
# List of publications of AIIMS, New Delhi for the month of November, 2018 [Source: www.pubmed.com].

1: Agashe S, Walia T, Tikka DL, Das B, Ram D, Tikka SK. An Indian, Comic-based, Online-EEG Paradigm for Theory of Mind: An Exploratory, Pilot Study on Schizophrenia Patients. Indian J Psychol Med. 2018 Nov-Dec;40(6):568-573. doi: 10.4103/IJPSYM.IJPSYM_238_18. PubMed PMID: 30533954; PubMed Central PMCID: PMC6241195.

Background: False-belief (FB) tasks are used to assess the theory of mind (ToM) functioning, which has been found to be impaired in schizophrenia. FB task stimuli used so far in neuroimaging studies in schizophrenia have been sentence-based ones. We aimed to validate an Indian, colour-comic based FB task by using an online-electroencephalogram (EEG) paradigm discriminating schizophrenia patients and healthy controls.
Materials and Methods: Fifteen schizophrenia patients and 15 healthy controls performed online FB task during a 256-channel-EEG recording. 'Content' and 'known-groups' validity were examined using offline behavioural measures. Evoked gamma spectral-power in four regions of interest (ROIs) was compared between groups. Social functioning was also assessed.
Results: Strength of classifying the groups was significant for both the number of correct responses and the reaction-times on the FB tasks. Social functioning was found to be poorer in patients. On the comparative analysis of evoked gamma spectral-power in the ROIs, very small effect size and observed power were noted.
Conclusion: 'Content' and 'known-groups' validity of the culturally undermined comic-based FB task are good. Our findings reiterate that ToM functioning is impaired in schizophrenia. Our results were inconclusive in inferring whether

2: Agrawal SK, Chaudhry R, Gupta N, Arif N, Bhadur T. Decreasing trend of seroprevalence of leptospirosis at All India Institute of Medical Sciences New Delhi: 2014-2018. J Family Med Prim Care. 2018 Nov-Dec;7(6):1425-1428. doi: 10.4103/jfmpc.jfmpc_198_18. PubMed PMID: 30613536; PubMed Central PMCID: PMC6293953.

Background: Leptospirosis is an important emerging public health problem in India. There is limited information regarding the seroprevalence of leptospirosis in population from northern states of India. This study reports result of a 4-year-retrospective sero-epidemiological survey of leptospirosis conducted in a teaching tertiary care hospital in New Delhi, India. The aim of our study was to explore seroprevalence and clinical pattern of disease occurrence in suspected cases of leptospirosis and to search for any co-existing infections in northern areas such as New Delhi, India.
Methods: The patients with clinically suspected leptospirosis who attended outpatient or admitted to the Departments of Medicine, Gastroenterology, Pediatrics and Neurology, etc. of our hospital were retrospectively analyzed. The qualitative determination of anti-leptospira-specific immunoglobulin (IgM) antibodies was carried out using commercially available enzyme-linked immunosorbent assay (ELISA) kit (Panbio Diagnostics, Brisbane, Australia).
Results: Of these 1545 patients, 6.47% (100/1545) were seropositive for anti-leptospira-specific immunoglobulin (IgM) antibodies. Using modified Faine's criteria, a diagnosis of presumptive and possible leptospirosis was made in 79/100 (79%) and 21/100 (21%) patients. Significant declining trend of seroprevalence rate of leptospirosis from 26.90% in 2000-2010 and 20% in 2011-2014 to 6.47% in 2014-2018 (P value <0.05) in our referral tertiary care center. Seventeen patients showed co-infection with other common pathogen prevailing locally.
Conclusion: There is a need to increase awareness among public and clinicians, however, more region/province-wise studies on seroprevalence of leptospirosis are required to improve our understanding of the actual burden.

3: Ahmad F, Kannan M, Obser T, Budde U, Schneppenheim S, Saxena R, Schneppenheim R. Characterization of VWF gene conversions causing von Willebrand disease. Br J Haematol. 2019 Mar;184(5):817-825. doi: 10.1111/bjh.15709. Epub 2018 Nov 29. PubMed PMID: 30488424.

We previously reported that von Willebrand Factor gene (VWF) conversions are a relatively frequent cause of von Willebrand disease (VWD), however, their molecular pathomechanisms resulting in variant phenotypes is largely unknown. Here, we characterized VWF conversions harbouring missense and synonymous mutations, through generating a series of mutant constructs followed by transient expression in 293 cells, and qualitative and quantitative analysis of recombinant VWF (rVWF). The characterization of mutant rVWF showed the critical roles of synonymous variants in the pathogenicity of VWF conversions. The gene conversion variants p.Val1229Gly, p.Asn1231Thr, p.Asn1231Ser and p.Ala1464Pro in the absence of synonymous p.Ser1263= and p.Gln1449= showed minimal effect on rVWF synthesis and activity. Interestingly, a construct including the synonymous variants displayed significantly low rVWF expression and activity. The variant p.Pro1266Leu showed gain of rVWF function toward glycoprotein Ibα; surprisingly, this function was significantly abolished in the presence of gene conversion variants p.Val1229Gly-p.Asn1231Thr. Taken together, our expression studies suggest that synonymous variants in the combination of other gene conversion variants suppress the protein expression, possibly due to defective primary mRNA structure or processing. The variants p.Val1229Gly-p.Asn1231Thr affected the VWF gain of function caused by variant p.Pro1266Leu, probably due to conformational changes in VWF.

4: Ahmad H, Kumar VL. Pharmacotherapy of ulcerative colitis - current status and emerging trends. J Basic Clin Physiol Pharmacol. 2018 Nov 27;29(6):581-592. doi: 10.1515/jbcpp-2016-0014. Review. PubMed PMID: 30089097.

Ulcerative colitis (UC) is a chronic mucosal inflammation of the large intestine restricted to the rectum and colon. Its clinical course follows an intermittent pattern with episodes of relapse, followed by remission and eventually resulting in mucosal damage. Although there is no permanent cure for UC, the currently available pharmacotherapy aims to induce and maintain clinical remission, promote the healing of colonic mucosa and avert any surgical intervention. The conventional drug therapy comprising of 5-aminosalicylates, thiopurines and corticosteroids has advanced recently in terms of formulations and dosing schedule, resulting in improved efficacy, safety and compliance. Calcineurin inhibitors, such as cyclosporin and tacrolimus, have emerged as steroid sparing agents. The treatment paradigm of UC patients who are refractory to conventional drugs has changed in view of the availability of biologics. Currently, there are four biologics approved by the US FDA for the treatment of UC, namely, infliximab, adalimumab, golimumab and vedolizumab, and several others are undergoing clinical trial. In this comprehensive review, the advantages and limitations of the medical therapy of UC are elaborated with an emphasis on the pharmacokinetic and pharmacodynamic aspects of the drugs.

5: Angmo D, Selvan H, Behera AK, Suman PK. Unilateral corneal edema in young: A diagnostic dilemma. Indian J Ophthalmol. 2018 Nov;66(11):1612-1614. doi: 10.4103/ijo.IJO_564_18. PubMed PMID: 30355874; PubMed Central PMCID: PMC6213689.

AIMS: To assess the cardiovascular (CV) safety of oral semaglutide, the first tablet formulation of a glucagon-like peptide-1 receptor agonist.
MATERIALS AND METHODS: PIONEER 6 is a multinational, randomized, placebo-controlled, double-blind trial in patients with type 2 diabetes at high risk of CV events (defined as being aged ≥50 years and having established CV disease [CVD] or moderate [stage 3] chronic kidney disease [CKD], or being aged ≥60 years with ≥1 other CV risk factor). Patients were randomized to once-daily oral semaglutide (up to 14 mg) or placebo added to standard of care. The primary composite endpoint is time to first occurrence of CV death or non-fatal myocardial infarction or non-fatal stroke. The primary hypothesis was to exclude an excess in CV risk with oral semaglutide by assessing non-inferiority versus placebo for the primary endpoint (non-inferiority margin of 1.8 for the upper boundary of the 95% confidence interval of the hazard ratio). PIONEER 6 is event-driven, with follow-up continuing until accrual of at least 122 primary outcome events. There is no pre-defined minimal duration.

RESULTS: Overall, 3183 patients have been enrolled (mean age 66.1 years, 31.6% females) in 214 sites across 21 countries. At baseline, the mean duration of diabetes was 14.9 years, mean glycated haemoglobin concentration was 66 mmol/mol (8.2%), and 84.6% of patients had established CVD/moderate CKD.
CONCLUSIONS: PIONEER 6 will provide evidence regarding the CV safety of oral semaglutide in patients with type 2 diabetes and high CV risk.

6: Bain SC, Mosenzon O, Arechavaleta R, BogdaÅ„ski P, Comlekci A, Consoli A, Deerochanawong C, Dungan K, Faingold MC, Farkouh ME, Franco DR, Gram J, Guja C, Joshi P, Malek R, Merino-Torres JF, Nauck MA, Pedersen SD, Sheu WH, Silver RJ, Tack CJ, Tandon N, Jeppesen OK, Strange M, Thomsen M, Husain M. Cardiovascular safety of oral semaglutide in patients with type 2 diabetes: Rationale, design and patient baseline characteristics for the PIONEER 6 trial. Diabetes Obes Metab. 2019 Mar;21(3):499-508. doi: 10.1111/dom.13553. Epub 2018 Nov 11. PubMed PMID: 30284349.

7: Biswal SK, Mittal S, Hadda V, Mohan A, Khilnani GC, Pandey RM, Guleria R, Madan K. 1% versus 2% lignocaine for airway anesthesia in endobronchial ultrasound-guided transbronchial needle aspiration: A pilot, double-blind, randomized controlled trial. Lung India. 2018 Nov-Dec;35(6):467-471. doi: 10.4103/lungindia.lungindia_148_18. PubMed PMID: 30381554; PubMed Central PMCID: PMC6219128.

Background and Objectives: No previous study has compared different concentrations of lignocaine for topical anesthesia during endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA). In this pilot study, we compared 1% versus 2% lignocaine for topical airway anesthesia during EBUS-TBNA.
Methods: In this double-blind, randomized trial, subjects were randomized to receive either 1% or 2% lignocaine for "spray-as-you-go" administration. All received combined moderate intravenous sedation (midazolam and fentanyl). Ten percent pharyngeal lignocaine spray (two sprays) and nebulized lignocaine (2.5 ml of 4% solution) were administered to all subjects. Administration of additional lignocaine was allowed at operator's discretion. The primary endpoints were operator-rated overall procedural satisfaction and cough, each assessed on visual analog scale (VAS), while the secondary outcomes included patient-rated faces pain scale scores, cumulative lignocaine dose, number of subjects receiving lignocaine >8.2 mg/kg, doses of midazolam/fentanyl between groups, and adverse events during procedure.
Results: The mean (standard deviation [SD]) VAS scores for operator-rated procedure satisfaction were 64.2 (25.6) and 68.7 (23.7) in 1% and 2% group, respectively (P = 0.35). The median (interquartile range) VAS scores for operator-rated cough were 48.4 (23.9-69.9) in 1% group and 38.7 (18.6-69.5) in 2% group (P = 0.24). The mean [SD] cumulative lignocaine received in the 2% lignocaine group (248.6 [29.1] mg) was significantly greater than in 1% lignocaine group (178.5 [14.6] mg) (P < 0.01).
Conclusion: One percent lignocaine is equally efficacious as 2% lignocaine for topical anesthesia during EBUS-TBNA, at a significantly lower cumulative lignocaine dose.

8: Biswas S, Ray A, Fazal F, Mahajan S. Toxic shock syndrome: the great masquerader. BMJ Case Rep. 2018 Nov 28;11(1). pii: e226123. doi: 10.1136/bcr-2018-226123. PubMed PMID: 30567096.

Toxic shock syndrome is a rare but potentially lethal toxin-mediated illness that can be caused by streptococcal and staphylococcal species. It initially presents as a febrile illness that rapidly progresses to multiorgan dysfunction, hence a high index of suspicion coupled with rapid verification of the diagnosis and aggressive treatment is required to improve the outcome of the disease. A 23-year-old man presented with high-grade fever associated with headache, retro-orbital pain, gastroenteritis and gum bleeds. Treatment was initiated

keeping in mind the possibility of dengue haemorrhagic fever. However, further clinical deterioration led us to re-examine our patient, revealing an old neglected wound. Microbiological confirmation of methicillin-resistant Staphylococcus aureus from the wound swab and prompt institution of appropriate treatment led to a favourable outcome in a case known to be associated with serious morbidity and mortality.

9: Bodwal J, Kumar Sikary A, Chauhan M, Behera C. Request for euthanasia in the suicide note of a planned suicide. Med Leg J. 2018 Nov 29:25817218789826. doi: 10.1177/0025817218789826. [Epub ahead of print] PubMed PMID: 30489203.

This case is of a suicide victim who purchased various drugs online using forged prescriptions after detailed research about the drugs to commit suicide. He left a suicide note giving details of his suicide methods and the reasons for it. He also denied any treatment and asked for euthanasia if he survived and remained in a vegetative state.

10: Bohora S, Vora A, Kapoor A, Arora V, Naik N, Selvaraj R, Namboodiri N, Saxena A, Naik A, Singh B, Narsimhan C, Nair M, Kler TS; Working committee; Indian Heart Rhythm Society (IHRS). Consensus statement for implantation and follow-up of cardiac implantable electronic devices in India. Indian Pacing Electrophysiol J. 2018 Nov - Dec;18(6):188-192. doi: 10.1016/j.ipej.2018.10.006. Epub 2018 Nov 2. PubMed PMID: 30391596; PubMed Central PMCID: PMC6303166.

Cardiac implantable electronic device (CIED) procedures are being done by many operators/centers and it is projected that this therapy will remarkably increase in India in the coming years. This document by IHRS, aims at guiding the Indian medical community in the appropriate use and method of implantation with emphasis on implanter training and center preparedness to deliver a safe and effective therapy to patients with cardiac rhythm disorders and heart failure.

11: Braun DA, Shril S, Sinha A, Schneider R, Tan W, Ashraf S, Hermle T, Jobst-Schwan T, Widmeier E, Majmundar AJ, Daga A, Warejko JK, Nakayama M, Schapiro D, Chen J, Airik M, Rao J, Schmidt JM, Hoogstraten CA, Hugo H, Meena J, Lek M, Laricchia KM, Bagga A, Hildebrandt F. Mutations in WDR4 as a new cause of Galloway-Mowat syndrome. Am J Med Genet A. 2018 Nov;176(11):2460-2465. doi: 10.1002/ajmg.a.40489. Epub 2018 Aug 6. PubMed PMID: 30079490; PubMed Central PMCID: PMC6289609.

Galloway-Mowat syndrome (GAMOS) is a phenotypically heterogeneous disorder characterized by neurodevelopmental defects combined with renal-glomerular disease, manifesting with proteinuria. To identify additional monogenic disease causes, we here performed whole exome sequencing (WES), linkage analysis, and homozygosity mapping in three affected siblings of an Indian family with GAMOS. Applying established criteria for variant filtering, we identify a novel homozygous splice site mutation in the gene WDR4 as the likely disease-causing mutation in this family. In line with previous reports, we observe growth deficiency, microcephaly, developmental delay, and intellectual disability as phenotypic features resulting from WDR4 mutations. However, the newly identified allele additionally gives rise to proteinuria and nephrotic syndrome, a phenotype that was never reported in patients with WDR4 mutations. Our data thus expand the phenotypic spectrum of WDR4 mutations by demonstrating that, depending on the specific mutated allele, a renal phenotype may be present. This finding suggests that GAMOS may occupy a phenotypic spectrum with other microcephalic diseases. Furthermore, WDR4 is an additional example of a gene that encodes a tRNA modifying enzyme and gives rise to GAMOS, if mutated. Our findings thereby support the recent observation that, like neurons, podocytes of the renal glomerulus are particularly vulnerable to cellular defects resulting from altered tRNA modifications.

12: Brijwal M, Rawre J, Dhawan B, Khanna N, Choudhary A, Dar L. HSV-1 genital ulcer disease at a tertiary care hospital in north India. Clin Infect Dis. 2018

Nov 1. doi: 10.1093/cid/ciy943. [Epub ahead of print] PubMed PMID: 30388201.

13: Chandra PS, Subianto H, Bajaj J, Girishan S, Doddamani R, Ramanujam B, Chouhan MS, Garg A, Tripathi M, Bal CS, Sarkar C, Dwivedi R, Sapra S, Tripathi M. Endoscope-assisted (with robotic guidance and using a hybrid technique) interhemispheric transcallosal hemispherotomy: a comparative study with open hemispherotomy to evaluate efficacy, complications, and outcome. J Neurosurg Pediatr. 2018 Nov 9;23(2):187-197. doi: 10.3171/2018.8.PEDS18131. PubMed PMID: 30497135.

OBJECTIVEEndoscope-assisted hemispherotomy (EH) has emerged as a good alternative option for hemispheric pathologies with drug-resistant epilepsy.METHODSThis was a prospective observational study. Parameters measured included primary outcome measures (frequency, severity of seizures) and secondary outcomes (cognition, behavior, and quality of life). Blood loss, operating time, complications, and hospital stay were also taken into account. A comparison was made between the open hemispherotomy (OH) and endoscopic techniques performed by the senior author.RESULTSOf 59 cases (42 males), 27 underwent OH (8 periinsular, the rest vertical) and 32 received EH. The mean age was 8.65 ± 5.41 years (EH: 8.6 ± 5.3 years; OH: 8.6 ± 5.7 years). Seizure frequency per day was 7 ± 5.9 (EH: 7.3 ± 4.6; OH: 15.0 ± 6.2). Duration of disease (years since first episode) was 3.92 ± 1.24 years (EH: 5.2 ± 4.3; OH: 5.8 ± 4.5 years). Number of antiepileptic drugs per patient was 3.9 ± 1.2 (EH: 4.2 ± 1.2; OH: 3.8 ± 0.98). Values for the foregoing variables are expressed as the mean ± SD. Pathologies included the following: postinfarct encephalomalacia in 19 (EH: 11); Rasmussen's syndrome in 14 (EH: 7); hemimegalencephaly in 12 (EH: 7); hemispheric cortical dysplasia in 7 (EH: 4); postencephalitis sequelae in 6 (EH: 2); and Sturge-Weber syndrome in 1 (EH: 1). The mean follow-up was 40.16 ± 17.3 months. Thirty-nine of 49 (79.6%) had favorable outcomes (International League Against Epilepsy class I and II): in EH the total was 19/23 (82.6%) and in OH it was 20/26 (76.9%). There was no difference in the primary outcome between EH and OH ($p = 0.15$). Significant improvement was seen in the behavioral/quality of life performance, but not in IQ scores in both EH and OH ($p < 0.01$, no intergroup difference). Blood loss ($p = 0.02$) and hospital stay ($p = 0.049$) were less in EH.CONCLUSIONSEH was as effective as the open procedure in terms of primary and secondary outcomes. It also resulted in less blood loss and a shorter postoperative hospital stay.

14: Chowdhury T, Singh GP, Zeiler FA, Hailu A, Loewen H, Schaller B, Cappellani RB, West M. Anesthesia for Awake Craniotomy for Brain Tumors in an Intraoperative MRI Suite: Challenges and Evidence. Front Oncol. 2018 Nov 14;8:519. doi: 10.3389/fonc.2018.00519. eCollection 2018. PubMed PMID: 30488018; PubMed Central PMCID: PMC6246734.

15: Dalai R, Malhotra S, Gupta AK, Mandal M, Kant S. A rare case of childhood Hepatitis A infection with pleural effusion, acalculous cholecystitis, and ascites. J Family Med Prim Care. 2018 Nov-Dec;7(6):1581-1583. doi: 10.4103/jfmpc.jfmpc_298_18. PubMed PMID: 30613565; PubMed Central PMCID: PMC6293913.

Hepatitis A is common among children of developing nations. Young children with Hepatitis A infection usually have a mild form of the disease. Serious manifestations like pleural effusion and acalculous cholecystitis are very rare in Hepatitis A infection in young children. There have been some reports of these manifestations of childhood Hepatitis A occurring in isolation but for these to co-exist, is extremely rare. In this article a young child with Hepatitis A infection who had all these three manifestations of pleural effusion, acalculous cholecystitis and ascites together, is reported.

16: Dash D, Ihtisham K, Tripathi M, Tripathi M. Proportion and spectrum of movement disorders in adolescent and adult patients of autoimmune encephalitis of non-neoplastic aetiology. J Clin Neurosci. 2019 Jan;59:185-189. doi: 10.1016/j.jocn.2018.10.076. Epub 2018 Nov 16. PubMed PMID: 30455136.

We aimed to study the proportion of patients with movement disorders in seropositive autoimmune encephalitis of non-neoplastic aetiology and also to describe the spectrum of movement disorders in them. We prospectively screened 362 patients of age >12 years with encephalitis of unknown aetiology for a panel of antibodies for autoimmune encephalitis. Demographic and clinical characteristics with focus on the movement disorders were recorded. We also evaluated the differences in the spectrum of movement disorder based on various age groups and antibody positivity. Patients were treated with immune modulating drugs and were followed up for 6 months. Out of the 41 patients, 21 (51.2%) patients presented with movement disorder as a part of their clinical presentation. The commonest movement disorder encountered in our cohort was orofaciolingual dyskinesia (OFLD) 57.1% followed by tremor (38.1%), choreoathetosis (33.3%), paroxysmal dyskinesia (23.8%) stereotypies (14.3%), bradykinesia (13.1%), followed by dystonia (13.1%), catatonia (4.7%), neuromyotonia (4.7%) ballism (4.7%), ataxia (4.7%) and stiff person phenotype (4.7%). The hyperkinetic movement disorders were more commonly seen compared to hypokinetic disorders. All patients received immunomodulatory therapy. On follow, 17 (80.1%) patients had good response with total remission of the movement disorder. Four patients did not have total remission but significant improvement in the symptoms after 6 months of follow up. Our study shows that >50% of patients with antibody positive autoimmune encephalitis have movement disorder as a part of their clinical feature. Timely institution of immunotherapy leads to good outcome in majority of patients.

17: Dash D, Pandey S. Movement disorders associated with neuronal antibodies. Acta Neurol Scand. 2019 Feb;139(2):106-117. doi: 10.1111/ane.13039. Epub 2018 Nov 6. PubMed PMID: 30338517.

Movement disorders are one of the common clinical features of neurological disease associated with neuronal antibodies which is a group of potentially reversible disorder. They can present with hypokinetic or hyperkinetic types of involuntary movements and may have other associated neurological symptoms. The spectrum of abnormal movements associated with neuronal antibodies is widening. Some specific phenomenology of movement disorders are likely to give clue about the type of antibody, for instance, presence of paroxysmal dystonia (facio-brachial dystonic seizures) are a pointer toward presence of LGI-1 antibodies, and orofacial lingual dyskinesia is associated with NMDAR associated encephalitis. The presence of specific type of movement disorder allows high suspicion of testing of certain specific type of antibodies. In this review, we have discussed the various antibodies and the spectrum of movement disorder associated with them, highlighting if any distinct movement disorder allows the clinician to suspect type of antibody in a certain clinical context. We have also reviewed the treatment of the movement disorder associated with the neuronal antibodies. Physicians should have high index of suspicion of these disorders, as early institution of treatment options can lead to better outcome.

18: Desai A, Yadav MA, Gupta V, Gupta S. Wavefront analysis to diagnose blunt trauma-induced Weigert ligament dialysis: Isolated peripheral posterior lenticonus. J Cataract Refract Surg. 2018 Nov;44(11):1390-1393. doi: 10.1016/j.jcrs.2018.06.058. Epub 2018 Oct 9. PubMed PMID: 30314753.

A 15-year-old male patient presented with vision loss after blunt trauma to the right eye and with clinical evidence of posterior lenticonus. The posttraumatic lenticonus was eccentric (superotemporal). Irregular astigmatism with high myopia on dilated retinoscopy within the lenticonus, localized posterior convexity of peripheral capsule on ultrasound biomicroscopy, and increased higher-order aberrations (HOAs) on wavefront aberrometry compared with fellow-eye findings confirmed the diagnosis. To our knowledge, acquired peripheral posterior lenticonus representing dialysis of Weigert ligament after acute blunt trauma is a new finding. This case provides an insight into the pattern of higher HOAs associated with any type of lenticonus.

19: Dogra PM, Bhatt AK, Agarwal SK, Bhowmik D. Short-course metronidazole-induced reversible acute neurotoxicity in a renal transplant recipient. Saudi J Kidney Dis Transpl. 2018 Nov-Dec;29(6):1511-1514. doi: 10.4103/1319-2442.248315. PubMed PMID: 30588989.

Neurotoxic manifestations due to chronic metronidazole intake are well known, but neurotoxicity due to short-term use of metronidazole is very rare. We present a case of acute neurotoxicity due to short course of injectable metronidazole given in usual doses to a renal allograft recipient for persistent diarrhea. It responded to withdrawal of the offending drug. Tacrolimus trough concentration did not increase during neurotoxicity, thereby ruling out any metronidazole-tacrolimus interaction. Magnetic resonance imaging of the brain showed widespread osmotic demyelination and its recovery after drug withdrawal. This is the first reported case of a renal transplant recipient developing acute neurotoxicity due to short-term use of metronidazole, without any increase in tacrolimus trough concentrations.

20: Dubey M, Nongkynrih B, Gupta SK, Kalaivani M, Goswami AK, Salve HR. Screen-based media use and screen time assessment among adolescents residing in an Urban Resettlement Colony in New Delhi, India. J Family Med Prim Care. 2018 Nov-Dec;7(6):1236-1242. doi: 10.4103/jfmpc.jfmpc_190_18. PubMed PMID: 30613503; PubMed Central PMCID: PMC6293917.

Background: Media forms an important part of the lives of adolescents in as much as the shows they watch on television, playing video games, as well as visiting the various websites. There is a growing concern of the influence of media on every aspect of health of children and adolescents. About 95% of the population in India has availability of television. India has limited studies which have explored the use of screen-based media (SBM) and its effect on child health. This study was conducted to assess the pattern of SBM use.
Methods: A community-based cross-sectional study was conducted in an Urban Resettlement Colony, New Delhi. The study included 550 adolescents of age group from 10 to 19 years of age selected through simple random sampling from a list of adolescents residing in the area. A semi-structured interview schedule was used.
Results: About 98% of the adolescents used SBM. Television formed the maximum used media (96.5%). The mean (standard deviation) of the screen time was found to be 3.8 (2.77) h/day. Out of the total screen time, time contributed by television is 2.8 h/day followed by other SBM. About 68% of adolescents reported having screen time more than the recommended (>2 h). Significant association was observed between screen time and watching television while eating [odds ratio (95% confidence interval) = 0.35 (0.22, 0.55)].
Conclusion: High proportion of adolescents use SBM for more than the recommended screen time. We should have a recommendation for maximum screen time separately for developing countries.

21: Garg S, Gupta SK, Bakhshi S, Mallick S, Kumar L. ETP-ALL with aberrant B marker expression: Case series and a brief review of literature. Int J Lab Hematol. 2019 Apr;41(2):e32-e37. doi: 10.1111/ijlh.12942. Epub 2018 Nov 8. PubMed PMID: 30407727.

22: Garika SS, Sharma A, Razik A, Sharma A, Pandey RM, Gamanagatti S, Kumar R, Mittal R. Comparison of F18-Fluorodeoxyglucose Positron Emission Tomography/Computed Tomography and Dynamic Contrast-Enhanced Magnetic Resonance Imaging as Markers of Graft Viability in Anterior Cruciate Ligament Reconstruction. Am J Sports Med. 2019 Jan;47(1):88-95. doi: 10.1177/0363546518805092. Epub 2018 Nov 27. PubMed PMID: 30481047.

BACKGROUND:: F18-fluorodeoxyglucose positron emission tomography/computed tomography (F18-FDG PET/CT) can be used to assess changes in the metabolism of an anterior cruciate ligament (ACL) graft as it is undergoing "ligamentization."

Dynamic contrast-enhanced magnetic resonance imaging (DCE-MRI) is the preferred modality for noninvasive assessment of graft structure and graft vascularity.
PURPOSE:: To compare the use of F18-FDG PET/CT and DCE-MRI to assess ligamentization within the ACL graft and correlate the results with clinical tests.
STUDY DESIGN:: Case series; Level of evidence, 4.
METHODS:: Among 30 recruited patients, 27 patients (3 females and 24 males) completed 2 follow-up assessments at a mean of 125 ± 22 days and 259 ± 38 days after arthroscopic ACL reconstruction. At both assessments, anterior drawer test, Lachman test, and Lysholm scoring (LS) were conducted. Images from F18-FDG PET/CT and MRI were analyzed qualitatively and quantitatively (maximum standardized uptake value [SUVmax], SUVmax ratio to the contralateral side [SUVmax CL], normalized enhancement [NE]) in 3 zones: femoral, intra-articular (IA), and tibial. Of the 27 recruited patients, 1 patient had reinjury due to a fall. Therefore, 26 patients were considered for the final analysis.
RESULTS:: A significant improvement ( P = .0001) was found in median LS, from 78.5 (range, 62-90) to 94.5 (range, 84-100), at the second follow-up. All grafts were found to be viable on PET/CT and vascularized on MRI. All grafts were seen as continuous on MRI, with exception of 1 graft at the second follow-up. Dynamic MRI identified single-vessel supply to all of the grafts at the first follow-up and multiple-vessel supply in 10 patients at the second follow-up. Reduction in the median SUVmax, SUVmax CL, and NE at second follow-up was seen in all 3 zones. Only SUVmax CL in the IA zone showed a significant reduction ( P = .032); patients with excellent LS at the second follow-up showed significantly higher reduction ( P = .005) than patients with good LS. NE in the IA zone was correlated (0.39; P = .048) with LS only at the first follow-up, whereas SUVmax CL (-0.52; P = .006) and SUVmax (-0.49, P = .010) in the IA zone negatively correlated with LS at the second follow-up only. No correlation was observed between PET/CT and MRI parameters.
CONCLUSION:: Glucose metabolism and vascularity in the graft tissue can be used to assess ligamentization of ACL graft. A viable and vascularized graft at first follow-up is associated with good to excellent final outcome, regardless of LS at this stage. Since no correlation was observed between PET/CT and MRI parameters, they may be assessing different domains of the same process. Higher NE in the IA zone at the first follow-up and lower SUVmax CL in the same region at second follow-up are associated with better outcome.

23: Ghoshal UC, Sachdeva S, Pratap N, Verma A, Karyampudi A, Misra A, Abraham P, Bhatia SJ, Bhat N, Chandra A, Chakravartty K, Chaudhuri S, Chandrasekar TS, Gupta A, Goenka M, Goyal O, Makharia G, Mohan Prasad VG, Anupama NK, Paliwal M, Ramakrishna BS, Reddy DN, Ray G, Shukla A, Sainani R, Sadasivan S, Singh SP, Upadhyay R, Venkataraman J. Indian consensus on chronic constipation in adults: A joint position statement of the Indian Motility and Functional Diseases Association and the Indian Society of Gastroenterology. Indian J Gastroenterol. 2018 Nov;37(6):526-544. doi: 10.1007/s12664-018-0894-1. Epub 2019 Jan 8. PubMed PMID: 30617919; PubMed Central PMCID: PMC6339668.

The Indian Motility and Functional Diseases Association and the Indian Society of Gastroenterology developed this evidence-based practice guideline for management of chronic constipation. A modified Delphi process was used to develop this consensus containing 29 statements, which were generated by electronic voting iteration as well as face to face meeting and review of the supporting literature primarily from India. These statements include 9 on epidemiology, clinical presentation, and diagnostic criteria; 8 on pathophysiology; and the remaining 12 on investigations and treatment. When the proportion of those who voted either to accept completely or with minor reservation was 80% or higher, the statement was regarded as accepted. The members of the consensus team believe that this would be useful for teaching, clinical practice, and research on chronic constipation in India and in other countries with similar spectrum of the disorders.

24: Godolphin PJ, Hepburn T, Sprigg N, Walker L, Berge E, Collins R, Gommans J, Ntaios G, Pocock S, Prasad K, Wardlaw JM, Bath PM, Montgomery AA. Central masked

adjudication of stroke diagnosis at trial entry offered no advantage over diagnosis by local clinicians: Secondary analysis and simulation. Contemp Clin Trials Commun. 2018 Nov 10;12:176-181. doi: 10.1016/j.conctc.2018.11.002. eCollection 2018 Dec. Review. PubMed PMID: 30533551; PubMed Central PMCID: PMC6249966.

Background: Central adjudication of stroke type is commonly implemented in large multicentre clinical trials. We investigated the effect of central adjudication of diagnosis of stroke type at trial entry in the Efficacy of Nitric Oxide in Stroke (ENOS) trial.
Methods: ENOS recruited patients with acute ischaemic or haemorrhagic stroke, and diagnostic adjudication was carried out using cranial scans. For this study, diagnoses made by local site clinicians were compared with those by central, masked adjudicators using kappa statistics. The trial primary analysis and subgroup analysis by stroke type were re-analysed using stroke diagnosis made by local clinicians, and simulations were used to assess the impact of increased non-differential misclassification and subgroup effects.
Results: Agreement on stroke type (Ischaemic, Intracerebral Haemorrhage, Unknown stroke type, No-stroke) was high (κ = 0.92). Adjudication of stroke type had no impact on the primary outcome or subgroup analysis by stroke type. With misclassification increased to 10 times the level observed in ENOS and a simulated subgroup effect present, adjudication would have affected trial conclusions.
Conclusions: Stroke type at trial entry was diagnosed accurately by local clinicians in ENOS. Adjudication of stroke type by central adjudicators had no measurable effect on trial conclusions. Diagnostic adjudication may be important if diagnosis is complex and a treatment-diagnosis interaction is expected.

25: Godolphin PJ, Montgomery AA, Woodhouse LJ, Bereczki D, Berge E, Collins R, DÃ-ez-Tejedor E, Gommans J, Lees KR, Ozturk S, Phillips S, Pocock S, Prasad K, Szatmari S, Wang Y, Bath PM, Sprigg N; ENOS Investigators. Central adjudication of serious adverse events did not affect trial's safety results: Data from the Efficacy of Nitric Oxide in Stroke (ENOS) trial. PLoS One. 2018 Nov 26;13(11):e0208142. doi: 10.1371/journal.pone.0208142. eCollection 2018. PubMed PMID: 30475912; PubMed Central PMCID: PMC6258247.

BACKGROUND AND PURPOSE: Central adjudication of serious adverse events (SAEs) can be undertaken in clinical trials, especially for open-label studies where outcome assessment may be at risk of bias. This study explored the effect of central adjudication of SAEs on the safety results of the Efficacy of Nitric Oxide in Stroke (ENOS) Trial.
METHODS: ENOS assigned patients with acute stroke at random to receive either transdermal glyceryl trinitrate (GTN) or no GTN and to Stop or Continue previous antihypertensive treatment. SAEs were reported by local investigators who were not blinded to treatment allocation. Central adjudicators, blinded to treatment allocation, reviewed the investigators reports and used evidence available to confirm or re-categorise the classification of event, likely causality, diagnosis and expectedness of event.
RESULTS: Of 4011 patients enrolled in ENOS, 1473 SAEs were reported by local investigators; this was reduced to 1444 after the review by adjudicators, with 29 re-classified as not an SAE. There was fair agreement between investigators and adjudicators regarding likely causality, with 808 agreements and 644 disagreements (56% crude agreement, weighted kappa, κ = 0.31). Agreement increased upon dichotomisation of the causality categories, with 1432 agreements and 20 disagreements (99% crude agreement, kappa = 0.54). Repeating the main trial safety analysis with investigator reported events showed that adjudication had no effect on the main trial safety conclusions.
CONCLUSIONS: In a large trial, with many SAEs reported, central adjudication of these events did not affect trial conclusions. This suggests that adjudication of SAEs in a clinical trial where the intervention already has a well-established safety profile may not be necessary. Potential efficiency savings (financial, logistical) can be made through not adjudicating SAEs.

26: Goyal A, Gupta U, Kandasamy D, Khadgawat R. Severe Hypercortisolism with Hypokalemic Alkalosis Mimicking Ectopic Cushing Syndrome in a Patient with Cushing Disease Due to Pituitary Microadenoma. Indian J Endocrinol Metab. 2018 Nov-Dec;22(6):860-863. doi: 10.4103/ijem.IJEM_581_18. PubMed PMID: 30766837; PubMed Central PMCID: PMC6330873.

27: Goyal A, Rahaman SH, Raizada N, Kandasamy D, Mehta AP, Khadgawat R. Bilateral Medullary Nephrocalcinosis Secondary to Vitamin D Toxicity: A 14-year Follow-up Report. Indian J Endocrinol Metab. 2018 Nov-Dec;22(6):853-854. doi: 10.4103/ijem.IJEM_588_18. PubMed PMID: 30766831; PubMed Central PMCID: PMC6330868.

28: Goyal A, Boro H, Khandelwal D, Khadgawat R. ACTH Resistance Syndrome: An Experience of Three Cases. Indian J Endocrinol Metab. 2018 Nov-Dec;22(6):843-847. doi: 10.4103/ijem.IJEM_501_18. PubMed PMID: 30766828; PubMed Central PMCID: PMC6330879.

The term adrenocorticotropin (ACTH) resistance syndrome is used for a group of rare inherited disorders, which present with primary adrenal insufficiency during childhood. The syndrome includes two disorders inherited in an autosomal recessive fashion - familial glucocorticoid deficiency and triple A syndrome. Herein, we report our experience of three cases with ACTH resistance syndrome, highlighting the approach to diagnosis and management in such patients.

29: Guha S, Harikrishnan S, Ray S, Sethi R, Ramakrishnan S, Banerjee S, Bahl VK, Goswami KC, Banerjee AK, Shanmugasundaram S, Kerkar PG, Seth S, Yadav R, Kapoor A, Mahajan AU, Mohanan PP, Mishra S, Deb PK, Narasimhan C, Pancholia AK, Sinha A, Pradhan A, Alagesan R, Roy A, Vora A, Saxena A, Dasbiswas A, Srinivas BC, Chattopadhyay BP, Singh BP, Balachandar J, Balakrishnan KR, Pinto B, Manjunath CN, Lanjewar CP, Jain D, Sarma D, Paul GJ, Zachariah GA, Chopra HK, Vijayalakshmi IB, Tharakan JA, Dalal JJ, Sawhney JPS, Saha J, Christopher J, Talwar KK, Chandra KS, Venugopal K, Ganguly K, Hiremath MS, Hot M, Das MK, Bardolui N, Deshpande NV, Yadava OP, Bhardwaj P, Vishwakarma P, Rajput RK, Gupta R, Somasundaram S, Routray SN, Iyengar SS, Sanjay G, Tewari S, Sengottuvelu G, Kumar S, Mookerjee S, Nair T, Mishra T, Samal UC, Kaul U, Chopra VK, Narain VS, Raj V, Lokhandwala Y. Corrigendum to "Cardiological Society of India position statement on management of heart failure in India" [Indian Heart J 70 (S1) (2018) S1-S72]. Indian Heart J. 2018 Nov - Dec;70(6):952-953. doi: 10.1016/j.ihj.2018.11.002. Epub 2018 Nov 3. PubMed PMID: 30580876; PubMed Central PMCID: PMC6306345.

30: Gulati K, Madhukar V, Verma V, Singh AR, Gupta SK, Sarkar C. Medical leadership competencies: A comparative study of physicians in public and private sector hospitals in India. Int J Health Plann Manage. 2019 Jan;34(1):e947-e963. doi: 10.1002/hpm.2709. Epub 2018 Nov 27. PubMed PMID: 30480333.

PURPOSE: Indian health care system comprising of public and private sectors needs enhancement of medical leadership capacity to face the growing challenges. Hence, this study was designed to evaluate medical leadership competencies of public and private sector doctors.
FINDINGS: A survey questionnaire was developed to assess "self-assessed proficiency levels" as well as "perceived importance of competency levels," to which 532 doctors responded-290 (54.5%) from private sector and 242 (45.5%) from public sector hospitals. Statistically significant "leadership competency gap" was observed for all 30 leadership competencies in both sectors, more so in public sector. The 10 most deficient competencies were mainly in the NHS-MLCF domains of "working with others," "managing services," and "setting direction." The most low-rated competency among public sector doctors was "knowledge of HR, procurement, financial, and contract management" while "ability to influence key decision makers who determine future government policies" was most deficient among private sector physicians. Further, deficiencies related to "time and stress management" and "conducting need analysis, identifying and prioritizing

requirements" were confined to public and private sector doctors, respectively. CONCLUSIONS: This study, first from India, highlights a critical need for medical leadership development programs in both sectors for enhancement of medical leadership capacity in the country.

31: Gulati S. Dietary Therapies: Emerging Paradigms in Therapy of Drug Resistant Epilepsy in Children : Based on 6th Dr. I. C. Verma Excellence in Research Award Oration. Indian J Pediatr. 2018 Nov;85(11):1000-1005. doi: 10.1007/s12098-018-2779-9. Epub 2018 Sep 21. Review. PubMed PMID: 30242606.

About one-third of childhood epilepsy ultimately becomes drug resistant epilepsy. Only about one-third of drug resistant epilepsy is amenable for epilepsy surgery. Epilepsy surgery and vagal nerve stimulation is still beyond the reach of huge proportion of children with pharmacoresistant epilepsy. Ketogenic diet (KD) has been in use for almost a century now all over the world for drug resistant epilepsy, although in between there was a decline in its popularity with advent of newer antiepileptic drugs like valproate, phenytoin and carbamazepine. Again from 1990s there was resurgence of interest in KD for pharmacoresistant epilepsy and in the last two decades several randomized controlled trials and systemic reviews have proved its efficacy beyond any suspicion. Ketogenic diet is a high fat low carbohydrate and low protein diet, which has been found to reduce epileptogenesis in body most probably by production of ketone bodies. Modified Atkin's Diet (MAD) first introduced in 2003 and Low Glycemic Index Treatment (LGIT) first introduced in 2005 are another two dietary therapies, which are less restrictive, more palatable with fewer adverse effects and comparable efficacy. MAD is also a high fat, low carbohydrate diet, in which high sugar foods are discouraged and protein and fluids are unrestricted. In LGIT, only carbohydrates with Glycemic Index <50 are allowed and carbohydrate intake is restricted to 40-60 g per day. Medium Chain Triglyceride KD (MCT KD) is another alternative, in which there are more food choices as compared to classic KD, with comparable efficacy.

32: Gulati S, Sondhi V. Cerebral Palsy: An Overview. Indian J Pediatr. 2018 Nov;85(11):1006-1016. doi: 10.1007/s12098-017-2475-1. Epub 2017 Nov 20. Review. PubMed PMID: 29152685.

Cerebral palsy (CP) is a neurodevelopmental disorder characterized by abnormalities of muscle tone, movement and motor skills, and is attributed to injury to the developing brain. The clinical features of this entity evolve over time and the specific CP syndrome may be recognizable only after 3-5 y of age; although suggestive signs and symptoms may be present at an earlier age. The management involves neurological rehabilitation (addressing muscle tonal abnormalities, and devising physical and occupational therapies) and diagnosis and management of co-morbidities (including epilepsy, impairment of cognition, vision, hearing, and disturbances of growth and gastrointestinal function). The management, therefore, is multidisciplinary involving the treating physician working with a team of rehabilitation-, orthopedic-, psychologic-, and social care- providers.

33: Gunjan D, Jain S, Garg P. Dislodged hood stuck in submucosal tunnel: retrieval during peroral endoscopic myotomy. Endoscopy. 2018 Nov;50(11):E314-E315. doi: 10.1055/a-0658-0955. Epub 2018 Aug 14. PubMed PMID: 30107630.

34: Guo J, Giovannini M, Sahai AV, Saftoiu A, Dietrich CF, Santo E, Fusaroli P, Siddiqui AA, Bhutani MS, Bun Teoh AY, Irisawa A, Arturo Arias BL, Achanta CR, Jenssen C, Seo DW, Adler DG, Kalaitzakis E, Artifon E, Itokawa F, Poley JW, Mishra G, Ho KY, Wang HP, Okasha HH, Lachter J, Vila JJ, Iglesias-Garcia J, Yamao K, Yasuda K, Kubota K, Palazzo L, Sabbagh LC, Sharma M, Kida M, El-Nady M, Nguyen NQ, Vilmann P, Garg PK, Rai P, Mukai S, Carrara S, Parupudi S, Sridhar S,

Lakhtakia S, Rana SS, Ogura T, Baron TH, Dhir V, Sun S. A multi-institution consensus on how to perform EUS-guided biliary drainage for malignant biliary obstruction. Endosc Ultrasound. 2018 Nov-Dec;7(6):356-365. doi: 10.4103/eus.eus_53_18. PubMed PMID: 30531022; PubMed Central PMCID: PMC6289007.

Background and Objectives: EUS-guided biliary drainage (EUS-BD) was shown to be useful for malignant biliary obstruction (MBO). However, there is lack of consensus on how EUS-BD should be performed.
Methods: This was a worldwide multi-institutional survey among members of the International Society of EUS conducted in February 2018. The survey consisted of 10 questions related to the practice of EUS-BD.
Results: Forty-six endoscopists of them completed the survey. The majority of endoscopists felt that EUS-BD could replace percutaneous transhepatic biliary drainage after failure of ERCP. Among all EUS-BD methods, the rendezvous stenting technique should be the first choice. Self-expandable metal stents (SEMSs) were recommended by most endoscopists. For EUS-guided hepaticogastrostomy (HGS), superiority of partially-covered SEMS over fully-covered SEMS was not in agreement. 6-Fr cystotomes were recommended for fistula creation. During the HGS approach, longer SEMS (8 or 10 cm) was recommended. During the choledochoduodenostomy approach, 6-cm SEMS was recommended. During the intrahepatic (IH) approach, the IH segment 3 was recommended.
Conclusion: This is the first worldwide survey on the practice of EUS-BD for MBO. There were wide variations in practice, and randomized studies are urgently needed to establish the best approach for the management of this condition.

35: Gupta H, Mishra P, Kataria H, Jain V, Tyagi AR, Mahajan H, Upadhyay AD. Optimal Angle of the Bone Tunnel for Avoiding Axillary Nerve Injuries During Arthroscopic Transosseous Rotator Cuff Repair: A Magnetic Resonance Imaging-Based Simulation Study. Orthop J Sports Med. 2018 Nov 9;6(11):2325967118806295. doi: 10.1177/2325967118806295. eCollection 2018 Nov. PubMed PMID: 30480014; PubMed Central PMCID: PMC6240968.

Background: Axillary nerve injury and suture cutout through the roof of the tunnel are potential complications of arthroscopic transosseous rotator cuff repair (ATORCR).
Purpose: To determine a safe angle of drilling for the bone tunnel during ATORCR such that the axillary nerve is not at risk. The thickness of the bone bridge over the tunnel for different angles of drilling was also determined.
Study Design: Descriptive laboratory study.
Methods: The drilling of a straight tunnel was simulated on 30 magnetic resonance imaging (MRI) scans in the oblique coronal plane by drawing a straight line that passed at a "safe distance" of 5 mm from the axillary nerve and emerging at the medial border of the insertion of the rotator cuff on the greater tuberosity. The angle made by this line with the horizontal axis of the humerus was measured on 3 MRI sections: anterior (passing just posterior to the lateral lip of the bicipital groove), middle (at the most lateral point of the proximal humerus), and posterior (an equal number of cuts away from the middle section as between anterior and middle). The thickness of the overlying bone roof was measured for this line as well as for simulation lines drawn at 50°, 55°, 60°, and 65° with the horizontal axis. A "safe limit," defined as the mean - 2SD, was also calculated.
Results: The axillary nerve was found to be safe, with a safety margin of 5 mm, at drill angles of less than 61.1° and 60.3° in the posterior and middle sections, respectively. The safe limit value for thickness of the overlying bone roof for the tunnel drilled at 60° was 5.0 mm in the posterior section (mean, 8.2 ± 0.3 mm) and 5.5 mm in the middle section (mean, 8.1 ± 0.2 mm). In the anterior section, the minimum safe angle was 57.7°, and the mean thickness of the bone roof for the 55° angle was 6.3 ± 0.2 mm (safe limit, 3.7 mm).
Conclusion: Straight bone tunnels in ATORCR surgery should be drilled at an angle of 60° to the horizontal axis of the humerus or 30° to the humeral shaft to ensure the safety of the axillary nerve while at the same time ensuring adequate thickness of the overlying bone roof. The anterior tunnel close to the bicipital

groove should be drilled cautiously at 55° to the horizontal axis or 35° to the humeral shaft.
Clinical Relevance: The findings of the present study will help the surgeon choose the best angle for drilling tunnels during ATORCR surgery to avoid axillary nerve injuries as well as suture cut-through without the need for any proprietary device.

36: Gupta K, Hage FG, McConathy J, Bajaj NS. Measurement of blood flow in myocardial layers: A step toward comprehensive physiological evaluation. J Nucl Cardiol. 2018 Nov 27. doi: 10.1007/s12350-018-01533-7. [Epub ahead of print] PubMed PMID: 30483956.

37: Gupta S, Selvan H, Gupta V. Single-suture single-knot ab interno cyclopexy for extensive posttraumatic cyclodialysis: Modified sewing machine technique. J Cataract Refract Surg. 2019 Jan;45(1):3-7. doi: 10.1016/j.jcrs.2018.08.031. Epub 2018 Nov 1. PubMed PMID: 30391153.

We describe a modified sewing machine technique that is ab interno and minimally invasive. The single-suture, single-knot endocyclopexy (internal suture fixation) is performed to correct cyclodialysis. This inside-out technique is an alternative to existing standard cleft repair procedures, such as external direct/indirect cyclopexy and endocyclotamponade (internal mechanical tamponade using extraneous agents). Results in 1 case indicate that the modified technique can be used as a primary procedure and in eyes in which previous cyclopexy failed.

38: Gupta S, Sagar R. National Mental Health Programme-Optimism and Caution: A Narrative Review. Indian J Psychol Med. 2018 Nov-Dec;40(6):509-516. doi: 10.4103/IJPSYM.IJPSYM_191_18. Review. PubMed PMID: 30533946; PubMed Central PMCID: PMC6241184.

India was one of the major World Health Organization (WHO) member countries to launch its National Mental Health Programme (NMHP) in 1982 in accordance with WHO's recommendations to deliver mental health services to the people under the framework of general health care system in the community. NMHP underwent major strategic revisions over its course, starting from setting a district as the unit for program planning and implementation under the District Mental Health Program (DMHP) to incorporating it with the National Rural Health Mission (NRHM) for effectively scaling up the program. The program also underwent evaluations by government bodies and independent agencies and was reviewed by many researchers. The program has been partly successful in terms of enhancing its reach to community, improving service delivery, and getting increased budgetary allocation, but at the same time, its impact was limited by financial and human resource constraints, lack of community participation, ineffective training, poor NGO/private partnership, and lack of a robust monitoring and evaluation (M and E) system. The latest National Mental Health Policy and the incorporation of its objectives have given a new impetus to the ongoing NMHP, however, its implementation needs to be monitored and the impact is yet to be evaluated. We attempted to review the available literature pertaining to NMHP and DMHP to highlight the determinants of its outcome, with special emphasis on on-going programs and to provide some important future directions.

39: Gupta S, Selvan H, Kishan A, Jayaraman N, Gupta V. Single-point pivot for combined repair of concurrent iridodialysis and cyclodialysis. J Cataract Refract Surg. 2018 Nov;44(11):1306-1309. doi: 10.1016/j.jcrs.2018.08.004. PubMed PMID: 30368349.

Iridodialysis and cyclodialysis can occur simultaneously in patients with blunt trauma to the eye, and both might necessitate surgical correction when symptoms emerge. Numerous techniques are used to repair each dialysis individually; thus, the patient will have to return to the operating room for each additional

surgery. To our knowledge, the literature lacks techniques to manage both conditions simultaneously. We developed a new approach in which both dialyses can be repaired using a single suture, pivoting both at the same point. The suture that passes through the eyelet of the capsular tension ring placed in the sulcus (for internal cyclopexy) is further passed through the detached iris root and retracted via the ciliary cleft to be tied over the scleral bed, facilitating closure of both dialyses at the same time. This is an effective approach for the repair of concurrent iridodialysis and cyclodialysis.

40: Gupta S, Jain S. Comment on: Diagnostic positron emission tomography-computed tomography in clinically elusive giant cell arteritis. Indian J Ophthalmol. 2018 Nov;66(11):1655-1656. doi: 10.4103/ijo.IJO_1185_18. PubMed PMID: 30355897; PubMed Central PMCID: PMC6213681.

41: Gupta S, Selvan H, Agrawal S, Gupta V. Dynamic gonioscopy and ultrasound biomicroscopy for diagnosis of latent or low-lying cyclodialysis clefts. Clin Exp Ophthalmol. 2018 Nov;46(8):960-962. doi: 10.1111/ceo.13316. Epub 2018 May 23. PubMed PMID: 29737038.

42: Gupta V, Sharma VK. Four views of trichomycosis axillaris: Clinical, Wood's lamp, dermoscopy and microscopy. Indian J Dermatol Venereol Leprol. 2018 Nov-Dec;84(6):748-749. doi: 10.4103/ijdvl.IJDVL_567_17. PubMed PMID: 29516899.

43: Gupta Y, Kapoor D, Josyula LK, Praveen D, Naheed A, Desai AK, Pathmeswaran A, de Silva HA, Lombard CB, Shamsul Alam D, Prabhakaran D, Teede HJ, Billot L, Bhatla N, Joshi R, Zoungas S, Jan S, Patel A, Tandon N. A lifestyle intervention programme for the prevention of Type 2 diabetes mellitus among South Asian women with gestational diabetes mellitus [LIVING study]: protocol for a randomized trial. Diabet Med. 2019 Feb;36(2):243-251. doi: 10.1111/dme.13850. Epub 2018 Nov 29. PubMed PMID: 30368898.

AIM: This study aims to determine whether a resource- and culturally appropriate lifestyle intervention programme in South Asian countries, provided to women with gestational diabetes (GDM) after childbirth, will reduce the incidence of worsening of glycaemic status in a manner that is affordable, acceptable and scalable.
METHODS: Women with GDM (diagnosed by oral glucose tolerance test using the International Association of the Diabetes and Pregnancy Study Groups criteria) will be recruited from 16 hospitals in India, Sri Lanka and Bangladesh. Participants will undergo a repeat oral glucose tolerance test at 6 ± 3 months postpartum and those without Type 2 diabetes, a total sample size of 1414, will be randomly allocated to the intervention or usual care. The intervention will consist of four group sessions, 84 SMS or voice messages and review phone calls over the first year. Participants requiring intensification of the intervention will receive two additional individual sessions over the latter half of the first year. Median follow-up will be 2 years. The primary outcome is the proportion of women with a change in glycaemic category, using the American Diabetes Association criteria: (i) normal glucose tolerance to impaired fasting glucose, or impaired glucose tolerance, or Type 2 diabetes; or (ii) impaired fasting glucose or impaired glucose tolerance to Type 2 diabetes. Process evaluation will explore barriers and facilitators of implementation of the intervention in each local context, while trial-based and modelled economic evaluations will assess cost-effectiveness.
DISCUSSION: The study will generate important new evidence about a potential strategy to address the long-term sequelae of GDM, a major and growing problem among women in South Asia. (Clinical Trials Registry of India No: CTRI/2017/06/008744; Sri Lanka Clinical Trials Registry No: SLCTR/2017/001; and ClinicalTrials.gov Identifier No: NCT03305939).

44: Haffar S, Shalimar, Kaur RJ, Wang Z, Prokop LJ, Murad MH, Bazerbachi F. Acute liver failure caused by hepatitis E virus genotype 3 and 4: A systematic review and pooled analysis. Liver Int. 2018 Nov;38(11):1965-1973. doi:

10.1111/liv.13861. Epub 2018 May 25. PubMed PMID: 29675889.

BACKGROUND & AIMS: Acute liver failure caused by hepatitis E virus genotype 3 and 4 has been rarely described. Because of the presence of a short golden therapeutic window in patients with viral acute liver failure from other causes, it is possible that early recognition and treatment might reduce the morbidity and mortality. We performed a systematic review and pooled analysis of acute liver failure caused by hepatitis E virus genotype 3 and 4.
METHODS: Two reviewers appraised studies after searching multiple databases on June 12th, 2017. Appropriate tests were used to compare hepatitis E virus genotype 3 vs 4, suspected vs confirmed genotypes, hepatitis E virus-RNA positive vs negative, and to discern important mortality risk factors.
RESULTS: We identified 65 patients, with median age 58 years (range: 3-79), and a male to female ratio of 1.2:1. The median bilirubin, ALT, AST and alkaline phosphatase (expressed by multiplication of the upper limit of normal) levels were 14.8, 45.3, 34.8 and 1.63 respectively. Antihepatitis E virus IgG, antihepatitis E virus IgM and hepatitis E virus-RNA were positive in 84%, 91% and 86% of patients respectively. The median interval from symptoms onset to acute liver failure was 23 days, and 16 patients underwent liver transplantation. Final outcome was reported in 58 patients and mortality was 46%. Age was a predictor of poor prognosis in multivariate analysis. No important differences were found between patients infected with genotype 3 vs 4, patients with confirmed vs suspected genotypes, or patients with positive vs negative RNA.
CONCLUSION: Acute liver failure caused by hepatitis E virus genotype 3 and 4 is rare, similar between genotypes, occurs commonly in middle-aged/elderly patients and has a very high mortality. Age is predictive of poor prognosis in multivariate analysis.

45: Hari S, Paul SB, Vidyasagar R, Dhamija E, Adarsh AD, Thulkar S, Mathur S, Sreenivas V, Sharma S, Srivastava A, Seenu V, Prashad R. Breast mass characterization using shear wave elastography and ultrasound. Diagn Interv Imaging. 2018 Nov;99(11):699-707. doi: 10.1016/j.diii.2018.06.002. Epub 2018 Jul 10. PubMed PMID: 30006125.

PURPOSE: To evaluate the role of SWE in characterizing breast masses and ascertain whether additional use of SWE to ultrasound for evaluating BI-RADS 3 and 4a masses could help reduce long-term follow-up and unnecessary biopsies of these suspicious breast masses.
MATERIALS AND METHODS: This prospective, cross-sectional study was performed between June 2013 and November 2014. All enrolled patients underwent clinical breast examination, ultrasound, SWE and ultrasound-guided core biopsy of the breast mass. Breast Imaging Reporting and Data System (BI-RAD) categories were assigned to breast masses. For qualitative and quantitative variables of SWE, cut-off values for differentiation between benign and malignant breast masses were estimated. Modified BIRADS' (up/downgrading of BIRADS category) was done for BI-RADS 3/4a masses by combining individual SWE parameters and ultrasound findings. Sensitivity, specificity, positive and negative predictive value of modified BI-RADS' and ultrasound BI-RADS were compared.
RESULTS: A total of 119 women (mean age, 42.3±13.6 [SD] years; range: 13-87 years) with a single breast mass each were enrolled. Histopathologically, 57/119 (48%) breast masses were benign and 62 (52%) were malignant. On ultrasound, 42 breast masses were BI-RADS3 and 77 were BI-RADS 4 (4a, n=10; 4b, n=24; 4c, n=43) leading to 96.8% sensitivity and 70.2% specificity. On SWE, benign breast masses were oval/round, homogenous/reasonably homogenous, blue/green with lower elasticity values and malignant breast masses were irregular, inhomogeneous, red/orange with high elasticity values. On modified BI-RADS' using E-color and E-mean/E-max, specificity improved to 78.9% and 75.4% respectively.
CONCLUSION: Addition of SWE to ultrasound improves characterization of BI-RADS 3 and 4a masses. E-max, E-mean and E-color are the most useful SWE parameters to differentiate between malignant and benign breast masses.

46: Jagannathan NR. Application of in vivo MR methods in the study of breast

cancer metabolism. NMR Biomed. 2018 Nov 20:e4032. doi: 10.1002/nbm.4032. [Epub ahead of print] PubMed PMID: 30456917.

In the last two decades, various in vivo MR methodologies have been evaluated for their potential in the study of cancer metabolism. During malignant transformation, metabolic alterations occur, leading to morphological and functional changes. Among various MR methods, in vivo MRS has been extensively used in breast cancer to study the metabolism of cells, tissues or whole organs. It provides biochemical information at the metabolite level. Altered choline, phospholipid and energy metabolism has been documented using proton (1 H), phosphorus (31 P) and carbon (13 C) isotopes. Increased levels of choline-containing compounds, phosphomonoesters and phosphodiesters in breast cancer, which are indicative of altered choline and phospholipid metabolism, have been reported using in vivo, in vitro and ex vivo NMR studies. These changes are reversed on successful therapy, which depends on the treatment regimen given. Monitoring the various tumor intermediary metabolic pathways using nuclear spin hyperpolarization of 13 C-labeled substrates by dynamic nuclear polarization has also been recently reported. Furthermore, the utility of various methods such as diffusion, dynamic contrast and perfusion MRI have also been evaluated to study breast tumor metabolism. Parameters such as tumor volume, apparent diffusion coefficient, volume transfer coefficient and extracellular volume ratio are estimated. These parameters provide information on the changes in tumor microstructure, microenvironment, abnormal vasculature, permeability and grade of the tumor. Such changes seen during cancer progression are due to alterations in the tumor metabolism, leading to changes in cell architecture. Due to architectural changes, the tissue mechanical properties are altered; this can be studied using magnetic resonance elastography, which measures the elastic properties of tissues. Moreover, these structural MRI methods can be used to investigate the effect of therapy-induced changes in tumor characteristics. This review discusses the potential of various in vivo MR methodologies in the study of breast cancer metabolism.

47: Jain M, Rojanaporn D, Chawla B, Sundar G, Gopal L, Khetan V. Retinoblastoma in Asia. Eye (Lond). 2019 Jan;33(1):87-96. doi: 10.1038/s41433-018-0244-7. Epub 2018 Nov 1. Review. PubMed PMID: 30385881; PubMed Central PMCID: PMC6328585.

Asia-Pacific region bears a significant global burden of retinoblastoma (RB), therefore understanding RB in Asia-Pacific region is important. Based on the year 2013 population estimates, 43% (3452 of 8099 children) of the global burden of RB lives in 6 countries of Asia-Pacific region: 1486 children in India, 1103 children in China, 277 children in Indonesia, 260 children in Pakistan, 184 children in Bangladesh, 142 children in Philippines. There exists a wide disparity, technological and socio-economical, within countries in this region resulting in a varied pattern of clinical presentation and survival varies. Challenges in developing nations are not just technological, but also social. Opportunities emerge for research to study and understand the socio-economical aspects of the disease to develop interventions that are relevant culturally and feasible economically. Possible steps include disease education and counselling, universal screening, highly subsidized/free of cost treatment for low socioeconomic strata, raising funds through the government and non-governmental organizations, sensitization and training of man-power in screening, diagnosis and treatment, and developing new specialized centers with tele-ophthalmology services.

48: Jain V, Arora S, Passah A, Mani K, Yadav DK, Goel P, Gupta DK. Comparison of the renal dynamic scan performed with 99mTc-L,L-EC and 99mTc-MAG3 in children with pelviureteric junction obstruction. Nucl Med Commun. 2018 Nov;39(11):1053-1058. doi: 10.1097/MNM.0000000000000902. PubMed PMID: 30169343.

The aim was to compare the renal dynamic scan (RDS) performed with technetium-99-L,L-ethylene dicysteine (Tc-L,L-EC) and technetium-99-mercaptoacetyltriglycine (Tc-MAG3) in children with pelviureteric

junction (PUJ) obstruction. A retrospective study was carried out and children with PUJ obstruction who had RDS performed with both Tc-L,L-EC and Tc-MAG3. Children with any intervention in between the two scans or a gap of more than 2 months in between renal scans were excluded. The dose of each radiotracer used was 0.1 mCi/kg (3.7 MBq/kg), with a minimum dose of 1 mCi (37 MBq). RDS was performed using the F+0 protocol. The differential renal function, Tmax, T1/2, drainage pattern, and hepatic uptake of the radiotracer were recorded and compared. A Bland-Altman plot was used to assess agreement between the two radiotracers. Sixteen children were included in the study. A total of 18 obstructed and 14 normal renal units were available to us for study. The values of differential renal function as well as Tmax and T1/2 of the two radiotracers were in agreement. In three obstructed kidneys in which T1/2 on Tc-MAG3 was greater than 20 min, Tc-L,L-EC showed T1/2 values of 13.3 min or less. Tc-L,L-EC showed nonobstructive drainage in three patients who had shown partial obstruction on Tc-MAG3 scan. The hepatic uptake of Tc-L,L-EC was also lower compared with Tc-MAG3. To conclude Tc-L,L-EC is a useful radiotracer for the evaluation of children with PUJ obstruction, with better assessment of drainage and lower hepatic uptake compared with Tc-MAG3.

49: Jassi R, Mehta N, Ramam M, Bhari N. Blaschkoid blue vitiligo. Int J Dermatol. 2019 Feb;58(2):e45-e46. doi: 10.1111/ijd.14297. Epub 2018 Nov 19. PubMed PMID: 30456815.

50: Jat KR, Vaidya PC, Mathew JL, Jondhale S, Singh M. Childhood allergic bronchopulmonary aspergillosis. Lung India. 2018 Nov-Dec;35(6):499-507. doi: 10.4103/lungindia.lungindia_216_18. Review. PubMed PMID: 30381560; PubMed Central PMCID: PMC6219146.

Allergic bronchopulmonary aspergillosis (ABPA) is a pulmonary disease caused by Aspergillus induced hypersensitivity. It usually occurs in immunocompetent but susceptible patients with bronchial asthma and cystic fibrosis. If ABPA goes undiagnosed and untreated, it may progress to bronchiectasis and/or pulmonary fibrosis with significant morbidity and mortality. ABPA is a well-recognized entity in adults; however, there is lack of literature in children. The aim of the present review is to summarize pathophysiology, diagnostic criteria, clinical features, and treatment of ABPA with emphasis on the pediatric population. A literature search was undertaken through PubMed till April 30, 2018, with keywords "ABPA or allergic bronchopulmonary aspergillosis" with limitation to "title." The relevant published articles related to ABPA in pediatric population were included for the review. The ABPA is very well studied in adults. Recently, it is increasingly being recognized in children. There is lack of separate diagnostic criteria of ABPA for children. Although there are no trials regarding treatment of ABPA in children, steroids and itraconazole are the mainstay of therapy based on studies in adults and observational studies in children. Omalizumab is upcoming therapy, especially in refractory ABPA cases. There is a need to develop the pediatric-specific cutoffs for diagnostic criteria in ABPA. Well-designed trials are required to determine appropriate treatment regimen in children.

51: Jose A, Nagori SA, Roy ID, Roychoudhury A. Orthodromic transfer of the temporalis tendon with extension of the fascia lata to reanimate the smile in facial palsy. Br J Oral Maxillofac Surg. 2018 Nov;56(9):890-892. doi: 10.1016/j.bjoms.2018.08.011. Epub 2018 Sep 3. PubMed PMID: 30190089.

52: Kapil U, Khandelwal R, Ramakrishnan L, Khenduja P, Gupta A, Pandey RM, Upadhyay AD, Belwal RS. Prevalence of hypertension, diabetes, and associated risk factors among geriatric population living in a high-altitude region of rural Uttarakhand, India. J Family Med Prim Care. 2018 Nov-Dec;7(6):1527-1536. doi: 10.4103/jfmpc.jfmpc_108_18. PubMed PMID: 30613554; PubMed Central PMCID: PMC6293909.

Background: Hypertension (HTN) and diabetes mellitus (DM) both are rapidly

emerging as public health problems among geriatric population in developing countries. HTN can lead to stroke, myocardial infarction, congestive heart failure, and chronic kidney diseases among geriatric population. DM increases the risk of coronary heart disease, cerebrovascular disease, peripheral vascular disease, retinopathy, nephropathy, and neuropathy among geriatric population. Methodology: A community-based, cross-sectional study was conducted during 2015-2016 in District Nainital, Uttarakhand. A list of all villages with their population in the district was developed. From this list, 30 villages were identified using population proportionate to size sampling method. From each village, 30 geriatric subjects were selected. A total of 1003 geriatric subjects age 60 years and above were included in the study. Data were collected on sociodemographic profile, blood pressure, fasting blood glucose, anthropometry, and lipid profile from all the enrolled subjects. The prevalence of HTN and DM was assessed. Univariate and multivariate analyses were done to identify risk factors associated with HTN and DM.
Results: The prevalence of HTN and DM was found to be 54.5% and 14.6%, respectively. For HTN, advancing age, high educational level and body mass index (BMI) (≥25 kg/m2) and for DM higher education level and BMI (≥25 kg/m2) were found to be significant risk factors.
Conclusion: A high prevalence of HTN and DM was found in geriatric population residing in rural area of Uttarakhand.

53: Kapil U. Adaptations in the IMCI Algorithm in Diagnosis of Acute Respiratory Tract Infections. Indian J Pediatr. 2018 Dec;85(12):1057-1058. doi: 10.1007/s12098-018-2804-z. Epub 2018 Nov 16. Review. PubMed PMID: 30446931.

54: Kapoor MC, Ahmed SM, Garg R. Indian resuscitation council cardiopulmonary resuscitation guidelines: The way ahead! Indian J Anaesth. 2018 Nov;62(11):924-925. doi: 10.4103/ija.IJA_646_18. PubMed PMID: 30532340; PubMed Central PMCID: PMC6236781.

55: Katiyar V, Dharanipathy S, Gurjar H, Vora Z, Sharma R. Post-traumatic hydrocephalus following decompressive craniectomy: how well can it be predicted? Acta Neurochir (Wien). 2018 Nov;160(11):2125. doi: 10.1007/s00701-018-3684-8. Epub 2018 Oct 2. PubMed PMID: 30280259.

56: Kaur C, Pal I, Saini S, Jacob TG, Nag TC, Thakar A, Bhardwaj DN, Roy TS. Comparison of unbiased stereological estimation of total number of cresyl violet stained neurons and parvalbumin positive neurons in the adult human spiral ganglion. J Chem Neuroanat. 2018 Nov;93:30-37. doi: 10.1016/j.jchemneu.2017.06.004. Epub 2017 Jun 23. PubMed PMID: 28648968.

Estimation of total number of neurons in the spiral ganglion (SG) at various ages and their functional status is important as these neurons are constantly exposed to noise and other environmental factors that may lead to neuronal loss with aging due to excitotoxic damage. Parvalbumin (PV) is a calcium-binding protein (CBP), found in highly metabolically active neurons. It helps in buffering cytosolic calcium, which is essential for neurotransmitter release. The neurons in the adult human SG express PV more strongly than other CBPs like calbindin and calretinin. These CBPs can be used as signatures to recognise neurons. In the present study, we quantified the number of neurons expressing PV by unbiased stereology and compared it to the number of neurons stained by cresyl violet (CV), which is a Nissl stain, in the adult human SG. Five adult human cadaveric temporal bones were obtained from the forensic science mortuary, after due clearance from the institute ethics committee. Independent CV stained and PV immunostained sections were used to estimate the total number of neurons (optical fractionator), with StereoInvestigator (SI) software. The estimated total number of SG neurons was 27,485±3251 and 26,705±1823 in the PV and CV stained sections, respectively. There was no significant difference between the estimates (p=0.552). Therefore, CV staining is simpler and more cost effective when estimating neuronal number. Although PV stains spiral ganglion neurons (SGNs) with a greater intensity and provides a functional status, its tedious protocol

limits its use for quantification.

57: Khan R, Sharma A, Bhushan A, Basnet B, Sharma VK, Gupta S. Relationship between Î±-melanocyte stimulating hormone levels and therapeutic outcome of melanocyte transplantation and phototherapy in non-segmental patients with vitiligo: A prospective study. Australas J Dermatol. 2018 Nov;59(4):e315-e318. doi: 10.1111/ajd.12769. Epub 2018 Jan 10. PubMed PMID: 29322506.

58: Khanna K, Yadav DK, Nandan R, Goel P, Srinivas Rao P. Congenital colonic stenosis with absent caecum and appendix: a rare association. BMJ Case Rep. 2018 Nov 1;2018. pii: bcr-2018-225072. doi: 10.1136/bcr-2018-225072. PubMed PMID: 30389731.

Congenital colonic stenosis is a rare condition with less than 20 cases reported in the literature since 1966. We report an interesting case of a 7-month-old baby girl who presented with features suggestive of acute intestinal obstruction. On exploration, it was a case of ascending colon stenosis with absence of caecum and appendix. A double barrel ileocolostomy was performed. The histopathology confirmed the diagnosis of colonic stenosis and ruled out the presence of Hirschsprung's disease in the distal colon. The child underwent second stage surgery (stoma closure) after 9 months. In complex cases of congenital colonic stenosis, an early decompressive surgery followed by a delayed second stage closure is recommended in patients with poor general condition.

59: Khor WB, Prajna VN, Garg P, Mehta JS, Xie L, Liu Z, Padilla MDB, Joo CK, Inoue Y, Goseyarakwong P, Hu FR, Nishida K, Kinoshita S, Puangsricharern V, Tan AL, Beuerman R, Young A, Sharma N, Haaland B, Mah FS, Tu EY, Stapleton FJ, Abbott RL, Tan DT; ACSIKS Group. The Asia Cornea Society Infectious Keratitis Study: A Prospective Multicenter Study of Infectious Keratitis in Asia. Am J Ophthalmol. 2018 Nov;195:161-170. doi: 10.1016/j.ajo.2018.07.040. Epub 2018 Aug 9. PubMed PMID: 30098351.

PURPOSE: To survey the demographics, risk factors, microbiology, and outcomes for infectious keratitis in Asia.
DESIGN: Prospective, nonrandomized clinical study.
METHODS: Thirteen study centers and 30 sub-centers recruited consecutive subjects over 12-18 months, and performed standardized data collection. A microbiological protocol standardized the processing and reporting of all isolates. Treatment of the infectious keratitis was decided by the managing ophthalmologist. Subjects were observed for up to 6 months. Main outcome measures were final visual acuity and the need for surgery during infection.
RESULTS: A total of 6626 eyes of 6563 subjects were studied. The majority of subjects were male (n = 3992). Trauma (n = 2279, 34.7%) and contact lens wear (n = 704, 10.7%) were the commonest risk factors. Overall, bacterial keratitis was diagnosed in 2521 eyes (38.0%) and fungal keratitis in 2166 eyes (32.7%). Of the 2831 microorganisms isolated, the most common were Fusarium species (n = 518, 18.3%), Pseudomonas aeruginosa (n = 302, 10.7%), and Aspergillus flavus (n = 236, 8.3%). Cornea transplantation was performed in 628 eyes to manage ongoing infection, but 289 grafts (46%) had failed by the end of the study. Moderate visual impairment (Snellen vision less than 20/60) was documented in 3478 eyes (53.6%).
CONCLUSION: Demographic and risk factors for infection vary by country, but infections occur predominantly in male subjects and are frequently related to trauma. Overall, a similar percentage of bacterial and fungal infections were diagnosed in this study. Visual recovery after infectious keratitis is guarded, and corneal transplantation for active infection is associated with a high failure rate.

60: Kumar H, Mansoori T, Warjri GB, Somarajan BI, Bandil S, Gupta V. Lasers in glaucoma. Indian J Ophthalmol. 2018 Nov;66(11):1539-1553. doi: 10.4103/ijo.IJO_555_18. Review. PubMed PMID: 30355858; PubMed Central PMCID: PMC6213662.

While lasers have been used for many years for the treatment of glaucoma, proper indications and use of the procedures need to be considered before their application. This review summarizes the important laser procedures in Glaucoma.

61: Kumar KR, Sinha R, Mandal P, Chowdhury AR. C-MAC(Â®) D-BLADE for awake oro-tracheal intubation with minimal mouth opening - A safe alternative to fibreoptic bronchoscope. Indian J Anaesth. 2018 Nov;62(11):916-918. doi: 10.4103/ija.IJA_431_18. PubMed PMID: 30532337; PubMed Central PMCID: PMC6236794.

62: Kumar KR, Selvam SR, Priya B. Awake fibreoptic bronchoscopy guided intubation - significance of sitting position. Indian J Anaesth. 2018 Nov;62(11):910-911. doi: 10.4103/ija.IJA_300_18. PubMed PMID: 30532333; PubMed Central PMCID: PMC6236777.

63: Kumar P, Singh A, Deshmukh A, Phulware RH, Rastogi S, Barwad A, Chandrashekhara SH, Singh V. Qualitative and quantitative CECT features for differentiating renal primitive neuroectodermal tumor from the renal cell carcinoma and its subtypes. Br J Radiol. 2019 Feb;92(1094):20180738. doi: 10.1259/bjr.20180738. Epub 2018 Nov 7. PubMed PMID: 30362816; PubMed Central PMCID: PMC6404838.

OBJECTIVE:: To identify important qualitative and quantitative clinical and imaging features that could potentially differentiate renal primitiveneuroectodermal tumor (PNET) from various subtypes of renalcell carcinoma (RCC).
METHODS:: We retrospectively reviewed 164 patients, 143 with pathologically proven RCC and 21 with pathologically proven renal PNET. Univariate analysis of each parameter was performed. In order to differentiate renal PNET from RCC subtypes and overall RCC as a group, we generated ROC curves and determined cutoff values for mean attenuation of the lesion, mass to aorta attenuation ratio and mass to renal parenchyma attenuation ratio in the nephrographic phase.
RESULTS:: Univariate analysis revealed 11 significant parameters for differentiating renal PNET from clear cell RCC (age, p = <0.001; size, p =< 0.001; endophytic growth pattern, p < 0.001;margin of lesion, p =< 0.001; septa within the lesion, p =< 0.001; renal vein invasion, p =< 0.001; inferior vena cava involvement, p = 0.014; enhancement of lesion less than the renal parenchyma, p = 0.008; attenuation of the lesion, p = 0.002; mass to aorta attenuation ratio, p =< 0.001; and mass to renal parenchyma attenuation ratio, p =< 0.001). Univariate analysis also revealed seven significant parameters for differentiating renal PNET from papillary RCC. For differentiating renal PNET from overall RCCs as a group, when 77.3 Hounsfield unit was used as cutoff value in nephrographic phase, the sensitivity and specificity were 71.83 and 76.92 % respectively. For differentiating renal PNET from overall RCCs as a group, when 0.57 was used as cutoff for mass to aorta enhancement ratio in nephrographic phase, the sensitivity and specificity were 80.28 and 84.62 % respectively.
CONCLUSION:: Specific qualitative and quantitative features can potentially differentiate renal PNET from various subtypes of RCC.
ADVANCES IN KNOWLEDGE:: The study underscores the utility of combined demographic and CT findings to potentially differentiate renal PNET from the much commoner renal neoplasm, i.e. RCC. It has management implications as if RCC is suspected, surgeons proceed with resection without need for confirmatory biopsy. On the contrary, a suspected renal PNET should proceed with biopsy followed by chemoradiotherapy, thus obviating the unnecessary morbidity and mortality.

64: Kumar V, Chatra K. Fibrotic pillar leads to focal choroidal excavation in Best vitelliform dystrophy. Graefes Arch Clin Exp Ophthalmol. 2018 Nov;256(11):2083-2087. doi: 10.1007/s00417-018-4120-8. Epub 2018 Aug 31. PubMed PMID: 30171352.

PURPOSE: To study focal choroidal excavations in patients with Best vitelliform dystrophy using optical coherence tomography and their topographical relation with fibrotic pillars.

METHODS: This is a retrospective cross-sectional study of consecutive patients diagnosed with Best vitelliform dystrophy at a tertiary eye care center. Records of patients with Best vitelliform dystrophy were reviewed for best-corrected visual acuity, color fundus photographs, shortwave autofluorescence, optical coherence tomography, and electrooculogram with special emphasis on the presence of focal choroidal excavation (FCE) and fibrotic pillar. Main outcome measure was to study the fibrotic pillar in relation to the FCE.
RESULTS: Thirty-eight eyes of 19 patients with mean age of 34.6 years were enrolled in the study. FCE was seen in eight eyes of six patients. Two patients had bilateral FCE and all the FCEs were located in the area of vitelliform lesion. Six out of eight eyes with FCE were in vitelliruptive stage of disease; one was in pseudohypopyon stage and one in atrophic stage. A fibrotic pillar was seen lying directly above the FCE in seven eyes. In one eye, hyper-reflective material not amounting to fibrotic pillar was seen lying above the FCE.
CONCLUSION: A focal choroidal excavation in the setting of Best vitelliform dystrophy is seen predominantly in the vitelliruptive stage of the disease. Fibrotic pillars appear to play a role in the formation of these FCEs.

65: Kumar VL, Pandey A, Verma S, Das P. Protection afforded by methanol extract of Calotropis procera latex in experimental model of colitis is mediated through inhibition of oxidative stress and pro-inflammatory signaling. Biomed Pharmacother. 2019 Jan;109:1602-1609. doi: 10.1016/j.biopha.2018.10.187. Epub 2018 Nov 15. PubMed PMID: 30551414.

Calotropis procera, a latex producing plant is known to possess medicinal properties including its beneficial effect in gastrointestinal disorders. The anti-inflammatory effect of its latex in various experimental models is noteworthy and in light of this the present study was carried out with an objective to evaluate its efficacy in ulcerative colitis, an inflammatory condition of the colon. Colitis was induced in rats by acetic acid and the rats were divided into four groups where one group served as experimental control and the other groups were treated with two doses of methanol extract of dried latex of C. procera (MeDL; 50 and 150 mg/kg) and mesalazine (MSZ; 300 mg/kg). The study also included normal control (NC) group for comparison of various parameters related to colon like macroscopic changes, ulcer score, adherent mucus content, weight/length ratio, small intestinal transit, oxidative stress and inflammatory markers, tissue histology and immunoreactivity of cyclooxygenase-2 (COX-2), inducible nitric oxide synthase (iNOS) and nuclear factor kappa beta (NFκB) subunit p65. Treatment of colitic rats with MeDL produced a significant reduction in colonic mucosal damage as revealed by macroscopic and microscopic evaluation and normalization of tissue levels of oxidative stress markers and pro-inflammatory mediators. The protection afforded by MeDL was also evident from its restorative effect on tissue histology and expression of COX-2, iNOS and NFκB(p65). This study shows that by targeting oxidative stress and NFκB(p65) mediated pro-inflammatory signaling, the latex of C. procera affords protection in colitis and its effect was comparable to that of mesalazine. This study suggests that latex of C. procera could serve as a promising therapeutic option for treating inflammatory conditions of the colon.

66: Kumawat D, Kumar V. Double trouble: exudative hypertensive retinopathy in a patient with retinitis pigmentosa. BMJ Case Rep. 2018 Nov 8;2018. pii: bcr-2018-226950. doi: 10.1136/bcr-2018-226950. PubMed PMID: 30413460.

A young female suffering from chronic kidney disease presented with retinal features suggestive of retinitis pigmentosa (RP). Cystoid intraretinal changes were noted at the macula in both eyes on optical coherence tomography. Careful clinical examination and fluorescein angiography revealed disc oedema, macular hard exudates and flower petal leakage in both eyes. A clinical diagnosis of RP with leaking cystoid macular oedema (CMO) because of hypertensive retinopathy was made. Exudation and macular oedema subsided with hypertension control and posterior sub-Tenon steroid injection. Although CMO does not typically leak on fluorescein angiography in RP, this need not always be true. Clinical signs and

fluorescein angiography help in the differentiation of macular oedema when more than one aetiology may be responsible.

67: Kumawat D, Anjum S, Sahay P, Chawla R. Central serous chorioretinopathy in a patient of juxtapapillary excavation misdiagnosed as optic disc pit maculopathy. BMJ Case Rep. 2018 Nov 1;2018. pii: bcr-2018-226952. doi: 10.1136/bcr-2018-226952. PubMed PMID: 30389738.

A 29-year-old healthy man had blurring of vision in the left eye for the past 2 months and was referred for the surgical management of optic disc pit maculopathy. Colour fundus examination and optical coherence tomography (OCT) revealed a large deep retinochoroidal excavation close to the temporal edge of the optic disc with an isolated central neurosensory detachment at the macula with underlying multiple small pigment epithelium detachments in the absence of retinoschisis. Fundus fluorescein angiography (FFA) confirmed the presence of multi-focal leakage at the macula and pooling into subretinal space in the form of a 'smoke-stack'. A correct diagnosis of juxtapapillary excavation and central serous chorioretinopathy was made and lifestyle modifications were advised in view of the acute episode. The clinical signs, OCT and FFA feature helped in the differentiation and appropriate management of maculopathy in this case.

68: Lata S, Venkatesh P, Temkar S, Selvan H, Gupta V, Dada T, Upadhyay AD, Sihota R. COMPARATIVE EVALUATION OF ANTERIOR SEGMENT OPTICAL COHERENCE TOMOGRAPHY, ULTRASOUND BIOMICROSCOPY, AND INTRAOCULAR PRESSURE CHANGES AFTER PANRETINAL PHOTOCOAGULATION BY PASCAL AND CONVENTIONAL LASER. Retina. 2018 Nov 28. doi: 10.1097/IAE.0000000000002400. [Epub ahead of print] PubMed PMID: 30531420.

PURPOSE: To compare intraocular pressure, anterior segment optical coherence tomography, and ultrasound biomicroscopy parameters over 3 months after panretinal photocoagulation (PRP) for proliferative diabetic retinopathy after 1 of 2 sittings by conventional laser (half PRP) and a single sitting of Pattern Scan Laser (PASCAL) PRP.
METHODS: This was a prospective, randomized, interventional study. All tests were performed at baseline, and at 1, 6, and 24 hours, and 1, 4, 8, and 12 weeks after PRP.
RESULTS: The intraocular pressure at 1 hour and 6 hours after PRP was significantly raised in both groups. Mean intraocular pressure was 21.17 ± 4.01 mmHg after PASCAL and 17.48 ± 3 mmHg after conventional laser at 1 hour, $P < 0.001$. On anterior segment optical coherence tomography, conventional laser PRP caused a more significant narrowing of angle-opening distance (AOD750) and trabecular-iris space area (TISA 500), $P = 0.03$ and 0.04, respectively, on Day 1. Ultrasound biomicroscopy showed a significantly narrow angle in both groups on Day 1. A significant increase in ciliary body thickness was observed in both groups, with 57.1% of PASCAL and 100% of conventionally treated eyes showing ciliary effusion on Day 1 that decreased but persisted for the next 3 months.
CONCLUSION: Performing PRP in sittings, prescribing previous glaucoma medications in patients at risk, and recording intraocular pressure an hour after the PRP could decrease complications.

69: Madan K, Mittal S, Gupta N, Hadda V, Mohan A, Guleria R. Cryoprobe transbronchial lung biopsy: How we do it? Lung India. 2018 Nov-Dec;35(6):520-522. doi: 10.4103/lungindia.lungindia_52_17. PubMed PMID: 30381564; PubMed Central PMCID: PMC6219137.

Transbronchial lung biopsy (TBLB) is commonly utilized for diagnosis of diffuse parenchymal lung diseases. TBLB has a high yield in granulomatous interstitial lung diseases like sarcoidosis, but small size of biopsies limits its utility in idiopathic interstitial pneumonia. Surgical lung biopsy provides large size tissue, but there is associated morbidity, longer hospital stay, the risk of air leak, and mortality. Cryoprobe-TBLB, a relatively newer diagnostic procedure, provides larger biopsies than TBLB that are usually crush artifact free and

enable the pathologist to provide diagnosis with greater confidence. We describe our technique of performing cryoprobe-TBLB.

70: Maitra S, Som A, Bhattacharjee S. Accuracy of quick Sequential Organ Failure Assessment (qSOFA) score and systemic inflammatory response syndrome (SIRS) criteria for predicting mortality in hospitalized patients with suspected infection: a meta-analysis of observational studies. Clin Microbiol Infect. 2018 Nov;24(11):1123-1129. doi: 10.1016/j.cmi.2018.03.032. Epub 2018 Mar 29. PubMed PMID: 29605565.

OBJECTIVE: To identify sensitivity, specificity and predictive accuracy of quick sequential organ failure assessment (qSOFA) score and systemic inflammatory response syndrome (SIRS) criteria to predict in-hospital mortality in hospitalized patients with suspected infection.
METHODS: This meta-analysis followed the Meta-analysis of Observational Studies in Epidemiology (MOOSE) group consensus statement for conducting and reporting the results of systematic review. PubMed and EMBASE were searched for the observational studies which reported predictive utility of qSOFA score for predicting mortality in patients with suspected or proven infection with the following search words: 'qSOFA', 'q-SOFA', 'quick-SOFA', 'Quick Sequential Organ Failure Assessment', 'quick SOFA'. Sensitivity, specificity, area under receiver operating characteristic (ROC) curves with 95% confidence interval (CI) of qSOFA and SIRS criteria for predicting in-hospital mortality was collected for each study and a 2×2 table was created for each study.
RESULTS: Data of 406 802 patients from 45 observational studies were included in this meta-analysis. Pooled sensitivity (95% CI) and specificity (95% CI) of qSOFA ≥2 for predicting mortality in patients who were not in an intensive care unit (ICU) was 0.48 (0.41-0.55) and 0.83 (0.78-0.87), respectively. Pooled sensitivity (95% CI) of qSOFA ≥2 for predicting mortality in patients (both ICU and non-ICU settings) with suspected infection was 0.56 (0.47-0.65) and pooled specificity (95% CI) was 0.78 (0.71-0.83).
CONCLUSION: qSOFA has been found to be a poorly sensitive predictive marker for in-hospital mortality in hospitalized patients with suspected infection. It is reasonable to recommend developing another scoring system with higher sensitivity to identify high-risk patients with infection.

71: Malik R. Pediatric Inflammatory Bowel Disease in India: Time to Prepare for Challenges and Opportunities. Indian J Pediatr. 2018 Nov;85(11):959-960. doi: 10.1007/s12098-018-2778-x. Epub 2018 Sep 4. Review. PubMed PMID: 30182277.

72: Mishra S, Bhadoria AS, Kishore S, Kumar R. Gestational diabetes mellitus 2018 guidelines: An update. J Family Med Prim Care. 2018 Nov-Dec;7(6):1169-1172. doi: 10.4103/jfmpc.jfmpc_178_18. PubMed PMID: 30613492; PubMed Central PMCID: PMC6293929.

Gestational diabetes mellitus (GDM) has emerged as a global public health problem, both globally and in India. Despite government of India (GoI) prior mandate to screen all Indian pregnant women for GDM, its real operationalization at primary health-care level is suboptimal. Adding new operational component, GoI revised its existing recommendations and released new technical operational guidelines on GDM diagnosis and management in February 2018. The revised guideline highlights integration of two vertical programs, ensuring effective GDM service delivery to all antenatal women at every pause point of existing service delivery platform within public health system. However, its real success depends on knowledge and commitment level of health-care providers. Despite maternal and child health holding high public health relevance since long, community-level delivery of services still persists to be at high risk of fragmentation and inefficiency.

73: Mishra S, Roy TS, Wadhwa S. Morphological and morphometrical maturation of ventral cochlear nucleus in human foetus. J Chem Neuroanat. 2018 Nov;93:38-47. doi: 10.1016/j.jchemneu.2017.03.002. Epub 2017 Mar 21. PubMed PMID: 28341180.

Auditory impulses perceived by the hair cells of the organ of corti are relayed in the cochlear nucleus, the first relay station in the brainstem, by the cochlear nerve. The human foetus is well known to respond to sound during the last trimester of gestation. On the contrary, studies conducted in rat, cat and mouse have shown that these mammals have an immature auditory system at the time of birth. There are very few reports available regarding the morphological and functional maturation of the cochlear nucleus in human. Although the human cochlear nucleus neurons attain adult morphological characters by mid-gestation, there are hardly any studies discussing the functional maturation of the cochlear nucleus. Hence the present study was aimed at observing the morphological as well as functional maturation of the human foetal cochlear nuclei at various gestational ages. Morphological maturation was observed qualitatively while stereological estimation of the volume of well defined ventral cochlear nucleus (VCN) was calculated by the Cavalieri principle; neuronal count and density was estimated by dissector principle. The functional maturation was assessed by observing the expression of synaptophysin, a synaptic marker, at different gestational ages and by the presence of parvalbumin, a calcium binding functional neuronal marker by immunohistochemistry. Neurons showed coarse Nissl's substance and well developed cell processes and gradual increase in cell size by the 24th-30th gestational week. Synaptophysin labeling in the complete cochlear nucleus was observed at 20 weeks of gestation. Adult pattern of synaptophysin labeling was observed finally at37weeks of gestation. Earliest presence of parvalbumin expression was detected at 16 weeks of gestation and a distinct adult pattern was seen at 37 weeks of gestation. This study concluded that morphological and functional maturation of the human cochlear nuclei occurs simultaneously during mid-gestation which represents the critical period of development and continues up to term.

74: Mittal M, Yadav V, Khadgawat R, Kumar M, Sherwani P. Efficacy and Safety of 90,000 IU versus 300,000 IU Single Dose Oral Vitamin D in Nutritional Rickets: A Randomized Controlled Trial. Indian J Endocrinol Metab. 2018 Nov-Dec;22(6):760-765. doi: 10.4103/ijem.IJEM_84_18. PubMed PMID: 30766814; PubMed Central PMCID: PMC6330863.

Aim: To compare efficacy and safety of 90,000 IU versus 300,000 IU oral single dose vitamin D for treatment of nutritional rickets.
Study Design: Randomized controlled trial.
Setting: Tertiary care hospital.
Participants: One hundred ten children (6 months to 5 years, median age 10.5 months) with rickets. Exclusion criteria were disease affecting absorption, intake of calcium/vitamin D preparation in last 6 months, abnormal renal function, and rickets other than nutritional.
Intervention: Vitamin D3 as a single oral dose 90,000 IU (group A, n = 55) or 300,000 IU (group B, n = 55).
Methodology: Severity of rickets was scored on knee and wrist X-ray as per Thacher's radiographic score. Baseline serum levels of calcium, SAP, 25(OH)D, iPTH were measured. Follow up was done at 1 week, 4 weeks, and 12 weeks.
Outcome Variable: Primary - Radiographic score at 3 months. Secondary - Serum levels of 25(OH)D, SAP, and iPTH at 3 months, clinical and biochemical adverse effects.
Results: Eighty-six subjects (43 in each group) completed the study. The radiographic score reduced from 6.90 to 0.16 in group A and from 6.93 to 0.23 in group B. The levels of 25(OH)D, ALP, and PTH were similar between the groups at baseline and follow up. Hypercalciuria and hypercalcemia were seen more often in group B as was hypervitaminosis D. There were no clinical adverse events.
Conclusions: Single oral dose vitamin D3 90,000 IU is safe and effective in achieving healing of rickets.

75: Muliyil DE, Singh P, Jois SK, Otiv S, Suri V, Varma V, Abraham AM, Raut C, Gupta M, Singh MP, Viswanathan R, Naik S, Nag V, Benakappa A, Bavdekar A, Sapkal G, Singh K, Gupta N, Verma S, Santhanam S, Mishra S, Bhatnagar A, Prasad GRV,

Kolekar J, Raj N, Sabarinathan R, Sachdeva RK, George S, Chaudhary S, Verghese VP, Jagtap V, Bharadwaj M, Murhekar M. Sero-prevalence of rubella among pregnant women in India, 2017. Vaccine. 2018 Dec 18;36(52):7909-7912. doi: 10.1016/j.vaccine.2018.11.013. Epub 2018 Nov 15. PubMed PMID: 30448333.

BACKGROUND: We conducted a sero-survey among pregnant women attending antenatal clinics of six hospitals which also function as sentinel sites for CRS surveillance, to estimate the prevalence of IgG antibodies against rubella.
METHODS: We systematically sampled 1800 pregnant women attending antenatal clinics and tested their sera for IgG antibodies against rubella. We classified sera as seropositive (titre ≥10 IU/ml), sero-negative (titre <8 IU/ml) or indeterminate (titre 8-9.9 IU/ml) per manufacturer's instructions. In a sub-sample, we estimated the titers of IgG antibodies against rubella. IgG titer of ≥10 IU/mL was considered protective.
RESULTS: Of 1800 sera tested, 1502 (83.4%) were seropositive and 24 (1.3%) were indeterminate and 274 (15.2%) were sero-negative. Rubella sero-positivity did not differ by age group, educational status or place of residence. Three hundred and eighty three (87.8%) of the 436 sera had IgG concentrations ≥10 IU/mL.
CONCLUSION: The results of the serosurvey indicate high levels of rubella sero-positivity in pregnant women. High sero-prevalence in the absence of routine childhood immunization indicates continued transmission of rubella virus in cities where sentinel sites are located.

76: Naalla R, Chauhan S, Dave A, Singhal M. Reconstruction of post-traumatic upper extremity soft tissue defects with pedicled flaps: An algorithmic approach to clinical decision making. Chin J Traumatol. 2018 Dec;21(6):338-351. doi: 10.1016/j.cjtee.2018.04.005. Epub 2018 Nov 5. PubMed PMID: 30579714; PubMed Central PMCID: PMC6354178.

PURPOSE: Pedicled flaps are still the workhorse flaps for reconstruction of upper limb soft tissue defects in many centers across the world. They are lifeboat options for coverage in vessel deplete wounds. In spite of their popularity existing algorithms are limited to a particular region of upper limb; a general algorithm involving entire upper limb which helps in clinical decision making is lacking. We attempt to propose one for the day to day clinical practice.
METHODS: A retrospective analysis of patients who underwent pedicled flaps for coverage of post-traumatic upper extremity (arm, elbow, forearm, wrist & hand) soft tissue defects within the period of January 2016 to October 2017 was performed. Patients were divided into groups according to the anatomical location of the defects. The flaps performed for different anatomical regions were enlisted. Demographic data and complications were recorded. An algorithm was proposed based on our experience, with a particular emphasis made to approach to clinical decision making.
RESULTS: Two hundred and twelve patients were included in the study. Mean age was 27.3 years (range: 1-80 years), 180 were male, and 32 were female. Overall flap success rate was 98%, the following complications were noted marginal flap necrosis requiring no additional procedure other than local wound care in 32 patients (15%), partial flap necrosis requiring flap advancement or extra flap in 15 patients (7%), surgical site infection in 11 patients (5%), flap dehiscence requiring re-suturing in 5 patients (2.4%), total flap necrosis 4 patients (2%).
CONCLUSION: The proposed algorithm allows a reliable and consistent method for addressing diverse soft tissue defects in the upper limb with high success rate.



77: Nadella V, Singh S, Jain A, Jain M, Vasquez KM, Sharma A, Tanwar P, Rath GK, Prakash H. Low dose radiation primed iNOSâ€‰+â€‰M1macrophages modulate angiogenic programming of tumor derived endothelium. Mol Carcinog. 2018 Nov;57(11):1664-1671. doi: 10.1002/mc.22879. Epub 2018 Aug 10. PubMed PMID: 30035346.

Solid tumors are covered by stroma, which is hypoxic in nature and composed of various non-malignant components such as endothelial cells, fibroblasts, and pericytes that support tumor growth. Tumor stroma represents a mechanical barrier for tumor infiltration of CD8+ effector T cells in particular. In this context, our previous studies have demonstrated the therapeutic impact of Low-Dose Radiation (LDR)-primed and M1-retuned (iNOS+) peritumoral macrophages that produce inducible nitric oxide, have immunological roles on tumor infiltration of effector T cells, cancer-related inflammation, and subsequent tumor immune rejection in a mouse model of pancreatic cancer. These findings suggested a possible modification of tumor endothelium by LDR-primed macrophages. In line with these observations, here we demonstrate the influence of LDR in down-modulating HIF-1 in irradiated tumors in the course of polarization of irradiated tumor-associated macrophages toward an M1 phenotype. Furthermore, we demonstrate that M1 macrophages which are primed by LDR can directly influence angiogenic responses in eNOS+ endothelial cells which produce nitric oxide having both vascular and physiological roles. Furthermore, we demonstrate that naïve macrophages, upon differentiating to an M1 phenotype either by Th1 stimuli or LDR, potentially modify sphingosine-1-phosphate/VEGF-induced angiogenic signaling in tumor-derived endothelial cells with tumorigenic potential, thus indicating the significance of iNOS+ macrophages in modulating signaling in eNOS+ tumor-derived endothelium. Our study suggests that iNOS+ macrophages can activate tumor endothelium which may contribute to cancer-directed immunotherapy in particular.

78: Nakra T, Biswas R, Pandey R, Yadav R. Synchronous endometrioid carcinoma of the endometrium and small cell neuroendocrine carcinoma of the cervix: a rare combination. BMJ Case Rep. 2018 Nov 8;2018. pii: bcr-2018-227155. doi: 10.1136/bcr-2018-227155. PubMed PMID: 30413462.

Synchronous multiple primaries of female genital tract are uncommon, with the most frequently encountered combination being of endometrium and ovary. Concurrent primary tumours of endometrium and cervix are rare. We report a case of coexistent endometrioid carcinoma of the endometrium and small cell neuroendocrine carcinoma of the cervix in 48-year-old woman who presented with menometrorrhagia and was detected to have metastases to distant sites on imaging. She underwent multimodality treatment which resulted in a significant reduction in the tumour bulk.



79: Narain P, Pandey A, Gupta S, Gomes J, Bhatia R, Vivekanandan P. Targeted next-generation sequencing reveals novel and rare variants in Indian patients with amyotrophic lateral sclerosis. Neurobiol Aging. 2018 Nov;71:265.e9-265.e14. doi: 10.1016/j.neurobiolaging.2018.05.012. Epub 2018 May 17. PubMed PMID: 29895397.

Studies on genetic aberrations among Indian amyotrophic lateral sclerosis (ALS) patients are limited to C9orf72 and ATXN2 repeat expansions and mutations in the SOD1 gene. In this study, we used targeted next-generation sequencing to analyze 25 ALS-associated genes in a cohort of 154 Indian ALS patients. We identified known pathogenic mutations in SOD1 (G148D; H44R), TARDBP (M337V; N267S), DAO (R199Q), and ANG (K41I). In addition, we also identified 7 potentially pathogenic missense variants that have not been previously reported in ALS patients; this includes 3 novel variants (OPTN: K489E, DAO: E121K, and SETX: L2163V) that are not reported in large population databases and 4 rare variants (CHMP2B: E45K, SQSTM1: G262R and P438L, ERBB4: R103H) with a minor allele frequency of <0.01 in large population databases. All known pathogenic, novel, and rare variants were detected in only 1 ALS patient each with the exception of the OPTN (K489E) variant that was detected in 2 patients in our cohort. In sum, we identified known and potentially pathogenic novel and rare mutations in 14 (9.1%) ALS

patients in our cohort. This study represents the first comprehensive genetic analysis in the ethnically diverse population and thus provides a new insight into the genetics of Indian ALS patients.

80: Nath M, Halder N, Chandra P, Singh SB, Deorari AK, Kumar A, Velpandian T. Ocular kinetics and safety of intravitreally injected angiotensin converting enzyme inhibitor lisinopril. Int J Retina Vitreous. 2018 Nov 14;4:42. doi: 10.1186/s40942-018-0146-7. eCollection 2018. PubMed PMID: 30460043; PubMed Central PMCID: PMC6234689.

Background and objectives: The study investigated the intravitreal safety and vitreous disposition of lisinopril, an angiotensin converting enzyme inhibitor in rabbits for its projected use in retinopathy.
Methods: For the safety study, following the baseline ERG recording and fundus photography, 40 µg/50 µl of lisinopril sterile injection was injected unilaterally in the rabbit eyes (n = 4), where other eye served as a control. The electroretinogram and fundus images were obtained at 24, 48, 72 and 168 h following the intravitreal injection. For pharmacokinetics evaluation of the lisinopril, one eye of each rabbit (n = 4) received an intravitreal injection of lisinopril (40 µg/50 µl). The concentration of lisinopril in the ocular tissues, humours, plasma, lung, kidney and liver were measured through ESI-LC-MS/MS.
Results: Upon the electroretinography studies, no significant difference was observed in the ERG pattern in the lisinopril injected eye when compared to the baseline of the respective animals till the 7th day of the study. In the fundus imaging, no morphological changes were observed in the retina of the animal. The concentration of the lisinopril was found to be above to the IC50 in the retina-choroid till 36 h. The concentration found in the plasma and body tissues were many folds less than the IC50 of the lisinopril.
Conclusions: Intravitreal injection of 40 µg/50 µl of lisinopril found to be safe in the rabbit eye as evidenced by the electroretinography and fundus imaging studies. The average half-life of lisinopril is 12.6 h and the above-mentioned dose able to sustain its IC50 value till the 36 h.

81: Nyamathi AM, Carpenter CL, Ekstrand ML, Yadav K, Garfin DR, Muniz LC, Kelley M, Sinha S. Randomized controlled trial of a community-based intervention on HIV and nutritional outcomes at 6 months among women living with HIV/AIDS in rural India. AIDS. 2018 Nov 28;32(18):2727-2737. doi: 10.1097/QAD.0000000000002016. PubMed PMID: 30289802; PubMed Central PMCID: PMC6361536.

OBJECTIVE: To assess the impact of nurse-led Asha (Accredited Social Health Activist)-support behavioral and nutritional intervention among women living with HIV/AIDS (WLH/A) in rural India.
DESIGN: Cluster randomized controlled trial.
METHODS: Sixteen Primary Health Centers serving WLH/A in Andhra Pradesh were grouped into four regional clusters that were randomly allocated into one of four arms. All four groups included Asha-support and consisted of: Asha-support only (control group); nutrition education; nutrition supplementation; and the combination of supplementation and education. Differences between baseline and 6-month follow-up for key physiological outcomes (BMI, CD4 cell count) were analyzed using factorial mixed models that accounted for geographic clustering.
RESULTS: At 6 months, all groups improved CD4 cell count: Asha only [mean difference score (D) = 343.97, standard deviation (SD) = 106.94], nutrition education (D=356.15, SD=0.69), nutrition supplement (D=469.66, SD=116.0), and nutrition supplement and education (D=530.82, SD=128.56). In multivariable models, Asha-support and nutrition, and Asha-support and nutrition supplement interventions demonstrated independent significant improvements in CD4 cell count; the interaction term was significant [estimate=529.9; 95% confidence interval (CI) 512.0, 547.8; P=0.006]. BMI also increased for all groups: Asha only (D=0.95, SD=0.82), Asha and nutrition education (D=1.28, SD=0.53), Asha and nutrition supplement (D=2.38, SD=0.60), nutrition supplement, and nutrition supplement and education (D=2.72, SD=0.84).

Nutrition supplementation and nutrition education demonstrated independent effects on BMI; the interaction term was not significant (estimate=0.27; 95% CI=2.5, 2.7; P=0.80).
CONCLUSION: Interventions supported by community workers were efficacious at improving physiological outcomes and may be beneficial at meeting critical healthcare needs of vulnerable WLH/A in India.

82: Pal A, Pegwal N, Kaur S, Mehta N, Behari M, Sharma R. Deficit in specific cognitive domains associated with dementia in Parkinson's disease. J Clin Neurosci. 2018 Nov;57:116-120. doi: 10.1016/j.jocn.2018.08.016. Epub 2018 Aug 24. PubMed PMID: 30150061.

Impairment in different cognitive domains such as executive functions, language, memory and visuospatial skills occur frequently in Parkinson disease (PD) leading to significant disability and deterioration in quality of life. Heterogeneity of cognitive impairment enhances risk of developing dementia as disease progress. The objective is to explore the pattern of cognitive impairment with reference to the affected domains in PD with or without dementia relative to healthy controls. In this study, 110 PD patients and 26 healthy control were categorized into groups using Mini Mental State Examination and Clinical Dementia Rating scores as PD without dementia (PDND, n = 65; MMSE score >24; CDR = 0-1), PD with dementia (PDD, n = 45; MMSE score ≤24; CDR = 0.5-3) and healthy control (HC, n = 26; MMSE score >26; CDR = 0). Both Patients and controls underwent individual assessments of working memory, semantic memory, attention, language, executive functions, psychomotor and visuospatial skills and dementia using different cognitive function tests. Findings revealed lower scores of word memory, attention, psychomotor speed, visuospatial skills and executive functions in PDD compared to PDND. Interestingly, in PDD scores of picture memory, semantic memory and language functions were comparable with PDND. Compared to HC, PDND had no impairment in working memory, attention and executive functions, whereas PDD had lower scores in all the cognitive domains tested. Results indicate that the deficits in word memory, attention, psychomotor speed, visuospatial skills and executive functions distinguishes PDD from PDND. Impairment in specific cognitive domains may be a biomarker for predicting onset of dementia in Parkinson's disease.

83: Paliwal S, Chaudhuri R, Agrawal A, Mohanty S. Human tissue-specific MSCs demonstrate differential mitochondria transfer abilities that may determine their regenerative abilities. Stem Cell Res Ther. 2018 Nov 8;9(1):298. doi: 10.1186/s13287-018-1012-0. PubMed PMID: 30409230; PubMed Central PMCID: PMC6225697.

BACKGROUND: Recent studies have demonstrated mesenchymal stem cells (MSCs) as effective mitochondrial donors with therapeutic success in multiple experimental models of human disease. MSCs obtained from different tissue sources such as bone marrow (BM), adipose (AD), dental pulp (DP), and Wharton's jelly (WJ) are routinely used in clinical trials with no known study of their mitochondrial donor capacity. Here, we show for the first time that MSCs derived from different tissue sources have different mitochondrial donor properties and that this is correlated with their intrinsic respiratory states.
METHODS: MitoTracker®-labeled MSCs were co-cultured with Cell Trace-labeled U87-MG cells or rat cardiomyocytes. Mitochondrial transfer abilities of MSCs were assessed by using flow cytometry analysis and fluorescence imaging. Mitochondrial reactive oxygen species (mtROS) levels were analyzed by using MitoSOX red-based staining, and mitochondrial respiration parameters were analyzed by using a Seahorse XF Analyzer.
RESULTS: AD-MSCs and BM-MSCs displayed higher mitochondrial transfer than DP-MSCs and WJ-MSCs. Counterintuitively, DP-MSCs and WJ-MSCs were more effective in suppressing mtROS levels in stressed recipient cells than AD-MSCs or BM-MSCs. Interestingly, the oxygen consumption rates and intrinsic mitochondrial respiration parameters like ATP levels, basal and maximal respiration, and mitochondrial DNA copy number in donor MSCs showed a highly significant inverse

correlation with their mitochondrial donation.
CONCLUSIONS: We find that there are intrinsic differences in the mitochondrial respiration, donation capacity, and therapeutic efficacy among MSCs of different tissue origin. MSCs with high mitochondrial respiration capacities are associated with lower mitochondrial transfer but more effective suppression of mtROS in stressed recipient cells. This is most compatible with a model where recipient cells optimally regulate mitochondrial transfer such that they take more mitochondria from MSCs with lower mitochondrial function. Furthermore, it appears to be advantageous to use MSCs such as DP-MSCs or WJ-MSCs with higher mitochondrial respiratory abilities that achieved better therapeutic effect with lower mitochondrial transfer in our study. This opens up a new direction in stem cell therapeutics.

84: Pandey NN, Sharma A, Kumar S. Right coronary artery pseudoaneurysm post everolimus eluting stent implantation causing tamponade. BMJ Case Rep. 2018 Nov 8;2018. pii: bcr-2018-227714. doi: 10.1136/bcr-2018-227714. PubMed PMID: 30413467.

85: Pandey NN, Ganga KP, Kumar S. Peripherally inserted central catheter in the pulmonary artery: an innovative two-step approach to retrieval. BMJ Case Rep. 2018 Nov 28;11(1). pii: e228132. doi: 10.1136/bcr-2018-228132. PubMed PMID: 30567149.

86: Pandey SN, Iqbal N, Singh PK, Rastogi N, Kaur P, Sharma S, Singh TP. Binding and structural studies of the complexes of type 1 ribosome inactivating protein from Momordica balsamina with uracil and uridine. Proteins. 2019 Feb;87(2):99-109. doi: 10.1002/prot.25584. Epub 2018 Nov 5. PubMed PMID: 30007053.

Ribosome inactivating protein (RIP) catalyzes the cleavage of glycosidic bond formed between adenine and ribose sugar of ribosomal RNA to inactivate ribosomes. Previous structural studies have shown that RNA bases, adenine, guanine, and cytosine tend to bind to RIP in the substrate binding site. However, the mode of binding of uracil with RIP was not yet known. Here, we report crystal structures of two complexes of type 1 RIP from Momordica balsamina (MbRIP1) with base, uracil and nucleoside, uridine. The binding studies of MbRIP1 with uracil and uridine as estimated using fluorescence spectroscopy showed that the equilibrium dissociation constants (KD ) were 1.2×10-6 M and 1.4×10-7 M respectively. The corresponding values obtained using surface plasmon resonance (SPR) were found to be 1.4×10-6 M and 1.1×10-7 M, respectively. Structures of the complexes of MbRIP1 with uracil (Structure-1) and uridine (Structure-2) were determined at 1.70 and 1.98Å resolutions respectively. Structure-1 showed that uracil bound to MbRIP1 at the substrate binding site but its mode of binding was significantly different from those of adenine, guanine and cytosine. However, the mode of binding of uridine was found to be similar to those of cytidine. As a result of binding of uracil to MbRIP1 at the substrate binding site, three water molecules were expelled while eight water molecules were expelled when uridine bound to MbRIP1.

87: Parmar A, Kaloiya G. Comorbidity of Personality Disorder among Substance Use Disorder Patients: A Narrative Review. Indian J Psychol Med. 2018 Nov-Dec;40(6):517-527. doi: 10.4103/IJPSYM.IJPSYM_164_18. Review. PubMed PMID: 30533947; PubMed Central PMCID: PMC6241194.

Comorbidity of personality disorders (PDs) and substance use disorders (SUDs) is common in clinical practice. Borderline PD and antisocial PD are particularly found to be associated with SUDs. Our review suggests that the overall prevalence of PD ranges from 10% to 14.8% in the normal population and from 34.8% to 73.0% in patients treated for addictions. Even though the types of PD seen in patients with drug and alcohol use disorder are similar, the prevalence of any PD is higher among patients with drug use disorder than alcohol use disorder. The higher comorbidity between these two conditions has been explained by a primary

personality pathology followed by a secondary development of a SUD. The comorbidity with PD positively correlates with the severity of the SUD. Comorbid PD among patients with SUDs is a predictor of poor prognosis in terms of poorer treatment response and outcome. Psychotherapy is the mainstay of treatment in comorbid condition with dialectical behavioral therapy, dynamic deconstructive psychotherapy, and dual-focused schema therapy having the most evidence base. Pharmacotherapy is primarily indicated for the acute crisis management or for the treatment of other comorbid conditions such as psychosis and depression. However, the evidence is insufficient as of now to suggest one treatment over the other. Further research is required to identify more efficacious treatment approaches for this comorbidity.

88: Patel NK, Nivethitha L, Mooventhan A. Effect of a Yoga Based Meditation Technique on Emotional Regulation, Self-compassion and Mindfulness in College Students. Explore (NY). 2018 Nov;14(6):443-447. doi: 10.1016/j.explore.2018.06.008. Epub 2018 Aug 2. PubMed PMID: 30366832.

BACKGROUND: Emotion regulation is often a challenge for the college students. Yoga practice has been shown to reduce stress and improve mindfulness that is related to emotion regulation. Mastering emotions technique (MEMT) is one of the yoga-based meditation techniques that are designed to control emotions among practitioners. However, to the best of our knowledge, there is no known study reporting its scientific evidence-based effects on emotion and its related variables. Thus, this study was conducted to evaluate the effect of MEMT on emotion regulation, self-compassion, and mindfulness in college students.
MATERIALS AND METHODS: Seventy-two subjects with the age varied from 18 to 25 years were recruited from a residential college. All the subjects underwent MEMT for the duration of 45 min a day for a period of 2 weeks. Assessments such as Emotional Regulation Questionnaire (ERQ), The Positive and Negative Affect Schedule (PANAS), Self-Compassion Scale (SCS), and Mindful Attention Awareness Scale (MAAS) were taken before and after the intervention.
RESULTS: Results of this study showed a significant increase in the scores of cognitive reappraisal, positive affect, self-compassion, and MAAS along with a significant reduction in the scores of negative affect, and expressive suppression after the practice of MEMT compared to its respective baseline.
CONCLUSIONS: Results of this study suggest that practice of MEMT is effective in improving emotion regulation, positive affects, self-compassion, and mindfulness while in reducing negative affects among college students.

89: Pathania A, Kabra SK. Depression Among Caregivers of Children with Cystic Fibrosis: Causes and Solutions. Indian J Pediatr. 2018 Nov;85(11):955-956. doi: 10.1007/s12098-018-2763-4. Epub 2018 Aug 11. Review. PubMed PMID: 30099690.

90: Philis-Tsimikas A, Astamirova K, Gupta Y, Haggag A, Roula D, Bak BA, Fita EG, Nielsen AM, Demir T. Similar glycaemic control with less nocturnal hypoglycaemia in a 38-week trial comparing the IDegAsp co-formulation with insulin glargine U100 and insulin aspart in basal insulin-treated subjects with type 2 diabetes mellitus. Diabetes Res Clin Pract. 2019 Jan;147:157-165. doi: 10.1016/j.diabres.2018.10.024. Epub 2018 Nov 16. PubMed PMID: 30448451.

AIMS: To confirm non-inferiority of insulin degludec/insulin aspart (IDegAsp) once-daily (OD) versus insulin glargine (IGlar) U100 OD + insulin aspart (IAsp) OD for HbA1c after 26 weeks, and compare efficacy and safety between groups at W26 + W38.
METHODS: A 38-week, randomised, open-label, treat-to-target (HbA1c < 7.0%) trial in adults with type 2 diabetes mellitus (on basal insulin ± oral antidiabetic drugs; HbA1c 7.0-10.0%). Randomisation (1:1): IDegAsp or IGlar U100 + IAsp. Intensification to IDegAsp twice daily (BID) was permitted at W26 + W32, or with additional IAsp injections at W26 (maximum IAsp BID) or W32 (maximum IAsp three-times daily).
RESULTS: For W0-W26, mean percentage-change (standard deviation) HbA1c was:

IDegAsp, -1.1 (0.9); IGlar U100 + IAsp, -1.1 (0.8); estimated treatment difference: 0.07% (95% confidence interval [CI]: -0.06; 0.21) confirmed non-inferiority. At W26 and W38, target HbA1c achievement, and mean fasting and postprandial glucose were similar across groups. At W38, more subjects achieved target HbA1c without hypoglycaemia with IDegAsp (22.5%) than with IGlar U100 + IAsp (21.1%), with significantly fewer nocturnal episodes (W0-W38, estimated rate ratio: 0.61 [95% CI: 0.40; 0.93]). Safety profiles were similar across treatment groups throughout.
CONCLUSIONS: IDegAsp OD/BID are effective treatment intensification options versus multiple injection basal-bolus therapies, achieving similar glycaemic control, with significantly less nocturnal hypoglycaemia.

91: Phulware RH, Gupta B, Sahoo B, Agarwal S, Mathur S. Aspergillus thyroiditis: In an immunocompromised young adult. Diagn Cytopathol. 2019 Apr;47(4):362-364. doi: 10.1002/dc.24084. Epub 2018 Nov 29. PubMed PMID: 30499196.

92: Pietrzak B, Sharma V, Wasalathanthri D, Ellwanger JH, Sanganyado E, Buschke F, Beardsley FR, Agarwal D, Jensen MM, Easun TL, Lin H, Zhou K, Jordan EJ, Oda FS, MacKay H, Coffey E, Yoho R, Winter M. Nurturing connections to the environment. Science. 2018 Nov 23;362(6417):886-888. doi: 10.1126/science.aav9402. PubMed PMID: 30467153.

93: Pius AKA, Ray A. Factors influencing severe community-acquired pneumonia few points to ponder. Lung India. 2018 Nov-Dec;35(6):536-537. doi: 10.4103/lungindia.lungindia_282_18. PubMed PMID: 30381572; PubMed Central PMCID: PMC6219142.

94: Prabhakaran D, Jha D, Prieto-Merino D, Roy A, Singh K, Ajay VS, Jindal D, Gupta P, Kondal D, Goenka S, Jacob PD, Singh R, Prakash Kumar BG, Perel P, Tandon N, Patel V. Effectiveness of an mHealth-Based Electronic Decision Support System for Integrated Management of Chronic Conditions in Primary Care: The mWellcare Cluster-Randomized Controlled Trial. Circulation. 2018 Nov 10. doi: 10.1161/CIRCULATIONAHA.118.038192. [Epub ahead of print] PubMed PMID: 30586732.

BACKGROUND: The burden of noncommunicable diseases and their risk factors has rapidly increased worldwide, including in India. Innovative management strategies with electronic decision support and task sharing have been assessed for hypertension, diabetes mellitus, and depression individually, but an integrated package for multiple chronic condition management in primary care has not been evaluated.
METHODS: In a prospective, multicenter, open-label, cluster-randomized controlled trial involving 40 community health centers, using hypertension and diabetes mellitus as entry points, we evaluated the effectiveness of mWellcare, an mHealth system consisting of electronic health record storage and an electronic decision support for the integrated management of 5 chronic conditions (hypertension, diabetes mellitus, current tobacco and alcohol use, and depression) versus enhanced usual care among patients with hypertension and diabetes mellitus in India. At trial end (12-month follow-up), using intention-to-treat analysis, we examined the mean difference between arms in change in systolic blood pressure and glycated hemoglobin as primary outcomes and fasting blood glucose, total cholesterol, predicted 10-year risk of cardiovascular disease, depression score, and proportions reporting tobacco and alcohol use as secondary outcomes. Mixed-effects regression models were used to account for clustering and other confounding variables.
RESULTS: Among 3698 enrolled participants across 40 clusters (mean age, 55.1 years; SD, 11 years; 55.2% men), 3324 completed the trial. There was no evidence of difference between the 2 arms for systolic blood pressure (Δ=-0.98; 95% CI, -4.64 to 2.67) and glycated hemoglobin (Δ=0.11; 95% CI, -0.24 to 0.45) even after adjustment of several key variables (adjusted differences for systolic blood pressure: - 0.31 [95% CI, -3.91 to 3.29]; for glycated hemoglobin: 0.08 [95% CI, -0.27 to 0.44]). The mean withingroup changes in systolic blood pressure in

mWellcare and enhanced usual care were -13.65 mmHg versus -12.66 mmHg, respectively, and for glycated hemoglobin were -0.48% and -0.58%, respectively. Similarly, there were no differences in the changes between the 2 groups for tobacco and alcohol use or other secondary outcomes.
CONCLUSIONS: We did not find an incremental benefit of mWellcare over enhanced usual care in the management of the chronic conditions studied.
CLINICAL TRIAL REGISTRATION: URL: http://www.clinicaltrials.gov. Unique identifier: NCT02480062.

95: Prabhu M, Kumari G, Damle NA, Arora G, Tripathi M, Bal C, Kumar P, Kumar R. Comparability of Early Dynamic and Conventional Static Imaging With 18F-Fluorocholine PET/CT in a Patient With Primary Hyperparathyroidism. Clin Nucl Med. 2018 Nov;43(11):e400-e401. doi: 10.1097/RLU.0000000000002261. PubMed PMID: 30179914.

Recent studies have established the superiority of FCH PET/CT over MIBI scan in accurate preoperative localization of parathyroid adenomas. In this patient, we compared both early dynamic and conventional static imaging to see if early imaging could suffice. We describe a 15-year-old boy with primary hyperparathyroidism, in whom early dynamic FCH PET/CT was performed for 15 minutes after injection, followed by conventional static image at 60 minutes. Early dynamic images accurately localized the parathyroid adenoma. Also, higher SUVmax was observed on dynamic imaging when compared with conventional static images, but parathyroid-to-thyroid ratio was higher in the latter.

96: Priyadarshi M, Sankar MJ, Gupta N, Agarwal R, Paul V, Deorari A. Efficacy of daily supplementation of 800 IU vitamin D on vitamin D status at 6 months of age in term healthy Indian infants. J Perinatol. 2018 Nov;38(11):1566-1572. doi: 10.1038/s41372-018-0216-6. Epub 2018 Sep 5. PubMed PMID: 30185932.

OBJECTIVES: Most authorities recommend daily supplementation of 400 IU vitamin D for all term healthy neonates throughout infancy, however this dose was shown to be inadequate in an earlier study from our institution. We planned to evaluate if supplementation of 800 IU/day in term Indian infants would reduce the prevalence of vitamin D insufficiency (VDI) at 6 months of age.
METHODS: In a prospective study, we supplemented 800 IU/day of vitamin D in 70 term infants from birth till 6 months of age. Serum 25-hydroxy cholecalciferol [25(OH)D] was measured at birth and 6 months for all infants; and at 6, 10 and 14 weeks of age in subsets of 23 infants each. The primary outcome was prevalence of VDI (defined as serum 25(OH)D level < 50 nmol/L) at 6 months of age.
RESULTS: A total of 58 out of 70 (83%) infants were followed up until 6 months of age. The median (nmol/L; IQR) serum 25(OH)D at birth and 6 months of age was 25 (12.5-35) and 92.5 (72.5-137.5), respectively. The prevalence of VDI at birth was 91.3% (63/69), which reduced to 6.9% (4/58) at 6 months of age. However, four infants (6.9%, 95% CI 1.9-16.7) developed vitamin D excess (serum 25(OH)D 250-375 nmol/L) requiring reduction of the dose of supplementation. No infant developed vitamin D toxicity (serum 25(OH)D > 375 nmol/L).
CONCLUSIONS: Daily supplementation of 800 IU of vitamin D resulted in vitamin D sufficiency in most term healthy infants at 6 months of age but with potential risk of toxicity.

97: Pujari A, Agarwal D, Kumar Behera A, Bhaskaran K, Sharma N. Pathomechanism of iris sphincter tear. Med Hypotheses. 2019 Jan;122:147-149. doi: 10.1016/j.mehy.2018.11.013. Epub 2018 Nov 22. PubMed PMID: 30593400.

Traumatic iris sphincter tear has been thought to occur secondary to anteroposterior compression of the globe with defined forces lead to equatorial expansion and active pull along the corneoscleral junction and sphincter tear. However, here in this report, we elaborate the additional forces involved in the traumatic rupture of the sphincter pupillae muscle. During the anteroposterior compressive forces along the globe, the corneal deformation beyond certain limits leads to the development of sudden displacement forces within the anterior

chamber. Aqueous within it which is incontinuous circulation with a posterior narrow pupillary aperture as its entrance, find the path of least resistance that is along the pupillary orifices leading to anexpulsive drive to displace the fluid through this small aperture. During this process, the horizontally oriented mechanical stretching forces appear to be the main cause ofpupillary sphincter tear.

98: Pujari A, Sharma P, Phuljhele S, Kapoor S, Chawla R, Saxena R, Sharma N. Intraoperative optical coherence tomography-guided scleral suture passage while performing surgery on extraocular muscles. Indian J Ophthalmol. 2018 Nov;66(11):1654-1655. doi: 10.4103/ijo.IJO_769_18. PubMed PMID: 30355896; PubMed Central PMCID: PMC6213699.

99: Pujari A, Mukhija R, Chawla R, Phuljhele S, Saxena R, Sharma P. Smartphone-based evaluation of the optic nerve head. Indian J Ophthalmol. 2018 Nov;66(11):1617-1618. doi: 10.4103/ijo.IJO_394_18. PubMed PMID: 30355877; PubMed Central PMCID: PMC6213667.

100: Pujari A, Mukhija R, Urkude J, Singh R, Agarwal D, Sharma N. Intraoperative assessment of corneal injuries using microscope-integrated optical coherence tomography. Indian J Ophthalmol. 2018 Nov;66(11):1614-1615. doi: 10.4103/ijo.IJO_546_18. PubMed PMID: 30355875; PubMed Central PMCID: PMC6213671.

101: Quadri JA, Sarwar S, Sinha A, Kalaivani M, Dinda AK, Bagga A, Roy TS, Das TK, Shariff A. Fluoride-associated ultrastructural changes and apoptosis in human renal tubule: a pilot study. Hum Exp Toxicol. 2018 Nov;37(11):1199-1206. doi: 10.1177/0960327118755257. Epub 2018 Feb 14. PubMed PMID: 29441828.

The susceptibility of the kidneys to fluoride toxicity can largely be attributed to its anatomy and function. As the filtrate moves along the complex tubular structure of each nephron, it is concentrated in the proximal and distal tubules and collecting duct. It has been frequently observed that the children suffering from renal impairments also have some symptoms of dental and skeletal fluorosis. The findings suggest that fluoride somehow interferes with renal anatomy and physiology, which may lead to renal pathogenesis. The aim of this study was to evaluate the fluoride-associated nephrotoxicity. A total of 156 patients with childhood nephrotic syndrome were screened and it was observed that 32 of them had significantly high levels ( $p \leq 0.05$) of fluoride in urine (4.01 ± 1.83 ppm) and serum (0.1 ± 0.013 ppm). On the basis of urinary fluoride concentration, patients were divided into two groups, namely group 1 (G-1) ( n = 32) containing normal urine fluoride (0.61 ± 0.17 ppm) and group 2 (G-2) ( n = 32) having high urine fluoride concentration (4.01 ± 1.83 ppm). Age-matched healthy subjects ( n = 33) having normal levels of urinary fluoride (0.56 ± 0.15 ppm) were included in the study as control (group 0 (G-0)). Kidney biopsies were taken from G-1 and G-2 only, who were subjected to ultrastructural (transmission electron microscopy) and apoptotic (terminal deoxynucleotidyl transferase deoxyuridine triphosphate nick end labeling) analysis. Various subcellular ultrastructural changes including nuclear disintegration, chromosome condensation, cytoplasmic ground substance lysis, and endoplasmic reticulum blebbing were observed. Increased levels of apoptosis were observed in high fluoride group (G-2) compared to normal fluoride group (G-1). Various degrees of fluoride-associated damages to the architecture of tubular epithelia, such as cell swelling and lysis, cytoplasmic vacuolation, nuclear condensation, apoptosis, and necrosis, were observed.

102: Radhakrishnan DM, Ramanujam B, Srivastava P, Dash D, Tripathi M. Effect of providing sudden unexpected death in epilepsy (SUDEP) information to persons with epilepsy (PWE) and their caregivers-Experience from a tertiary care hospital. Acta Neurol Scand. 2018 Nov;138(5):417-424. doi: 10.1111/ane.12994. Epub 2018 Jul 9. PubMed PMID: 29984404.

OBJECTIVE: The primary objective of present study was to observe the effect of providing SUDEP (Sudden Unexpected Death in Epilepsy) information on drug

adherence in persons with epilepsy (PWE). We also looked at impact of disclosing SUDEP information on patient's quality of life and mood.
MATERIAL AND METHODS: This prospective study had a pretest/post-test design. A total of 231 consecutive PWE (>15 years) were enrolled. Of these 121 PWE received information about SUDEP in addition to standard epilepsy care. One hundred and ten PWE (control group) received routine standard epilepsy care but did not receive SUDEP information. Follow up assessment was done at 6 months. The primary outcome was a change in drug adherence (measured by Modified Morisky Medication Adherence Scale, MMAS) in PWE following disclosure of SUDEP information.
RESULTS: After 6 months, 116 PWE in the SUDEP information group and 106 in control group were available for follow up. A non-significant higher adherence was observed in the SUDEP information group as compared to the control group (Mean MMAS change 0.51 ± 1.66 vs 0.25 ± 1.26, P value = 0.194). No significant change was perceived in patient's anxiety and depression levels or quality of life in either group.
CONCLUSION: The present study suggests that providing information on SUDEP to PWE and their caregivers may increase drug adherence without adverse effect on quality of life or mood. Well-designed studies with high methodological quality are required to determine the precise effect size associated with disclosure of SUDEP information on drug adherence in PWE.

103: Rajagopal R, Pandey NN, Khurana R, Kumar S. Ebstein's anomaly with imperforate tricuspid valve: An extremely rare congenital anomaly. J Cardiovasc Comput Tomogr. 2018 Nov 10. pii: S1934-5925(18)30369-1. doi: 10.1016/j.jcct.2018.10.029. [Epub ahead of print] PubMed PMID: 30447948.

104: Rajagopal R, Sharma S. Comments to "Usefulness of Hydrogel-Coated Coils in Embolization of Pulmonary Arteriovenous Malformations". Cardiovasc Intervent Radiol. 2018 Nov;41(11):1807. doi: 10.1007/s00270-018-2013-1. Epub 2018 Jun 26. PubMed PMID: 29946939.

105: Ramadass S, Rai SK, Gupta SK, Kant S, Wadhwa S, Sood M, Sreenivas V. Prevalence of disability and its association with sociodemographic factors and quality of life in India: A systematic review. J Family Med Prim Care. 2018 Nov-Dec;7(6):1177-1184. doi: 10.4103/jfmpc.jfmpc_10_18. Review. PubMed PMID: 30613494; PubMed Central PMCID: PMC6293895.

Disability is complex, dynamic in nature, multidimensional, and most contested. Quality of life is an abstract concept that is related to the level of disability in the population. Approaches to measuring disability vary across different regions, and purpose and application of the findings. We systematically reviewed the studies that have been undertaken to study the prevalence of disability and its association with sociodemographic factors and quality of life among the general population in India, between January 2000 and June 2018. The prevalence of impairment ranged from 1.6% to 43.3%. In major surveys, males had higher impairment than females. Studies that used the International Classification of Functioning, Disability and Health concept for measuring disability reported prevalence ranging from 70.0% to 93.2%. Most studies used semi-structured questionnaires for measurement of disability. Some studies have used Barthel Index for Activity of Daily Living, Instrumental Activities of Daily Living, Indian Disability Evaluation and Assessment Schedule, Rapid Assessment of Disability scale, and Standard Health Assessment Questionnaire. The quality of life was low among females. This review brings out the heterogeneity in the concepts for measuring disability and quality of life. Lack of standardization in the measurement of disability restrains any comparison between these studies.

106: Ramanujam B, Dash D, Tripathi M. Can home videos made on smartphones complement video-EEG in diagnosing psychogenic nonepileptic seizures? Seizure. 2018 Nov;62:95-98. doi: 10.1016/j.seizure.2018.10.003. Epub 2018 Oct 3. PubMed PMID: 30316048.

PURPOSE: To assess the contribution home-videos made on mobile phones can make to

the diagnosis of Psychogenic Nonepileptic Seizures (PNES).
METHODS: Consecutive patients 10-50 years old, with episodes of altered behavior or abnormal movements, unresponsiveness, or falls, were recruited after they had obtained 'good' or 'fair' quality (quality of video scale (QOV)) home-videos of their episodes on personal mobile phones; these subjects underwent video-electroencephalography (VEEG). Diagnoses of PNES, other physiological events or epileptic seizure (ES) on home-videos (by the epilepsy fellow, step 1) and on VEEGs (by a fully trained epileptologist unaware of the home-video recording, step 2) were compared.
RESULTS: We screened 783 patients, and finally analyzed 269; 155 subjects had `fair' (QOV 5-7) and 114 had 'good'(QOV 8-10) quality home-videos. Concordance between steps 1 and 2 was seen in 261 of 269 (97.2%) subjects, and no significant difference was noted between the two modalities in diagnosing PNES. Differentiation between PNES, ES and other physiological events using home-videos was correct in 49.1% subjects if 532 (all subjects asked to make home-videos) and 70.7% if 369 (subjects with 'good' or 'fair' home videos), were used as denominators. Home-videos diagnosed PNES with the sensitivity of 95.4% (95% CI: 87.2%-99.1%), specificity of 97.5% (95% CI: 94.3%-99.2%), positive and negative predictive values of 92.65% (95% CI: 84.1%-96.8%) and 98.5% (95% CI: 95.6%-99.5%) respectively.
CONCLUSION: Home-videos of good quality can complement VEEG in diagnosing PNES in a cost-effective way and help initiate appropriate management.

107: Relan J, Gupta SK, Saxena A. Right superior caval vein to the left atrium in a child with vein of Galen malformation. Echocardiography. 2018 Nov;35(11):1868-1871. doi: 10.1111/echo.14165. Epub 2018 Oct 16. PubMed PMID: 30328159.

Vein of Galen malformation (VGM) is a rare intracranial vascular malformation. High output heart failure is common in infancy and is characterized by dilatation of all the cardiac chambers. We report an unusual case of VGM in a 3-month-old infant without dilatation of the right-sided cardiac chambers. We then demonstrate importance of comprehensive evaluation in detecting rare coexistence of anomalous right superior caval vein connection to the left atrium.

108: Rewari V, Ramachandran R, Pande A. Compression with the ultrasound probe to prevent malposition of central venous catheter in the ipsilateral internal jugular vein during axillary vein cannulation. J Clin Ultrasound. 2019 Feb;47(2):95-96. doi: 10.1002/jcu.22666. Epub 2018 Nov 25. PubMed PMID: 30474132.

109: Roy S, Yadav S, Dasgupta T, Chawla S, Tandon R, Ghosh S. Interplay between hereditary and environmental factors to establish an in vitro disease model of keratoconus. Drug Discov Today. 2019 Feb;24(2):403-416. doi: 10.1016/j.drudis.2018.10.017. Epub 2018 Nov 5. Review. PubMed PMID: 30408528.

Keratoconus (KC) is a bilateral corneal dystrophy and a multifactorial, multigenic disorder with an etiology involving a strong environmental component and complex inheritance patterns. The underlying pathophysiology of KC is poorly understood because of potential crosstalk between genetic-epigenetic variants possibly triggered by the environmental factors. Here, we decode the etiopathological basis of KC using genomic, transcriptomic, proteomic and metabolic approaches. The lack of relevant models that accurately imitate this condition has been particularly limiting in terms of the effective management of KC. Tissue-engineered in vitro models of KC could address this need and generate valuable insights into its etiopathology for the establishment of disease models to accelerate drug discovery.

110: Sadaf, Habib M, Khan MA, Najm MZ, Mallick MN, Sunita K, Shukla NK, Deo SVS, Husain SA. Hypermethylated LATS2 gene with decreased expression in female breast cancer: A case control study from North India. Gene. 2018 Nov 15;676:156-163. doi: 10.1016/j.gene.2018.07.033. Epub 2018 Jul 17. PubMed PMID: 30010037.

BACKGROUND: LATS2, a presumed tumor suppressor gene located on chromosome 13q11-12 is involved in cell growth related activity like regulation of cell cycle at G1/S. The reduced expression of LATS2 has been reported in many tumors; including tumors of Breast, which is to the best of our knowledge has not been studied in north Indian female breast cancer population.
OBJECTIVE: Here, we looked upon the expression pattern and methylation status of the LATS2 gene in north Indian female breast cancer cases to further strengthen its role as a tumor suppressor gene and more importantly as a cancer biomarker.
METHODS: mRNA expression level was determined by real time PCR in 140 Breast cancer patients, Protein expression was studied by Immunohistochemistry and Promoter methylation was studied by Methylation specific PCR. All findings were correlated with clinicopathological features.
RESULTS: LATS2 mRNA expression was remarkably downregulated in 67.85% (95/140) cases. The expression of Large Associated Tumor Suppressor 2 at protein level was also absent in 67.85% (95/140) cases. The absence of LATS2 protein strongly correlated with promoter hypermethylation where 91 out of a total of 107 hyper methylated cases showed absence of protein (91/107, 85%). The absence of LATS2 protein was strongly significant with HER2 neu status (0.01), TNM staging (0.009) and Molecular subtype (0.024).
CONCLUSION: The decreased expression in breast cancer seems to be associated with hypermethylation of LATS2 promoter regions. Further LATS2 as a tumor suppressor can be recognized as a promising Biomarker in Breast cancer pathogenesis. Though, further studies, targeting larger sets of breast cancer population are required to establish LATS2 as a promising biomarker.

111: Sahoo S, Padhy SK, Padhee B, Singla N, Sarkar S. Role of personality in cardiovascular diseases: An issue that needs to be focused too! Indian Heart J. 2018 Dec;70 Suppl 3:S471-S477. doi: 10.1016/j.ihj.2018.11.003. Epub 2018 Nov 8. Review. PubMed PMID: 30595309; PubMed Central PMCID: PMC6310178.

This review provides a broad overview of the relationship of personality with cardiovascular diseases (CVDs). There has been a sustained interest over the last half a century on the issue of relationship between personality traits and CVDs. Type A behavior was the initial focus of inquiry as it was observed that individuals who were competitive, hostile, and excessively driven were overrepresented among patients seeking treatment for CVDs and also were prone to develop coronary artery disease/syndrome. However, the research gradually expanded to assess the relationship of cardiac morbidity with various other personality facets. Furthermore, studies found out that negative effects (including anger and hostility) were also associated with adverse cardiovascular outcomes. Subsequently, a new personality entity named as the type D 'distressed' personality, which combined negative affectivity and social inhibition. type D personality then became the area of research and was demonstrated to be related with poorer cardiac outcomes. Interestingly, the results of various research studies are not equivocal, and hence, there are several critiques related to the current understanding of the link between personality construct and the risk of development as well as the outcome of CVDs. Furthermore, few personality traits such as optimism, conscientiousness, openness to experience, and curiosity have been found to be protective factors against development of CVDs and therefore are called 'cardioprotective' personality traits. A detailed discussion on the various aspects of personality in relation to CVDs along with a critical appraisal has been presented in this review.

112: Sakthivel P, Sikka K, Kakkar A, Kavutharapu S, Thakar A. Polypoidal Trachea: A Clinician's Predicament. Am J Med. 2019 Mar;132(3):e523-e524. doi: 10.1016/j.amjmed.2018.11.012. Epub 2018 Nov 30. PubMed PMID: 30503880.

113: Samaddar S, Sankar J, Kabra SK, Lodha R. Association of Fluid Overload with Mortality in Critically-ill Mechanically Ventilated Children. Indian Pediatr. 2018 Nov 15;55(11):957-961. PubMed PMID: 30587643.

OBJECTIVE: To study the association of fluid overload with mortality and

morbidity in critically-ill mechanically ventilated children.
DESIGN: Prospective observational study.
SETTING: Pediatric Intensive Care Unit (PICU) of a tertiary care hospital, New Delhi, India.
PARTICIPANTS: 118 children (age 1 mo - 15 y) requiring mechanical ventilation.
OUTCOME MEASURES: Primary: Association of fluid overload with mortality. Secondary: Association of fluid overload with oxygenation, organ dysfunction, duration of mechanical ventilation and PICU stay.
RESULTS: Cumulative fluid overload of ≥15% was observed in 74 (62.7%) children. About 50% of these children reached cumulative fluid overload of ≥15% within the first 5 days of PICU stay. The mortality was 40.5% in those with ≥15% cumulative fluid compared to 34% in the rest [OR (95% CI): 1.02 (0.97, 1.07)]. On multivariate analysis, after adjusting for confounders, cumulative fluid overload ≥15% was associated with higher maximum PELOD (pediatric logistic organ dysfunction) score (Median: 21 vs. 12; P = 0.03), longer median duration of mechanical ventilation (10 vs. 4 d; P <0.0001) and PICU stay (13.5 vs. 6 d; P <0.0001). There was no significant association of fluid overload with oxygenation index (P=0.32).
CONCLUSIONS: There is no association of fluid overload with mortality. However, it is associated with poor organ function, longer duration of mechanical ventilation and PICU stay in critically-ill, mechanically ventilated children.

114: Sankar J, Gulla KM, Kumar UV, Lodha R, Kabra SK. Comparison of Outcomes using Pediatric Index of Mortality (PIM) -3 and PIM-2 Models in a Pediatric Intensive Care Unit. Indian Pediatr. 2018 Nov 15;55(11):972-974. PubMed PMID: 30587646.

OBJECTIVE: To compare patient outcomes using the Pediatric Index of Mortality-3 (PIM-3) model with PIM-2 model for children admitted to the intensive care unit.
METHODS: We prospectively recorded the baseline characteristics, variables of PIM-3 and PIM-2 at admission, and outcomes of children ≤17 years over a period of 11 months. We used Area Under Receiver Operating Characteristics (AU-ROC) curves and Goodness-of-fit (GOF) tests to determine which of the two models had better discrimination and calibration.
RESULTS: Out of 202 children enrolled, 69 (34%) died. Sepsis and pneumonia were the common admitting diagnoses. The AU-ROC was better for PIM-3 (0.75) as compared to PIM-2 (0.69; P=0.001). The GOF-P value was 0.001 for both models, that indicated poor calibration of both (P<0.001). The AU-ROC curves were acceptable across different age and diagnostic sub-groups.
CONCLUSION: PIM-3 had better discrimination when compared to PIM-2 in our unit. Both models had poor calibration across deciles of risk.

115: Sarkar S, Lal R, Varshney M, Kumar S, Singh Balhara YP. Can Tramadol be Used for Maintenance Treatment of Opioid Dependence? Subst Use Misuse. 2019;54(3):506-513. doi: 10.1080/10826084.2018.1521427. Epub 2018 Nov 5. PubMed PMID: 30395757.

BACKGROUND: Certain limitations of the existing opioid substitution therapies necessitate exploration of other options for maintenance of patients with opioid dependence. This study aimed to present the experience of use of tramadol for long-term treatment of patients with opioid dependence.
METHODS: This was a cross-sectional interview-based observational study conducted in Uttar Pradesh state in India. Patients with opioid dependence who received oral tramadol treatment for a period of more than 6 months were recruited. Outcome was assessed in terms of self-reported abstinence on tramadol.
RESULTS: A total of 102 participants were recruited in the study, with a mean age of 41.3 years. All the participants were males. Abstinence to extraneous opioids was reported by 58.8% of the sample, and the median dose of tramadol at which abstinence was achieved was 350 mg/d. Those who reported to be taking natural opioids (raw opium or poppy husk) at the time of seeking treatment had higher rates of achieving abstinence.

CONCLUSIONS: Tramadol may be a possible option for the maintenance treatment among some opioid-dependent individuals. Further studies are required to establish its efficacy vis-à-vis other medications used in opioid substitution treatment.

116: Sebastian S, Malhotra R, Sreenivas V, Kapil A, Chaudhry R, Dhawan B. Utility of 16S rRNA PCR in the Synovial Fluid for the Diagnosis of Prosthetic Joint Infection. Ann Lab Med. 2018 Nov;38(6):610-612. doi: 10.3343/alm.2018.38.6.610. PubMed PMID: 30027708; PubMed Central PMCID: PMC6056385.

117: Selvan H, Gupta S. Cyclodialysis cleft repair: A multi-centred, retrospective case series-Comment. Clin Exp Ophthalmol. 2019 Mar;47(2):303. doi: 10.1111/ceo.13422. Epub 2018 Nov 28. PubMed PMID: 30345581.

118: Sen S, Singh P, Saini P, Desai A. Comment on: Evaluation of retinal nerve fiber layer thickness after optic canal decompression. Indian J Ophthalmol. 2018 Nov;66(11):1658-1659. doi: 10.4103/ijo.IJO_876_18. PubMed PMID: 30355901; PubMed Central PMCID: PMC6213661.

119: Shalimar, Rout G, Jadaun SS, Ranjan G, Kedia S, Gunjan D, Nayak B, Acharya SK, Kumar A, Kapil A. Prevalence, predictors and impact of bacterial infection in acute on chronic liver failure patients. Dig Liver Dis. 2018 Nov;50(11):1225-1231. doi: 10.1016/j.dld.2018.05.013. Epub 2018 May 28. PubMed PMID: 29910108.

BACKGROUND: Acute on chronic liver failure (ACLF) is associated with high short term mortality. We aimed to evaluate the prevalence, predictors and impact of bacterial infection in ACLF.
METHODS: Consecutive hospitalized patients with cirrhosis and acute decompensation (AD), from January 2011-March 2017, were included. Predictors of survival and infection were assessed.
RESULTS: 572 patients with cirrhosis and AD were classified into 3 groups - no infection (group 1, n = 190, 33.2%), infection at admission/within 48 h (group 2, n = 298, 52.1%) and infection after 48 h (group 3, n = 84, 14.7%). Higher frequency of organ failures - kidney, brain, circulation and respiratory failure - were seen in groups 2 and 3 as compared with group 1 ($P < 0.001$ for all). Most common site of infection was lungs, followed by spontaneous bacterial peritonitis and urinary tract infection. The frequency of infection increased with higher ACLF grades. Among ACLF patients, on Cox-proportional multivariate analysis, presence of infection was associated with significantly higher mortality [group 2 (HR 2.93; 95%CI, 1.97-4.38, $P < 0.001$) and group 3 (HR 1.84; 95%CI, 1.16-2.91, $P = 0.009$)], as compared with group 1. On multivariate logistic regression analysis, advanced hepatic encephalopathy and elevated total leucocyte count were independently associated with development of infection.
CONCLUSIONS: Infections are common in ACLF, and associated with poor outcome.

120: Sharma N, Singhal D, Maharana PK, Dhiman R, Shekhar H, Titiyal JS, Agarwal T. Phacoemulsification with coexisting corneal opacities. J Cataract Refract Surg. 2019 Jan;45(1):94-100. doi: 10.1016/j.jcrs.2018.09.015. Epub 2018 Nov 30. Review. PubMed PMID: 30509744.

The treatment of choice for cases of corneal opacity with significant cataract is often a triple procedure. However, in certain situations the chances of graft survival are poor, for example in cases with deep vascularization, secondary glaucoma, and healed viral keratitis. Under these circumstances, performing cataract surgery only might improve the visual acuity enough to maintain the patient's day-to-day activities. Performing cataract surgery, especially phacoemulsification, in these cases is challenging. Proper case selection, choosing the right technique, and a thorough idea about the difficulties and methods of tackling such cases is paramount to achieving optimum visual outcomes. In this review, we discuss the case selection and surgical modifications of performing phacoemulsification in cases with coexisting corneal opacities.

121: Sharma N, Singhal D, Maharana PK, Agarwal T, Sinha R, Satpathy G, Singh Bageshwar LM, Titiyal JS. Spectral Domain Anterior Segment Optical Coherence Tomography in Fungal Keratitis. Cornea. 2018 Nov;37(11):1388-1394. doi: 10.1097/ICO.0000000000001715. PubMed PMID: 30095493.

PURPOSE: To evaluate the use of spectral domain anterior segment optical coherence tomography (SD-ASOCT) in fungal keratitis.
METHODS: Fifty eyes of 50 patients with fungal keratitis were recruited. Serial ASOCT was performed on days 0, 7, 14, 21, 28, 42, and 56. Corneal thickness (CT) in the infiltrate area, infiltrate thickness (IT), and infiltrate width were measured at each follow-up. The presence of any specific feature on ASOCT was evaluated.
RESULTS: Mean CT and IT at presentation were 650.5 ± 108 µm and 401.1 ± 91 µm, which reduced significantly at each follow-up [on days 7, 14, 28, and 42; 626.8 ± 113 µm ($P < 0.001$) and 367.3 ± 94 µm ($P = 0.002$), 601.4 ± 109 µm and 344.7 ± 94 µm ($P < 0.001$), 544.8 ± 103 µm and 305.1 ± 80 µm ($P < 0.001$), and 522.8 ± 97 µm and 291.4 ± 79 µm ($P < 0.001$), respectively]. The mean CT and scar depth at complete healing were 496.3 ± 101 µm and 283.2 ± 77 µm, respectively. In 10/50 (20%) eyes, the posterior border of the cornea was not clearly visible because of posterior shadowing; therefore, IT was measured along the maximum visible area of hyperreflectivity, whereas CT was measured just adjacent to the area of shadowing. The infiltrate width was measured in 35 eyes, and the mean values at days 0, 7, 14, 28, 42, and 56 were 5.5 ± 0.8 mm, 4.6 ± 0.7 mm, 4.4 ± 0.6 mm, 4.2 ± 0.6 mm, 4.1 ± 0.6 mm, and 4.1 ± 0.6 mm, respectively. A satellite lesion and endothelial plaque were seen in 30% (15/50) and 44% (22/50) eyes, respectively.
CONCLUSIONS: ASOCT is a useful adjunct in monitoring fungal keratitis especially in cases with deep stromal involvement and endothelial plaques. In addition, it also provides insight into the activity of keratitis.

122: Sharma S, Wadhawan A, Rajan K. Combined endodontic therapy and peri-radicular regenerative surgery in the treatment of dens invaginatus type III associated with apicomarginal defect. J Conserv Dent. 2018 Nov-Dec;21(6):696-700. doi: 10.4103/JCD.JCD_311_18. PubMed PMID: 30546221; PubMed Central PMCID: PMC6249934.

Dens invaginatus (DI) is a dental developmental abnormality, probably resulting from an infolding of the dental papilla during tooth development. The following case report presents a case of Type III DI with apicomarginal defect and peri-radicular lesion, diagnosed with cone-beam computed tomography scan and treated with combined orthograde endodontic therapy and peri-radicular regenerative surgery. Follow-up examination at 2 years revealed uneventful healing and improvement in the status of the tooth-supporting structures.

123: Shukla G. Moving the clock on comprehensive post-surgical outcome assessment in specific etiological categories of epilepsy. Neurol India. 2018 Nov-Dec;66(6):1598-1600. doi: 10.4103/0028-3886.246222. PubMed PMID: 30504548.

124: Siddaiah A, Kant S, Haldar P, Rai SK, Misra P. Maternal health care access among migrant women labourers in the selected brick kilns of district Faridabad, Haryana: mixed method study on equity and access. Int J Equity Health. 2018 Nov 20;17(1):171. doi: 10.1186/s12939-018-0886-x. PubMed PMID: 30458803; PubMed Central PMCID: PMC6247702.

BACKGROUND: Socio-economic inequity leads to health inequity. Inequity is closely intertwined with internal migration. This study was planned with the objective of documenting the maternal health care utilization among women labourers working in brick kilns situated in an area of Haryana, north India.
METHODS: A community based mixed method study was done in select brick kilns of Faridabad district in north India. A mixed method study was done to assess maternal health care utilization in a sample of 500 women in the reproductive age group. Focus group discussions were also carried out. Descriptive analysis was

done. Qualitative data was analysed using the thematic framework approach. RESULTS: The mean age of the women was 30 (SD 0.3) years. Mean number of pregnancies per woman was 3.1 (SD 1.7). Only 22.9% ever had institutional delivery. About one third of women had ever received cash benefit under Janani SurakshaYojana (JSY) or had ever used free ambulance services. Seven major themes emerged from the qualitative analysis. Important themes include-Gaps in knowledge regarding local health system; Sub-standard private health care delivered at brick kilns prevent migrants from accessing the basic public health services; Misconceptions and mistrust about public health system influenced maternal health care utilization; Barriers to avail universal health coverage: location of brick kilns, time, apathy of public health system, partial health insurance cover. CONCLUSIONS: A typical migrant woman labourer in the brick kiln was an illiterate, had migrated from poor states, belonged to a socially disadvantaged community and worked long hours, and had been doing so for many years. This study has identified migrant women working in brick kilns as a vulnerable population subgroup in terms of maternal health utilization. To achieve universal health care it is important to understand the needs of all population subgroups and make concerted efforts at the health system level.

125: Sikary AK, Kumar M, Dhaka S, Subramanian A. A Rare Fatal Complication of Llizarov Procedure. J Forensic Sci. 2018 Nov;63(6):1895-1898. doi: 10.1111/1556-4029.13769. Epub 2018 Mar 1. PubMed PMID: 29494761.

Ilizarov process is used for the management of multiple fractures, polytrauma conditions, cosmetic limb lengthening, and fracture malunion. Complications associated with the process are nerve palsy, joint contracture, premature or delayed osseous consolidation, a nonunion and permanent stiffness of the joint, pin tract infection, edema, and transient paresthesia, etc. In our case, there was a fatal complication. A 25-year-old African lady underwent the Ilizarov procedure for femur lengthening in a hospital in New Delhi, India. During her first distraction process, she suddenly collapsed at the hospital and could not be revived. At postmortem, a small hematoma was seen around the surgically fractured area. On histopathology of internal organs, fat globules were present in the vasculature of brain and lungs. Cause of death was opined as due to fat embolism. This is the first case reported of a fatal fat embolism following Ilizarov procedure for limb lengthening in a healthy adult.

126: Singh A, Chirom AS, Mathur SR, Sharma SC. Secretory cervical schwannoma: first of its kind. BMJ Case Rep. 2018 Nov 12;2018. pii: bcr-2018-225222. doi: 10.1136/bcr-2018-225222. PubMed PMID: 30420559.

Schwannomas arising from cervical sympathetic chain are rare benign neoplasms which are slow growing, usually asymptomatic, biochemically non-secretory and functionally inactive tumours. We present a case of secretory schwannoma arising from the cervical sympathetic chain, causing hypertension and associated with raised urinary catecholamine degradation by-products. Transcervical excision of the tumour was followed by normalisation of blood pressure and urinary vanillylmandelic acid levels and pathologically the tumour was proved to be a schwannoma.

127: Singh G, K Ganguly K, Banerji M, Addlakha R, Shah U, Tripathi M, Saxena V, Vohra H, Wakankar Y, Sharma M, Radhakrishnan K. Marriage in people with epilepsy: A compelling theme for psycho-behavioral research. Seizure. 2018 Nov;62:127-130. doi: 10.1016/j.seizure.2018.08.005. Epub 2018 Aug 9. Review. PubMed PMID: 30122424.

People with epilepsy frequently experience problems in marriage including reduced marital prospects, poor marital outcomes and diminished quality of married life. Conversely, marriage might impact epilepsy self-management and quality of life in people with epilepsy. There is little in published literature on marriage and epilepsy, so there is a need for psycho-behavioral research. Here, we focus on arranged marriages which, although now rare in western cultures, are widely

prevalent in South Asian communities. Arranged marriages, in which families rather than individuals choose marital partners, are particularly problematic because epilepsy is frequently hidden during marital negotiations as well as later. From the psycho-behavioral perspective, marital prospects, outcomes and satisfaction should be examined in relation to the type of marriage (arranged vs. love) and whether or not epilepsy is hidden. Additionally, culturally-relevant tools to appraise marital quality and epilepsy self-management within marriage should be developed. The main objective should be to develop a multi-sectorial action plan with interventions at several different levels involving different stakeholders to mitigate stigma associated with epilepsy in matrimony.

128: Singh K, Khattar M, Kumar C. Disagreement: Should the duration of primary hyperparathyroidism impact guidelines for evaluation and treatment? Surgery. 2018 Nov 10. pii: S0039-6060(18)30718-9. doi: 10.1016/j.surg.2018.10.007. [Epub ahead of print] PubMed PMID: 30424923.

129: Singh MB. What should drive epilepsy research? Seizure. 2018 Nov;62:1-2. doi: 10.1016/j.seizure.2018.08.018. Epub 2018 Aug 24. PubMed PMID: 30176392.

130: Singh S, Kumar S, Sarkar S, Balhara YPS. Quality of Life and its Relationship with Perceived Stigma among Opioid Use Disorder Patients: An Exploratory Study. Indian J Psychol Med. 2018 Nov-Dec;40(6):556-561. doi: 10.4103/IJPSYM.IJPSYM_171_18. PubMed PMID: 30533952; PubMed Central PMCID: PMC6241192.

Background: In view of recent global opioid epidemic and scarcity of literature assessing the quality of life (QoL) and stigma among opioid use disorder (OUD) patients, this study aimed to assess the overall QoL and examine its relationship with perceived stigma among them.
Materials and Methods: This cross-sectional study assessed patients with OUD at a tertiary care centre. QoL was assessed using the World Health Organization Quality of Life-brief version, whereas perceived stigma was measured using the Perceived Stigma of Substance Abuse Scale (PSAS).
Results: Among 168 patients with OUD, all the four domain-wise scores of physical health ($r = 0.79$, $P < 0.01$), psychological health ($r = 0.87$, $P < 0.01$), social relationships ($r = 0.78$, $P < 0.01$) and environment ($r = 0.80$, $P < 0.01$) QoL correlated significantly with average score, with maximum impairment noted in the social domain. The mean PSAS score was $21.19 \pm 2.99$, with perceived stigma found to be significantly associated with impairments in the physical ($\beta = -0.28$, $P < 0.01$), psychological ($\beta = -0.27$, $P < 0.01$) and environment ($\beta = -0.21$, $P < 0.01$) domains of QoL. Furthermore, being employed was significantly associated with impairment in the social domain of QoL ($\beta = -0.17$, $P = 0.02$).
Conclusion: OUD similarly affects all the four domains of QoL, with a higher level of perceived stigma associated with significantly poorer QoL in the physical, psychological and environment domains. However, future studies assessing different forms of stigma and QoL among patients with OUD are needed to confirm and better characterise the findings of this study.

131: Sinha A, Puraswani M, Kalaivani M, Goyal P, Hari P, Bagga A. Efficacy and safety of mycophenolate mofetil versus levamisole in frequently relapsing nephrotic syndrome: an open-label randomized controlled trial. Kidney Int. 2019 Jan;95(1):210-218. doi: 10.1016/j.kint.2018.08.039. Epub 2018 Nov 26. PubMed PMID: 30497684.

Both levamisole and mycophenolate mofetil (MMF) prevent relapses in patients with frequently relapsing nephrotic syndrome; however, their efficacy has not been compared prospectively. This single-center, randomized, open-label trial enrolled 149 children ages 6-18 years with frequently relapsing or steroid-dependent nephrotic syndrome. Participants were randomized in a 1:1 ratio to receive therapy with MMF (750-1000 mg/m2 daily) or levamisole (2-2.5 mg/kg on alternate days) for 1 year; prednisolone was discontinued by 2-3 months. In intention-to-treat analyses, the frequency of relapse was similar between

participants treated with MMF and levamisole (mean difference -0.29 relapses/patient-year; 95% confidence interval -0.65, 0.08). Relapse rates declined to almost one-third of baseline for both treatment groups. Therapy with MMF was not superior to levamisole in terms of the proportions of participants with sustained remission (40.8% vs. 34.2%), frequent relapses (14.5% vs. 16.4%), or treatment failure, a composite outcome of frequent relapses, steroid resistance, or significant steroid toxicity (15.8% vs. 20.6%). These outcomes were also similar in time to event analyses. Changes in anthropometry and blood pressure were similar between the groups, and the rates of adverse effects were low in both groups. Flow cytometry in 32 participants demonstrated similar proportions of B cells and CD4+, CD8+, T helper (Th)1, Th2, Th17, and T regulatory (Treg) cells during follow-up. Therapy with MMF was not superior to levamisole in the frequency of relapses, likelihood of sustained remission or corticosteroid sparing in children with frequently relapsing or steroid-dependent nephrotic syndrome. Registration CTRI/2012/02/002394.

132: Sinha M, Pandey NN, Rajagopal R, Kumar S. Anomalous Superior Caval Drainage of the Great Cardiac Vein. Ann Thorac Surg. 2019 Mar;107(3):e211. doi: 10.1016/j.athoracsur.2018.09.042. Epub 2018 Nov 4. PubMed PMID: 30403978.

133: Sinha M, Rajagopal R, Pandey NN, Kumar S. Type 2 persistent fifth aortic arch: An elusive entity diagnosed on computed tomography angiography. J Cardiovasc Comput Tomogr. 2018 Nov 3. pii: S1934-5925(18)30318-6. doi: 10.1016/j.jcct.2018.11.002. [Epub ahead of print] PubMed PMID: 30415961.

134: Somashekar PH, Girisha KM, Nampoothiri S, Gowrishankar K, Devi RR, Gupta N, Narayanan DL, Kaur A, Bajaj S, Jagadeesh S, Lewis LES, Shailaja S, Shukla A. Locus and allelic heterogeneity and phenotypic variability in Waardenburg syndrome. Clin Genet. 2019 Mar;95(3):398-402. doi: 10.1111/cge.13468. Epub 2018 Nov 27. PubMed PMID: 30394532.

Waardenburg syndrome (WS) is a disorder of neural crest cell migration characterized by auditory and pigmentary abnormalities. We investigated a cohort of 14 families (16 subjects) either by targeted sequencing or whole-exome sequencing. Thirteen of these families were clinically diagnosed with WS and one family with isolated non-syndromic hearing loss (NSHL). Intra-familial phenotypic variability and non-penetrance were observed in families diagnosed with WS1, WS2 and WS4 with pathogenic variants in PAX3, MITF and EDNRB, respectively. We observed gonosomal mosaicism for a variant in PAX3 in an asymptomatic father of two affected siblings. For the first time, we report a biallelic pathogenic variant in MITF in a subject with WS2 and a biallelic variant in EDNRB was noted in a subject with WS2. An individual with isolated NSHL carried a pathogenic variant in MITF. Blended phenotype of NSHL and albinism was observed in a subject clinically diagnosed to have WS2. A phenocopy of WS1 was observed in a subject with a reported pathogenic variant in GJB2, known to cause isolated NSHL. These novel and infrequently reported observations exemplify the allelic and genetic heterogeneity and show phenotypic diversity of WS.

135: Soni S, Muthukrishnan SP, Sood M, Kaur S, Sharma R. Hyperactivation of left inferior parietal lobule and left temporal gyri shortens resting EEG microstate in schizophrenia. Schizophr Res. 2018 Nov;201:204-207. doi: 10.1016/j.schres.2018.06.020. Epub 2018 Jun 18. PubMed PMID: 29925477.

OBJECTIVE: The momentary spatial configuration of the brain electric field at the scalp reflects quasi-stable "functional microstates" caused by activity of different intracranial generators. There is paucity in literature on the intracranial generators of resting state EEG microstate alterations in stable patients with schizophrenia. The present study aimed to investigate resting state microstate alterations and their neural generators in patients with schizophrenia and their first-degree relatives as compared to healthy controls in an attempt to establish state and trait marker.
METHOD: Thirty-four patients with schizophrenia (DSM-5 criteria), 29 first-degree

relatives and 25 matched healthy controls participated in the study. Brain activity during eyes closed condition was recorded using 128 channel electroencephalography. Microstates were clustered into 5 maps across groups according to their topography. Microstate map parameters and their cortical sources were compared among groups.
RESULTS: Map 5 mean duration ($\chi 2(2) = 7.617$, $p = 0.022$) was significantly lower in patients compared to controls ($U = 256$, $p = 0.010$). Maximum activation was seen in left inferior parietal lobule (MNI coordinates: -65, -35, 25, Log-Fmax = 0.748). Suprathreshold cortical voxels with increased activations were found localized at left temporal gyri.
CONCLUSION: Hyperactivation in left inferior parietal lobule and temporal gyri might have shortened Map 5 duration at rest in patients with schizophrenia. This could imply microstate alterations as the potential state marker of schizophrenia.

136: Takia L, Jat KR, Mandal A, Kabra SK. Lymphangioleiomyomatosis (LAM) presenting as recurrent pneumothorax in an infant with tuberous sclerosis: treated successfully with sirolimus. BMJ Case Rep. 2018 Nov 8;2018. pii: bcr-2018-226244. doi: 10.1136/bcr-2018-226244. PubMed PMID: 30413450.

Lymphangioleiomyomatosis (LAM) either sporadic or a part of tuberous sclerosis complex is rare in paediatric age group. Here, we report a case of LAM with tuberous sclerosis in an infant. She was referred to our institute at the age of 4 months as a case of recurrent bilateral pneumothorax requiring intercostal tube drainage. Detailed history revealed that patient was symptomatic since 1 month of age in the form of seizures. She had respiratory symptoms for last 15 days. General physical examination revealed whitish macular patches. Brain imaging was suggestive of cortical tubers and subependymal nodules. The echocardiography showed right atrial rhabdomyoma. Chest CT revealed multiple cysts suggesting LAM. On the basis of above findings, a diagnosis of tuberous sclerosis complex with LAM was made. The infant was started on sirolimus and there was significant clinical and radiological improvement over a period of 2 and half years without any side effects.

137: Talwar S, Siddharth B, Gharde P, Choudhary SK. Total anomalous pulmonary venous connection with an intact interatrial septum. Ann Thorac Surg. 2018 Nov 23. pii: S0003-4975(18)31683-7. doi: 10.1016/j.athoracsur.2018.10.031. [Epub ahead of print] PubMed PMID: 30476472.
The presence of an interatrial communication is essential for adequate mixing and survival in total anomalous pulmonary venous connection. We report a 5-month-old infant with total anomalous pulmonary venous connection (cardiac type) without an interatrial communication and a large ventricular septal defect.

138: Tandon PN. Professor B. Ramamurthi (1922-2003): Personal reminiscences. Neurol India. 2018 Nov-Dec;66(6):1543-1549. doi: 10.4103/0028-3886.246297. PubMed PMID: 30504540.

139: Tewari N, Rajwar A, Mathur VP, Chaudhari PK. Oral features of Griscelli syndrome type II: A rare case report. Spec Care Dentist. 2018 Nov;38(6):421-425. doi: 10.1111/scd.12328. Epub 2018 Sep 12. PubMed PMID: 30207398.

Griscelli syndrome (GS) is an autosomal-recessive disorder of the vesicle transport and membrane trafficking system first identified by Griscelli et al in 1978. The three types of GS have specific genetic defects and systemic manifestations apart from classic partial pigmentary dilution, resulting in hypopigmentation of skin and silvery hair. GS-II occurs due to a defect in the Rab27a gene and is characterized by primary immune deficiency along with accelerated phases of a hemophagocytic lymphohistiocytosis (HLH) crisis. This rare disorder has been widely studied for dermatological, hematological, and neurological manifestations; however, the oral features and presentations have not been elucidated in detail. This report presents a case of a 4-year-old male with known mutation c.550C > T or p.R184X mutation (ENST00000396307) in Rab27a

with oral features.

140: Tomar GS, Mishra RK, Chaturvedi A. Glossopharyngeal vagal reflex: A matter of concern during neurosurgery. Neurol India. 2018 Nov-Dec;66(6):1822-1824. doi: 10.4103/0028-3886.246267. PubMed PMID: 30504592.

141: Turel MK, Tripathi M, Aggarwal A, Singla N, Ahuja CK, Takkar A, Mehta S, Garg K, Yadav R, Mehrotra A, Das KK. A summary of some of the recently published, seminal papers in neuroscience. Neurol India. 2018 Nov-Dec;66(6):1776-1792. doi: 10.4103/0028-3886.246289. PubMed PMID: 30504580.

142: Tyagi A, Pramanik R, Bakhshi R, Vishnubhatla S, Bakhshi S. Apoptosis: A biomarker of high-risk phenotype in pediatric acute myeloid leukemia? Int J Lab Hematol. 2019 Feb;41(1):141-147. doi: 10.1111/ijlh.12939. Epub 2018 Nov 1. PubMed PMID: 30383325.

INTRODUCTION: Dysregulation of apoptosis has been explored in acute myeloid leukemia (AML); yet, its correlation with clinical outcomes in pediatric AML is unknown. This study was aimed to analyze percentage of apoptosis and apoptosis mediated through the intrinsic pathway with clinical outcomes in patients with pediatric AML.
METHODS: This prospective study included pediatric AML patients enrolled from July 2013 to August 2016. Annexin-V (marker of total apoptosis) and caspase-9 expression (marker of intrinsic pathway) was determined in baseline bone marrow (BM) samples by flow cytometery and compared with controls (unaffected BM of solid tumors and peripheral blood [PB] of unaffected siblings). Overall survival (OS) and event-free survival (EFS) were compared using log-rank test.
RESULTS: A total of 151 AML patients were enrolled, median age 10 (range: 0.7-18 years). Annexin-V expression in blast cells was significantly high in AML patients as compared to BM of subjects with solid tumors (P = 0.01) and PB of healthy subjects (P = 0.04). Caspase-9 expression in blast cells was not significantly different. Median annexin-V expression was significantly higher in patients with WBC count ≥11 000/mm3 (P = 0.02), poor-risk cytogenetics (P = 0.02), the absence of RUNX1-RUNX1T1 translocation (P = 0.004), and the absence of NPM1 mutation (P = 0.05). Patients with high annexin-V expression had significantly inferior OS (P = 0.05) in univariate analysis but not in multivariate analysis (P = 0.32).
CONCLUSION: Apoptosis as a whole was found to be activated in baseline BM samples of AML patients. High apoptosis may be associated with high-risk phenotype in this disease.

143: Venkatesh P, Takkar B. Proposed Classification System for Retinal Capillary Angiomatosis. Ophthalmic Res. 2019;61(2):115-119. doi: 10.1159/000494498. Epub 2018 Nov 29. PubMed PMID: 30497078.

Retinal angiomas are rare tumors that develop within the vascular bed of the retina. Their occurrence may be sporadic or as part of the multisystem disorder called von Hippel-Lindau disease. It is well established in literature that retinal angiomas have a natural history of evolving as small aneurysmal dilatations and progressing to vision-threatening retinal detachments. Several approaches to the management of these angiomas have been reported in the literature, but it is difficult to decipher which modality is best suited for which type of angioma. A classification of retinal angiomas is proposed herein. A classification system may help in developing future guidelines for the study, screening, treatment, and prognostication of patients with retinal angiomas.

144: Vettakkara KMN, Banerjee S, Mittal A, Goel P, Kumar P, Baitha U, Jorwal P, Soneja M, Biswas A. Not so sweet; severe Sweet's syndrome presenting as SIRS and pleural effusion. J Family Med Prim Care. 2018 Nov-Dec;7(6):1584-1587. doi: 10.4103/jfmpc.jfmpc_289_18. PubMed PMID: 30613566; PubMed Central PMCID: PMC6293911.

Acute febrile neutrophilic dermatosis (Sweet's syndrome) is a rare inflammatory condition which presents as abrupt onset of painful erythematous plaques or nodules, often associated with fever and leucocytosis. Many extracutaneous manifestations are described in literature, but pulmonary manifestations and systemic inflammatory response syndrome (SIRS) are rare. Here we report a case of a 35-year-old male who presented with SIRS and pleural effusion. The presence of vesiculobullous and pustular skin lesions raised the suspicion of Sweet's syndrome and it was confirmed by skin biopsy. Initiation of systemic glucocorticoids lead to complete resolution of symptoms.

145: Vijay J, Sharma S, Kapil U, Bhadoria AS. Prevalence of goiter and associated factors among pregnant mothers residing in a district with poor socioeconomic status in Rajasthan state, India. J Family Med Prim Care. 2018 Nov-Dec;7(6):1334-1340. doi: 10.4103/jfmpc.jfmpc_150_18. PubMed PMID: 30613521; PubMed Central PMCID: PMC6293936.

Background: National survey documented that none of the Indian state is free from iodine deficiency (ID). Hence, the study was conducted with the objective to assess prevalence of goiter and associated factors among pregnant mothers (PMs) in a backward district of Indian state, Rajasthan.
Methods: A cross-sectional survey was conducted during January to March 2015. Multistage random sampling was utilized to select PMs. A total of 1,183 villages were enlisted with their respective population, and 30 villages were selected using population proportionate to size sampling. Subjects were included from a cluster till the numbers reached to 17. PMs were clinically examined for goiter by palpation method. Casual urine (n = 226) and salt samples (n = 220), were collected from a subgroup of subjects, and iodine concentrations were analyzed by using wet digestion and iodometric titration methods, respectively.
Results: The prevalence of goiter was found to be 14.2% (95% CI; 11.2-17.2). Goiter prevalence did not significantly differ with respect to trimesters of pregnancy (P = 0.09), iodine content in salt (P = 0.8), and urinary iodine concentrations (UIC, P = 0.69). The median UIC was 174 µg/L (IQR; 116-300 µg/L), which indicated adequate iodine intake. There was higher prevalence of goiter in PMs consuming salt with inadequate iodine than those with adequate, which was not significant (P = 0.8). Goiter prevalence was also insignificantly higher among PMs with UIC <150 µg/L than those with UIC ≥150 µg/L (P = 0.69).
Conclusion: The study population is in transition phase from mild ID (goiter prevalence 14.1%) to sufficiency (median UIC 174 µg/L).

146: Wei J, Anjana RM, Goenka S, Lobelo F, Shivashankar R, Kadir MM, Tandon N, Mohan V, Narayan KMV, Prabhakaran D, Ali MK. Physical activity, sitting, and risk factors of cardiovascular disease: a cross-sectional analysis of the CARRS study. J Behav Med. 2018 Nov 16. doi: 10.1007/s10865-018-9989-5. [Epub ahead of print] PubMed PMID: 30446920.

We aimed to estimate the associations between substituting 30-min/day of walking or moderate-to-vigorous physical activity (MVPA) for 30 min/day of sitting and cardiovascular risk factors in a South Asian population free of cardiovascular disease. We collected information regarding sitting and physical activity from a representative sample of 6991 participants aged 20 years and above from New Delhi, India and Karachi, Pakistan enrolled in 2010-2011 in the Center for cArdio-metabolic Risk Reduction in South Asia study using the International Physical Activity Questionnaire (short form). We conducted isotemporal substitution analyses using multivariable linear regression models to examine the cross-sectional associations between substituting MVPA and walking for sitting with cardiovascular risk factors. Substituting 30 min/day of MVPA for 30 min/day of sitting was associated with 0.08 mmHg lower diastolic blood pressure (β = -0.08 [-0.15, -0.0003]) and 0.13 mg/dl higher high-density lipoprotein cholesterol (β = 0.13 [0.04, 0.22]). Substituting 30 min/day of walking for 30 min/day of sitting was associated with 0.08 kg/m2 lower body mass index (β = -0.08 [-0.15, -0.02]), and 0.25 cm lower waist circumference (β = -0.25 [-0.39, -0.11]). In conclusion, substituting time engaged in more-active

pursuits for time engaged in less-active pursuits was associated with modest but favorable cardiovascular risk factor improvements among South Asians.

147: Yadav K, Pandav CS. National Iodine Deficiency Disorders Control Programme: Current status & future strategy. Indian J Med Res. 2018 Nov;148(5):503-510. doi: 10.4103/ijmr.IJMR_1717_18. Review. PubMed PMID: 30666977; PubMed Central PMCID: PMC6366256.

Iodine deficiency disorders (IDDs) constitute a significant public health problem globally. In India, the entire population is prone to IDDs due to deficiency of iodine in the soil of the sub-continent and thus both animal and plant source food grown on the iodine-deficient soil. IDDs encompass the spectrum of disability and disease and include goitre, cretinism, hypothyroidism, abortion, stillbirth, brain damage, learning disabilities, mental retardation, psychomotor defects, hearing and speech impairment. Iodine deficiency is known to be the single largest cause of preventable brain damage. IDDs with their causal association with brain development, cognition, and learning disabilities impair the human resource development and progress of the country. The children born in iodine-deficient regions on an average have 13.5 intelligence quotient (IQ) points lesser than children born in iodine-sufficient regions. IDD control programme in India is a public health success story, with 92 per cent of the population consuming iodized salt. The partnership between government agencies, academic institutions, salt industry, development agencies and civil society has been key to achieve this success story. The sustainable elimination of iodine deficiency in India is within reach, what is required is accelerated and coordinated effort by all key stakeholder at national and State level.