, met DSM-5 diagnosis of bipolar disorder and were in clinical remission (≥1 month). Besides sociodemographic and clinical performa, participants were assessed on medication adherence rating scale (MARS), lithium questionnaire for knowledge and lithium attitude questionnaire (LAQ).
RESULTS: Mean age was 35.7 ± 10.6 years (males: 59.2%); median duration of illness and lithium therapy was 84 months and 24.5 months, respectively. Mean

MARS score was 6.95±2.81. Regression analysis (with MARS total as dependent variable) found LAQ score to be the single most significant predictor variable (β=-0.681, p<0.0001), explaining over 75% of the total variance. In regression model with MARS factor-1 score as dependent variable, the 'LAQ score' (β=-0.601, p<0.0001) and 'being accompanied by family during psychiatric visits (always/mostly) in the past year' (β=0.193, p=0.010) emerged as significant predictor variables.
CONCLUSION: Adherence in lithium-maintained treatment-seeking cohort of patients with BD remains far from ideal as observed in this naturalistic setting. Lithium-related attitudes and being accompanied by family during psychiatric visits were found to be significant predictors for adherence.

DOI: 10.1016/j.ajp.2019.09.015
PMID: 31590007

190: Singhal D, Roop P, Maharana PK. Intrastromal cyst in Terrien's marginal degeneration. Indian J Ophthalmol. 2019 Sep;67(9):1475. doi: 10.4103/ijo.IJO_2097_18. PubMed PMID: 31436201; PubMed Central PMCID: PMC6727702.

191: Singhal D, Goel S, Maharana PK. Influence of Lens Status on Outcomes of Descemet Membrane Endothelial Keratoplasty. Cornea. 2019 Sep;38(9):e35. doi: 10.1097/ICO.0000000000002021. PubMed PMID: 31169607.

192: Sinha M, Pandey NN, Sharma A. Dual Coronary Compression: An Exceedingly Rare Complication Secondary to Annuloaortic Ectasia. Ann Thorac Surg. 2020 Feb;109(2):e153. doi: 10.1016/j.athoracsur.2019.07.087. Epub 2019 Sep 14. PubMed PMID: 31526785.

193: Sinha M, Pandey NN, Parashar N, Ojha V, Sharma A. Subaortic Diverticula in Association With Aortic Stenosis. Ann Thorac Surg. 2020 Feb;109(2):e151. doi: 10.1016/j.athoracsur.2019.07.089. Epub 2019 Sep 14. PubMed PMID: 31526784.

194: Sinha M, Pandey NN, Rajagopal R, Parashar N, Sharma A. Single coronary artery from ascending aorta cranial to non-coronary sinus with pre-pulmonic course: A hitherto undescribed association of tetralogy of Fallot. J Cardiovasc Comput Tomogr. 2019 Sep 23. pii: S1934-5925(19)30341-7. doi: 10.1016/j.jcct.2019.09.013. [Epub ahead of print] PubMed PMID: 31561978.

195: Sinha M, Pandey NN, Rajagopal R, Jagia P. Tricuspid atresia with Type-III levo-transposition of great arteries: A tryst with twin tribulations. J Cardiovasc Comput Tomogr. 2019 Sep 23. pii: S1934-5925(19)30277-1. doi: 10.1016/j.jcct.2019.09.010. [Epub ahead of print] PubMed PMID: 31561977.

196: Sinha M, Pandey NN, Bhambri K, Kumar S. Type A3 truncus arteriosus with infracardiac total anomalous pulmonary venous return and single ventricle

physiology: A triad of tribulations. J Cardiovasc Comput Tomogr. 2019 Sep 23. pii: S1934-5925(19)30159-5. doi: 10.1016/j.jcct.2019.09.006. [Epub ahead of print] PubMed PMID: 31558378.

197: Sinha M, Pandey NN, Sharma A. Total anomalous pulmonary venous drainage to persistent left superior vena cava: a unique configuration. BMJ Case Rep. 2019 Sep 20;12(9). pii: e231898. doi: 10.1136/bcr-2019-231898. PubMed PMID: 31540928.

198: Sivanandan S, Jain K, Plakkal N, Bahl M, Sahoo T, Mukherjee S, Gupta YK, Agarwal R. Issues, challenges, and the way forward in conducting clinical trials among neonates: investigators' perspective. J Perinatol. 2019 Sep;39(Suppl 1):20-30. doi: 10.1038/s41372-019-0469-8. PubMed PMID: 31485015.

Clinical trials are essential to test the safety and efficacy of new treatments in any population. The paucity of drug trials especially in the neonatal population has led to the widespread use of unlicensed or off-label medications, exposing them to the risks of drug toxicity and ineffective treatment. Ethical and operational challenges are no longer considered valid excuses for not conducting drug trials in neonates. We recently participated in a combined phase-2 and phase-3 trial investigating a new indigenous goat lung surfactant extract (GLSE) for the treatment of respiratory distress syndrome (RDS) in preterm neonates. In this article, we share pertinent challenges faced by us during the trial to better inform and foster-positive discussion among drug developers, administrators, regulatory authorities, patient advocacy groups, and researchers. Also, we provide many tools developed for the GLSE trial that can be modified and used by prospective trialists.

DOI: 10.1038/s41372-019-0469-8
PMID: 31485015

199: Subramaniam R. Anaesthetic concerns in preterm and term neonates. Indian J Anaesth. 2019 Sep;63(9):771-779. doi: 10.4103/ija.IJA_591_19. Review. PubMed PMID: 31571691; PubMed Central PMCID: PMC6761779.

Anaesthesia for neonates is a composite of good knowledge of neonatal and transitional physiology combined with skill in airway maintenance and vascular access. When the newborn is a preterm, the complexities of management increase due to the small size and accompanying issues such as bronchopulmonary dysplasia and apnoea. World over, the number of survivors of preterm birth is on the increase. We searched Pubmed for "Anesthesia, apnea, neonatal, neonates, physiology, preterm, spinal anesthesia", as well as cross references from review articles. These babies have a high incidence of conditions warranting surgery (e.g., tracheoesophaeal fistula, congenital diaphragmatic hernia, anorectal malformations, incarcerated hernia, necrotising enterocolitis). The possibility of neurodevelopmental harm by anaesthetics is currently the topic of active research. In parallel, advances in paediatric anaesthesia equipment, use of regional and neuraxial anaesthesia and availability of monitoring have steadily increased the safety of anaesthesia in these tiny patients.

DOI: 10.4103/ija.IJA_591_19
PMCID: PMC6761779
PMID: 31571691

200: Sundar D, Sharma A, Chawla R, Hasan N. Coastline like peripheral chorioretinal degeneration as a suspected cause of nasal retinal dialysis. Indian J Ophthalmol. 2019 Sep;67(9):1500-1502. doi: 10.4103/ijo.IJO_167_19. PubMed PMID: 31436215; PubMed Central PMCID: PMC6727708.

Retinal dialysis is mostly associated with blunt trauma or at times spontaneous. A patient presented to us with fresh rhegmatogenous retinal detachment with no telltale history or signs of trauma. The causative break was retinal dialysis noted on the superonasal periphery. A characteristic peripheral chorioretinal degeneration simulating a coastline almost extending six clock hours was seen in both the eyes. We have discussed this rare presentation and the possibilities of the association between this newly identified lesion and spontaneous retinal dialysis in the following case report.

DOI: 10.4103/ijo.IJO_167_19
PMCID: PMC6727708
PMID: 31436215

201: Suri T, Makkar N, Ray A, Sood R. A unique case of hydropneumothorax in allergic bronchopulmonary aspergillosis. Med Mycol Case Rep. 2019 Jul 5;25:29-31. doi: 10.1016/j.mmcr.2019.07.003. eCollection 2019 Sep. PubMed PMID: 31338287; PubMed Central PMCID: PMC6626827.

Allergic bronchopulmonary aspergillosis (ABPA) is an immunologically mediated disease characterized by a hypersensitivity reaction to fungal colonization by Aspergillus. Hydropneumothoraces and bronchopleural fistulae are rare occurrences in patients with ABPA. However, the diagnosis of ABPA is important to consider, as it is easily treatable with specific therapy. We report an unusual case of a patient with ABPA who presented to us with hydropneumothorax with bronchopleural fistula.

DOI: 10.1016/j.mmcr.2019.07.003
PMCID: PMC6626827
PMID: 31338287

202: Suryanarayana Deo SV, Mishra A, Shukla NK, Sandeep B. Thoracoabdominal Flap: a Simple Flap for Covering Large Post-mastectomy Soft Tissue Defects in Locally Advanced Breast Cancer. Indian J Surg Oncol. 2019 Sep;10(3):494-498. doi: 10.1007/s13193-019-00927-4. Epub 2019 May 2. PubMed PMID: 31496598; PubMed Central PMCID: PMC6707995.

Locally advanced breast cancer (LABC) constitutes 40-50% of breast cancer in developing countries. Large soft tissue defects after mastectomy often require some additional cover. The primary aim of reconstruction in this group should be an expeditious and simple closure with good-quality skin cover, early recovery, and short hospital stay so that the patients can receive early post-operative radio-chemotherapy. Thoracoabdominal (TA) flap is a type-c fasciocutaneous flap and the skin and fat of the upper abdomen are used, based on medial or lateral perforating vessels. We present our experience of TA flap cover for large

post-mastectomy defects. A retrospective analysis of prospectively maintained breast cancer database in the Department of Surgical Oncology from January 1994 to December 2017 at All India Institute of Medical Sciences, New Delhi, was performed. The medical records of patients undergoing TA flap cover were analyzed to assess operative duration, blood loss, post-operative morbidity, hospital stay, adjuvant treatment, recurrence patterns, and survival outcome. A total of 3142 breast cancer patients underwent surgery, of which 1840 were LABC and 88 patients (4.13%) of LABC required flap cover for the closure of mastectomy defect. TA flap was used in majority of these patients 72/83 (86.7%) for cover. Majority was stage IIIB (54 out of 72) and we could achieveR0 resection in all patients. TA flap was done following MRM in 60 patients and RM in 12 patients. Upfront primary surgery was performed in 27 patients and 45 underwent surgery after neoadjuvant chemotherapy. Most commonly laterally based flaps were done, except 4 medially based flaps. The mean operating time was 30 min and blood loss was 45 ml. Mean hospital stay was 4.45 days. Superficial flap necrosis occurred in 6 and wound infection in 4 patients, all managed conservatively. Only 2 patients had major flap loss and required debridement and skin grafting. Planned post-operative radiation could be delivered in most of the patients in time. At a mean follow-up of 24 months, only 9 out of 72 (12.5%) patients had a loco-regional recurrence. Results of our experience show that TA flap is a simple, cost-effective procedure for managing large post-mastectomy soft tissue defects in LABC. It has huge potential in developing countries dealing with a large number of LABC because of simplicity and short learning curve.

DOI: 10.1007/s13193-019-00927-4
PMCID: PMC6707995 [Available on 2020-09-01]
PMID: 31496598

203: Talwar S, Siddharth B, Gupta SK, Bhoje A, Choudhary SK. Surgical repair for common arterial trunk with pulmonary dominance, hypoplasia of ascending aorta, and interrupted aortic arch. Ann Pediatr Cardiol. 2019 Sep-Dec;12(3):287-291. doi: 10.4103/apc.APC_147_18. PubMed PMID: 31516284; PubMed Central PMCID: PMC6716323.

The arrangement of aortic and pulmonary pathways is extremely variable in the hearts with a common arterial trunk. Almost always, interruption of the aortic arch is seen in the setting of hypoplasia of the ascending aorta and dominance of the pulmonary circulation. This subset poses substantial challenges in surgical repair and portends poor outcomes. In this report, we briefly describe the technique of ascending aorta reconstruction and other aspects of the surgical repair of this rare malformation.

DOI: 10.4103/apc.APC_147_18
PMCID: PMC6716323
PMID: 31516284

204: Talwar S, Chigurupati BS, Sengupta S, Rajashekar P, Sharma S, Magoon R, Choudhary SK. An alternative technique for intracardiac exposure during transatrial repair of tetralogy of fallot. J Card Surg. 2019 Nov;34(11):1347-1349. doi: 10.1111/jocs.14259. Epub 2019 Sep 19. PubMed PMID: 31536139.

The commonly used technique to facilitate intracardiac exposure

during transatrial repair of tetralogy of fallot involves considerable retraction of the tricuspid valve using retractors. We describe an alternative surgical technique in which it is possible to dispense away with the retractors. The advantages of such a technique are discussed.

DOI: 10.1111/jocs.14259
PMID: 31536139

205: Tamuli D, Kaur M, Boligarla A, Jaryal AK, Srivastava AK, Deepak KK. Depressed baroreflex sensitivity from spontaneous oscillations of heart rate and blood pressure in SCA1 and SCA2. Acta Neurol Scand. 2019 Nov;140(5):350-358. doi: 10.1111/ane.13151. Epub 2019 Sep 1. PubMed PMID: 31343735.

OBJECTIVES: To assess the time and frequency domain measures of cardiac autonomic activity/tone in patients of genetically defined spinocerebellar ataxia (SCA) types 1 and 2, as well as to decipher the probable associations among the cardiovascular autonomic parameters and genetic and clinical characteristics. MATERIALS AND METHODS: Simultaneous 5-min recording of RR interval (RRI) and blood pressure (BP) for the calculation of heart rate variability (HRV), blood pressure variability (BPV) and baroreflex sensitivity (BRS) were performed in genotypically confirmed SCA1 (n = 31) and SCA2 (n = 40) patients and healthy controls (n = 40). Additionally, the International Cooperative Ataxia Rating Scale (ICARS) was used for scoring of clinical severity in SCA patients. RESULTS: Time and frequency domain parameters of HRV, BPV and BRS were depressed in SCA1 and SCA2 subtypes as compared to controls, although there was no statistically significant difference in autonomic tone between the two SCA subtypes. On correlation analysis, autonomic tone parameters were found to be associated with the clinical and genetic features of the SCA subtypes. Also, ICARS was associated with the genotype (CAG repeat length) in SCA2 patents. CONCLUSIONS: Cardiac autonomic tone is depressed in both SCA1 and 2 as compared to healthy controls while the two SCA subtypes do not differ in terms of autonomic tone. Also, a typical association exists between disease characteristics and autonomic indices.

DOI: 10.1111/ane.13151
PMID: 31343735 [Indexed for MEDLINE]

206: Thakral D, Kaur G, Gupta R, Benard-Slagter A, Savola S, Kumar I, Anand R, Rani L, Verma P, Joshi S, Kumar L, Sharma A, Bakhshi S, Seth R, Singh V. Rapid Identification of Key Copy Number Alterations in B- and T-Cell Acute Lymphoblastic Leukemia by Digital Multiplex Ligation-Dependent Probe Amplification. Front Oncol. 2019 Sep 13;9:871. doi: 10.3389/fonc.2019.00871. eCollection 2019. PubMed PMID: 31572674; PubMed Central PMCID: PMC6753626.

Recurrent clonal genetic alterations are the hallmark of Acute Lymphoblastic Leukemia (ALL) and govern the risk stratification, response to treatment and clinical outcome. In this retrospective study conducted on ALL patient samples, the purpose was to estimate the copy number alterations (CNAs) in ALL by digitalMLPA (dMLPA), validation of the dMLPA data by conventional MLPA and

RT-PCR, and correlation of CNAs with Minimal Residual Disease (MRD) status. The ALL patient samples (n = 151; B-ALL, n = 124 cases and T-ALL, n = 27 cases) were assessed for CNAs by dMLPA for detection of sub-microscopic CNAs and ploidy status. This assay allowed detection of ploidy changes and CNAs by multiplexing of karyotyping probes and probes covering 54 key gene targets implicated in ALL. Using the dMLPA assay, CNAs were detected in ~89% (n = 131) of the cases with 66% of the cases harboring ≥3 CNAs. Deletions in CDKN2A/B, IKZF1, and PAX5 genes were detectable in a quarter of these cases. Heterozygous and homozygous gene deletions, and duplications were observed in genes involved in cell cycle control, tumor suppression, lineage differentiation, lymphoid signaling, and transcriptional regulators with implications in treatment response and survival outcome. Distinct CNAs profiles were evident in B-ALL and T-ALL cases. Additionally, the dMLPA assay could reliably identify ploidy status and copy number-based gene fusions (SIL-TAL1, NUP214-ABL, EBF1-PDGFRB). Cases of B-ALL with no detectable recurrent genetic abnormalities could potentially be risk stratified based on the CNA profile. In addition to the commonly used gene deletions for risk assessment (IKZF1, EBF1, CDKN2A/B), we identified a broader spectrum of gene alterations (gains of- RUNX1, LEF1, NR3C2, PAR1, PHF6; deletions of- NF1, SUZ12, MTAP) that significantly correlated with the status of MRD clearance. The CNAs detected by dMLPA were validated by conventional MLPA and showed high concordance (r = 0.99). Our results demonstrated dMLPA to be a robust and reliable alternative for rapid detection of key CNAs in newly diagnosed ALL patients. Integration of ploidy status and CNAs detected by dMLPA with cytogenetic and clinical risk factors holds great potential in further refinement of patient risk stratification and response to treatment in ALL.

DOI: 10.3389/fonc.2019.00871
PMCID: PMC6753626
PMID: 31572674

207: Thelengana A, Radhakrishnan DM, Prasad M, Kumar A, Prasad K. Tenecteplase versus alteplase in acute ischemic stroke: systematic review and meta-analysis. Acta Neurol Belg. 2019 Sep;119(3):359-367. doi: 10.1007/s13760-018-0933-9. Epub 2018 May 4. PubMed PMID: 29728903.

Tenecteplase is a product of genetic modification of recombinant tissue plasminogen activator with superior pharmacodynamic and pharmacokinetic properties. This meta-analysis was to determine whether intravenous thrombolysis with tenecteplase in patients with acute ischemic stroke has better efficacy and safety outcomes than with intravenous alteplase. PubMed, Cochrane Central Register of Controlled Trials, WHO International clinical trials registry platform (ICTRP), Australian New Zealand Clinical Trials Registry (ANZCTR), EU Clinical Trials Register (EU-CTR) and ClinicalTrials.gov were searched for trials comparing tenecteplase with alteplase in acute ischemic stroke. Functional outcomes (modified Rankin Scale at 90 days), early major neurological improvement, rates of any intracerebral haemorrhage, symptomatic intracerebral haemorrhage and mortality rate at 90 days were the outcomes compared. Four randomized controlled trials involving 1334 patients were included. The Tenecteplase group compared to the alteplase group had significantly better early major neurological improvement (RR=1.56, 95% CI [1.00, 2.43], p=0.05). There

was no significant difference between tenecteplase and alteplase in excellent functional outcome at 90 days, good functional outcome at 90 days, any intracerebral haemorrhage, symptomatic intracerebral haemorrhage or mortality at 90 days. Our meta-analysis found tenecteplase to be significantly favouring one outcome: early major neurological improvement. Other outcomes did not differ between the tenecteplase and alteplase groups. Trials of cost-effective/benefit analysis comparing tenecteplase versus alteplase and tenecteplase versus endovascular treatment are necessary to reinforce the evidence for the potential cost advantage of tenecteplase.

DOI: 10.1007/s13760-018-0933-9
PMID: 29728903

208: Tripathi M, Tripathi M, Parida GK, Kumar R, Dwivedi S, Nehra A, Bal C. Biomarker-Based Prediction of Progression to Dementia: F-18 FDG-PET in Amnestic MCI. Neurol India. 2019 Sep-Oct;67(5):1310-1317. doi: 10.4103/0028-3886.271245. PubMed PMID: 31744965.

Background: Metabolic patterns on brain F-18 fluorodeoxyglucose (FDG) positron emission tomography (PET) can predict the decline in amnestic mild cognitive impairment (aMCI) to Alzheimer's disease dementia (AD) or other dementias.
Objective: This study was undertaken to evaluate the diagnostic accuracy of baseline F-18 FDG-PET in aMCI for predicting conversion to AD or other dementias on follow-up.
Patients and Methods: A total of 87 patients with aMCI were enrolled in the study. Each patient underwent a detailed clinical and neuropsychological examination and FDG-PET at baseline. Each PET scan was visually classified based on predefined dementia patterns. Automated analysis of FDG PET was performed using Cortex ID (GE Healthcare). The mean follow-up duration was 30.4 ± 9.3 months (range: 18-48 months). Diagnosis of dementia at follow-up (obtained using clinical diagnostic criteria) constituted the reference standard, and all the included aMCI patients were divided into two groups: the aMCI converters (MCI-C) and MCI nonconverters (MCI-NC). Diagnostic accuracy of FDG PET was calculated using this reference standard.
Results: There were 23 MCI-C and 64 MCI-NC. Of the 23 MCI-C, 19 were diagnosed as probable AD, 1 as frontotemporal demetia (FTD), and 3 as vascular dementia (VD). Of the 64 MCI-NC, 9 had subjective improvement in cognition, and 55 remained stable. The conversion rate for all types of dementia in our series was 26.4% (23/87) and for Alzheimer's type dementia was 21.8% (19/87). The of PET-based visual interpretation was 91.9%. Sensitivity, specificity, positive predictive value, and negative predictive value for FDG-PET-based prediction of dementia conversion were 86.9% [confidence interval (CI) 66.4%-97.2%)], 93.7% (CI 84.7%-98.2%), 83.3% (CI 65.6%-92.9%), and 95.2% (CI 87.4%-98.9%), respectively. Kappa for agreement between visual and Cortex ID was 0.94 indicating excellent agreement. In the three aMCI patients progressing to VD, no specific abnormality in metabolic pattern was noted; however, there was marked cortical atrophy on computed tomography.
Conclusion: FDG-PET-based visual and cortex ID classification has a good accuracy in predicting progression to dementia including AD in the prodromal aMCI phase. Absence of typical metabolic patterns on FDG-PET can play an important exclusionary role for progression to dementia. Vascular cognitive impairment with cerebral atrophy needs further studies to confirm and uncover potential mechanisms.

DOI: 10.4103/0028-3886.271245
PMID: 31744965

209: Tripathy S, Aggrawal S, Subudhi K, Kumar R, Narwal A. Calcitonin-Negative Neuroendocrine Tumor of the Thyroid on 68Ga DOTANOC PET-CT. Clin Nucl Med. 2019 Sep;44(9):e546-e547. doi: 10.1097/RLU.0000000000002698. PubMed PMID: 31283604.

Neuroendocrine tumors (NETs) of the thyroid gland are generally considered to be derived from parafollicular endocrine or C cells and are known as medullary thyroid carcinomas. Non-calcitonin-producing NETs of the thyroid are extremely rare in occurrence and pose a significant diagnostic dilemma for the physician and pathologist. We describe a case of a 58-year-old woman who was diagnosed as having primary NET thyroid with normal calcitonin levels and Ga DOTANOC PET-CT scan findings which were done for initial extent evaluation of the disease.

DOI: 10.1097/RLU.0000000000002698
PMID: 31283604 [Indexed for MEDLINE]

210: Tripathy S, Naswa N, Jha P, Reddy S, Parida GK. Ileal Neuroendocrine Tumor With Bilateral Breast and Ovarian Metastases: Findings on 68Ga-DOTANOC PET/CT Scan. Clin Nucl Med. 2019 Sep;44(9):e532-e534. doi: 10.1097/RLU.0000000000002685. PubMed PMID: 31274557.

Metastasis to the breast is a rare occurrence and constitutes less than 2% of all breast tumors. Similarly, ovarian metastases from neuroendocrine tumors are also uncommon, and if the adnexal masses are bilateral, then the chances of it being metastatic rather than being primary range from 88% to 94%. We present a case of 61-year-old woman who in the course of workup for abdominal pain and diarrhea was eventually diagnosed as ileal neuroendocrine tumor with breast, ovarian, and lymph nodal metastases on Ga-DOTANOC PET/CT scan.

DOI: 10.1097/RLU.0000000000002685
PMID: 31274557 [Indexed for MEDLINE]

211: Tyagi A, Pramanik R, Bakhshi R, Vishnubhatla S, Bakhshi S. Genetic Landscape of Mitochondrial Regulatory Region in Pediatric Acute Myeloid Leukemia: Changes from Diagnosis to Relapse. J Pediatr Genet. 2019 Dec;8(4):193-197. doi: 10.1055/s-0039-1696976. Epub 2019 Sep 12. PubMed PMID: 31687256; PubMed Central PMCID: PMC6824899.

This prospective study aimed to compare the pattern of mitochondrial deoxyribonucleic acid D-loop (mt-DNA D-loop) variations in 41 paired samples of de novo pediatric acute myeloid leukemia (AML) (baseline vs. relapse) patients by Sanger's sequencing. Mean mt-DNA D-loop variation was 10.1 at baseline as compared with 9.4 per patients at relapse. In our study, 28 (68.3%) patients showed change in number of variations from baseline to relapse, 11 (26.8%) patients showed increase, 17 (41.6%) patients showed decrease, and 7 (17.1%) patients who suffered a relapse had a gain at position T489C. No statistically significant difference was observed in the mutation profile of mt-DNA D-loop region from baseline to relapse in the evaluated population of pediatric AML.

DOI: 10.1055/s-0039-1696976
PMCID: PMC6824899 [Available on 2020-12-01]
PMID: 31687256

212: Varshney S, Khadgawat R, Gahlot M, Khandelwal D, Oberoi AK, Yadav RK, Sreenivas V, Gupta N, Tandon N. Effect of High-dose Vitamin D Supplementation on Beta Cell Function in Obese Asian-Indian Children and Adolescents: A Randomized, Double Blind, Active Controlled Study. Indian J Endocrinol Metab. 2019 Sep-Oct;23(5):545-551. doi: 10.4103/ijem.IJEM_159_19. PubMed PMID: 31803595; PubMed Central PMCID: PMC6873255.

Objective: Vitamin D deficiency has been found to be associated with insulin resistance. In an attempt to explore this association, we planned a study to investigate the effects of high-dose vitamin D supplementation on beta cell function in obese children and adolescents.
Methods: A randomized, double blind, active-controlled study was carried out to investigate the effects of high dose (120,000 IU once a month) vitamin D supplementation in comparison to recommended daily allowance (12,000 IU/month) for 12 months. Beta cell function was assessed by disposition index. Inflammatory cytokines and cardiovascular risk factors were also assessed before and after supplementation.
Results: A total of 189 obese children and adolescents were recruited. The mean serum 25OHD level of the study population was 8.36 ± 5.45 ng/ml. At baseline, 94.7% subjects were vitamin D deficient (<20 ng/mL). After 12 months of supplementation, serum 25OHD level in intervention group was 26.89 ± 12.23 ng/mL, while in control group, it was 13.14 ± 4.67 ng/mL ($P < 0.001$). No significant difference in disposition index as well as other parameters of insulin resistance, sensitivity, inflammatory cytokines, and pulse wave velocity was seen after supplementation.
Conclusion: Vitamin D supplementation in doses of 120,000 IU per month for 12 months in obese Asian-Indian children and adolescents did not affect beta cell function as well as cardiovascular risk factors.

DOI: 10.4103/ijem.IJEM_159_19
PMCID: PMC6873255
PMID: 31803595

213: Venkatraman A, Nandy R, Rao SS, Mehta DH, Viswanathan A, Jayasundar R. Tantra and Modern Neurosciences: Is there any Correlation? Neurol India. 2019 Sep-Oct;67(5):1188-1193. doi: 10.4103/0028-3886.271263. PubMed PMID: 31744942.

Background and Aims: Many studies have conclusively proven that meditative techniques derived from the Indian systems of philosophy, meditation and ritual classified as "Tantra" can bring about sustained changes in the structure and function of the nervous system of practitioners. The aim of this study is to provide neuroscientists a framework through which to interpret Tantra, and thereby provide a foundation upon which future interdisciplinary study can be built.
Methods: We juxtapose Tantric concepts such as the subtle body, nadis and mantras with relevant neuroscientific findings. Our premise is that through sustained

internalization of attention, Tantric practitioners were able to identify and document subtle changes in their field of awareness, which usually do not cross the threshold to come into our perception.
Results: The descriptions left by Tantric philosophers are often detailed and empirical, but they are about subjective phenomena, rather than external objects. They also focus on individual experiences, rather than the group-level analyses favored by modern medical science.
Conclusion: Systematic exploration of Tantric texts can be of tremendous value in expanding our understanding of human beings' experiential reality, by enabling us to build bridges between first-person and third-person approaches to the nervous system. This may open up new avenues for cognitive enhancement and treating neurological diseases.

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Conflict of interest statement: None

214: Vig S, Bhan S, Ahuja D, Gupta N, Kumar V, Kumar S, Bharati SJ. Serratus Anterior Plane Block for Post-Thoracotomy Analgesia: a Novel Technique for the Surgeon and Anaesthetist. Indian J Surg Oncol. 2019 Sep;10(3):535-539. doi: 10.1007/s13193-019-00937-2. Epub 2019 Jun 21. PubMed PMID: 31496606; PubMed Central PMCID: PMC6708008.

Post-thoracotomy pain is one of the most severe forms of post-operative pain. Anaesthetists usually manage post-thoracotomy pain with an epidural or paravertebral block. However, both of these techniques have their limitations. Ultrasound-guided interfascial plane block like serratus anterior plane block is a new concept and is proposed to provide analgesia to the hemithorax. We report our experience with 10 thoracotomy cases where this block was used as a post-operative analgesic technique. Patients undergoing pulmonary metastasectomy or lobectomy received ultrasound-guided serratus anterior plane block between the serratus anterior and the external intercostal muscles with 0.25% ropivacaine, and a catheter was inserted. Post-operatively, 0.125% ropivacaine with fentanyl (1 mcg/ml) was given as infusion at 5-7 ml/h. Other analgesics were paracetamol and diclofenac. Fentanyl infusion at 0.25 mcg/kg/h was the rescue analgesic if pain persisted. Four out of 10 patients required fentanyl infusion. Uncontrolled pain in two of these patients was at the intercostal drain site; in the third patient, two ribs were resected; and in the 4th patient, there was poor drug spread and the catheter could not be placed in the desired plane due to poor muscle mass. The catheter was kept in situ for a minimum of 48 h to a maximum of 6 days after surgery. Serratus anterior block could be an attractive option for post-thoracotomy analgesia. Further studies can take the help of the surgeon for catheter placement in the desired plane at the time of wound closure to ensure adequate drug spread.

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215: Vinchure OS, Sharma V, Tabasum S, Ghosh S, Singh RP, Sarkar C, Kulshreshtha R. Polycomb complex mediated epigenetic reprogramming alters TGF-Î² signaling via a novel EZH2/miR-490/TGIF2 axis thereby inducing migration and EMT potential in

glioblastomas. Int J Cancer. 2019 Sep 1;145(5):1254-1269. doi: 10.1002/ijc.32360. Epub 2019 May 10. PubMed PMID: 31008529.

Recent advancement in understanding cancer etiology has highlighted epigenetic deregulation as an important phenomenon leading to poor prognosis in glioblastoma (GBM). Polycomb repressive complex 2 (PRC2) is one such important epigenetic modifier reportedly altered in GBM. However, its defined mechanism in tumorigenesis still remains elusive. In present study, we analyzed our in-house ChIPseq data for H3k27me3 modified miRNAs and identified miR-490-3p to be the most common target in GBM with significantly downregulated expression in glioma patients in both TCGA and GBM patient cohort. Our functional analysis delineates for the first time, a central role of PRC2 catalytic unit EZH2 in directly regulating expression of this miRNA and its host gene CHRM2 in GBM. In accordance, cell line treatment with EZH2 siRNA and 5-azacytidine also confirmed its coregulation by CpG and histone methylation based epigenetic mechanisms. Furthermore, induced overexpression of miR-490-3p in GBM cell lines significantly inhibited key hallmarks including cellular proliferation, colony formation and spheroid formation, as well as epithelial-to-mesenchymal transition (EMT), with downregulation of multiple EMT transcription factors and promigratory genes (MMP9, CCL5, PIK3R1, ICAM1, ADAM17 and NOTCH1). We also for the first time report TGFBR1 and TGIF2 as two direct downstream effector targets of miR-490-3p that are also deregulated in GBM. TGIF2, a novel target, was shown to promote migration and EMT that could partially be rescued by miR-490-3p overexpression. Overall, this stands as a first study that provides a direct link between epigenetic modulator EZH2 and oncogenic TGF-β signaling involving novel miR-490-3p/TGIF2/TGFBR1 axis, that being targetable might be promising in developing new therapeutic intervention strategies for GBM.

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216: Wundavalli L, Kumar P, Dutta S. Workload Indicators of Staffing Need as a tool to determine nurse staffing for a high volume academic Emergency Department: An observational study. Int Emerg Nurs. 2019 Sep;46:100780. doi: 10.1016/j.ienj.2019.06.003. Epub 2019 Jul 19. PubMed PMID: 31331837.

INTRODUCTION: Determination of staffing requirement for an Emergency Department (ED) is often difficult due to random arrivals of a complex mix of cases, fluctuating volumes and lengths of stay. Most staffing strategies are based on patient census, lengths of stay, patient dependency or patient classification systems. However, the actual quantity of workload is seldom employed as a basis to calculate staffing.
AIM: The aim of this study was to determine the requirement of nurses for a high volume academic ED and to suggest measures to optimally schedule them.
METHODOLOGY: Structured interviews were held with ED nurses to list their health service activities, support and additional activities. Time taken for the activities was calculated based on observations and interviews. Records were perused to obtain annual service statistics. Workload Indicators of Staffing Need (WISN) described by World Health Organization was utilized to analyze and determine staffing need.
RESULTS: The study identified 34 health service activities, 21 support activities

and 3 additional activities to be performed by 125 nurses with a total available working time of 187,250 h for an annual volume of 105,103 patients. The WISN ratio was 0.90 which indicates that the current staff strength was inadequate. The Emergency Department requires 13 more full time staff nurses for it to function optimally. In case of reallocation of certain relevant duties to phlebotomists or nursing assistants, the requirement of staff nurses is 102. Consequently, a skill mix ratio of 82% nurses to 18% nursing assistants and phlebotomists is suggested.
DISCUSSION: The Workload Indicators of Staffing Need is a simple, easy to use method that can prospectively measure direct and indirect nursing activities and translate workload into nursing full time equivalents for the ED. This method is also useful to identify activities that do not require nursing professional skills and prescribe the skill mix of staff.

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217: Yadav M, Popli K, Bisoi AK, Chouhan S. Masson's Hemangioma Mimicking As Leaking Aortic Pseudoaneurysm: An Extremely Rare Presentation. Aorta (Stamford). 2019 Apr;7(2):59-62. doi: 10.1055/s-0039-1688925. Epub 2019 Sep 17. PubMed PMID: 31529430; PubMed Central PMCID: PMC6748851.

Intravascular papillary endothelial hyperplasia or Masson's tumor is a rare reactive disease of vascular origin characterized by exuberant proliferation of endothelial cells. Its importance lies in its ability to mimic a variety of diseases, both benign and malignant. Here, we present a unique case of Masson's tumor arising from the abdominal supraceliac aorta in a 32-year-old man initially misdiagnosed as leaking aortic pseudoaneurysm.

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218: Yadav S, Thakur S, Kohlhase J, Bhari N, Kabra M, Gupta N. Report of Two Novel Mutations in Indian Patients with Rothmund-Thomson Syndrome. J Pediatr Genet. 2019 Sep;8(3):163-167. doi: 10.1055/s-0039-1684017. Epub 2019 Apr 9. PubMed PMID: 31406625; PubMed Central PMCID: PMC6688877.

Rothmund-Thomson syndrome (RTS) is a rare autosomal recessive disorder caused by mutations in RECQL4 and has characteristic clinical features. We report two unrelated phenotypically diverse patients (cases 1 and 2) with RTS having novel variants in RECQL4 gene . Case-1 was evaluated for poor growth and recurrent fractures and skin lesions. Case-2 presented at 4 months with failure to thrive and radial ray defect and developed poikilodermatous skin lesions after infancy. Both cases were confirmed to have homozygous pathogenic variants in RECQL4 . Both patients have normal intellect and are on supportive therapy. The presence of characteristic poikiloderma lesions with specific distribution and skeletal anomalies in a patient with proportionate short stature is a clue toward the diagnosis of RTS.

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219: Zileli M, Borkar SA, Sinha S, Reinas R, Alves Ã"L, Kim SH, Pawar S, Murali B,
Parthiban J. Cervical Spondylotic Myelopathy: Natural Course and the Value of Diagnostic Techniques -WFNS Spine Committee Recommendations. Neurospine. 2019 Sep;16(3):386-402. doi: 10.14245/ns.1938240.120. Epub 2019 Sep 30. PubMed PMID: 31607071; PubMed Central PMCID: PMC6790728.

OBJECTIVE: This study presents the results of a systematic literature review conducted to determine most up-to-date information on the natural outcome of cervical spondylotic myelopathy (CSM) and the most reliable diagnostic techniques.
METHODS: A literature search was performed for articles published during the last 10 years.
RESULTS: The natural course of patients with cervical stenosis and signs of myelopathy is quite variable. In patients with no symptoms, but significant stenosis, the risk of developing myelopathy with cervical stenosis is approximately 3% per year. Myelopathic signs are useful for the clinical diagnosis of CSM. However, they are not highly sensitive and may be absent in approximately one-fifth of patients with myelopathy. The electrophysiological tests to be used in CSM patients are motor evoked potential (MEP), spinal cord evoked potential, somatosensory evoked potential, and electromyography (EMG). The differential diagnosis of CSM from other neurological conditions can be accomplished by those tests. MEP and EMG monitoring are useful to reduce C5 root palsy during CSM surgery. Notable spinal cord T2 hyperintensity on cervical magnetic resonance imaging (MRI) is correlated with a worse outcome, whereas lighter signal changes may predict better outcomes. T1 hypointensity should be considered a sign of more advanced disease.
CONCLUSION: The natural course of CSM is quite variable. Signal changes on MRI and some electrophysiological tests are valuable adjuncts to diagnosis.

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