List of publications of AIIMS, New Delhi for the month of APRIL, 2016 [Source: www.pubmed.com].

1: Abbas MM, Govindappa ST, Sudhaman S, Thelma BK, Juyal RC, Behari M, Muthane UB. Early Onset Parkinson's disease due to DJ1 mutations: An Indian study. Parkinsonism Relat Disord. 2016 Nov;32:20-24. doi: 10.1016/j.parkreldis.2016.04.024. PubMed PMID: 27592010.

INTRODUCTION: Early Onset Parkinson's Disease (EOPD) is genetically heterogeneous. PARK2 mutations are the commonest cause of autosomal recessive EOPD followed by PINK1.DJ1 mutations is rare and there is scarce literature on its phenotype and long term outcome.
OBJECTIVES: We undertook a retrospective study to determine the prevalence of DJ1 mutation(s) in an Indian population and describe the clinical features and long term outcome of EOPD patients with these mutations.
METHODS: One hundred EOPD patients and 114 controls were evaluated. All the seven coding exons of DJ1 gene were screened for novel and reported mutations by PCR-Sanger sequencing.
RESULTS: A novel homozygous missense mutation (c.313 A > T, p. Ile105Phe) in exon 5 was seen in one patient and four unrelated patients had a homozygous missense single nucleotide variant rs71653619 (c.293 G > A, p.Arg98Gln). The clinical phenotype comprised of asymmetrical onset, slowly progressive Parkinsonism with levodopa induced motor restlessness in a patient with the novel mutation (c.313 A > T, p. Ile105Phe) while subjects with c.293 G > A, p.Arg98Gln had early onset levodopa responsive symmetrical Parkinsonism.
CONCLUSION: DJ1 mutations account for ~5% of EOPD patients from the Indian population. This study further adds to the clinical spectrum of EOPD with DJ1 mutations.

DOI: 10.1016/j.parkreldis.2016.04.024
PMID: 27592010 [PubMed - in process]

2: Agarwal KK, Seth R, Behra A, Jana M, Kumar R. 18F-Fluorodeoxyglucose PET/CT in Langerhans cell histiocytosis: spectrum of manifestations. Jpn J Radiol. 2016 Apr;34(4):267-76. doi: 10.1007/s11604-016-0517-7. Review. PubMed PMID: 26759026.

The objective of this article is to provide an illustrative tutorial highlighting the utility of 18F-FDG PET/CT imaging to detect the spectrum of manifestations in patients with Langerhans cell histiocytosis. FDG PET/CT is a powerful tool for making an early diagnosis; it allows higher diagnostic confidence with regard to lesions, measuring the extent of disease (staging) and assessing disease activity, and is consequently useful for evaluating the response to therapy in patients with Langerhans cell histiocytosis.

DOI: 10.1007/s11604-016-0517-7
PMID: 26759026 [PubMed - in process]

3: Aggarwal S, Das SN. Thiodigalactoside shows antitumour activity by beta-galactoside-binding protein and regulatory T cells inhibition in oral squamous cell carcinoma. Oral Dis. 2016 Jul;22(5):445-53. doi: 10.1111/odi.12479. PubMed PMID: 27004748.

OBJECTIVE: Thiodigalactoside (TDG), a synthetic inhibitor of β-galactoside-binding protein (β-GBP) suppresses tumour growth by inhibiting multiple cancer enhancing activities of β-GBP. Hence, we attempted to understand whether disruption of β-GBP functions and indirect inhibition of Treg cells by TDG affect the growth and establishment of oral cancer cells.
METHOD: The growth, morphology, cell cycle regulation, apoptosis induction and angiogenesis of oral cancer cell lines (SCC-4, SCC-9, SCC-25) via MACS-purified Treg cells were performed by MTT, propidium iodide (PI) staining, annexin-V-binding assay and ELISA respectively.
RESULTS: Treatment with β-GBP showed growth-promoting effects on Tregs and oral cancer cells. However, the treatment with its inhibitor TDG resulted in inhibition of Treg subsets and also decreased the frequency of IL10(+) and IL35(+) Tregs indicating its immunomodulatory effects. Additionally, TDG

treatment significantly (P < 0.001) inhibited the growth of OSCC cells with a concomitant induction of apoptosis, cell cycle arrest and anti-angiogenesis. CONCLUSION: It appears that TDG concurrently prevents many tumour-promoting effects of β-GBP in oral cancer cells possibly by Treg inhibition. This offers a preclinical proof of the concept that therapeutic targeting of β-GBP can overcome Treg -mediated tumour promotion and immunosuppression in oral cancer patients.

DOI: 10.1111/odi.12479
PMID: 27004748 [PubMed - in process]

4: Ahmad Z, Gupta AK, Sharma R, Bhalla AS, Kumar U, Sreenivas V. Dual energy computed tomography: a novel technique for diagnosis of gout. Int J Rheum Dis. 2016 Sep;19(9):887-96. doi: 10.1111/1756-185X.12874. PubMed PMID: 27125882.

AIM: To evaluate the sensitivity and specificity of dual energy computed tomography (DECT) for diagnosing gout compared with a composite gold standard (CGS) comprising joint aspiration and/or American College of Rheumatology clinico-radiographic criteria.
METHODS: Ninety patients of suspected gout underwent radiography and DECT of bilateral feet and knees. Radiographs and non-contrast CT (NCCT) were assessed for morphological characteristics, following which DECT was used to identify urate deposits.
RESULTS: With CGS as a reference (n = 90), sensitivity of radiographs was 15% (95% confidence interval [CI]: 6-27%) while specificity was 100% (95% CI: 90-100%). Sensitivity of NCCT was 26% (95% CI: 15-40%) while specificity was 97% (95% CI: 85-99%). Sensitivity of DECT was 82% (95% CI: 68-90%) while specificity was 89% (95% CI: 73-96%). Fifty-five patients underwent joint aspiration. Sensitivity and specificity of radiographs and NCCT with aspiration as a reference (n = 55) were not much different from that of CGS. However, DECT showed a higher sensitivity of 100% (95% CI: 86-100%) and a lower specificity of 48% (95%CI: 28-68%) with aspiration alone.
CONCLUSIONS: Dual energy computed tomography had higher sensitivity compared to conventional imaging with CGS as a reference; however, its specificity dropped with aspiration as a reference. It may be a useful adjunct for the diagnosis of gout, especially in the acute and inter-critical stage.

DOI: 10.1111/1756-185X.12874
PMID: 27125882 [PubMed - in process]

5: Anand LK, Goel N, Singh M, Kapoor D. Comparison of the Supreme and the ProSeal laryngeal mask airway in patients undergoing laparoscopic cholecystectomy: A randomized controlled trial. Acta Anaesthesiol Taiwan. 2016 Jun;54(2):44-50. doi: 10.1016/j.aat.2016.03.001. PubMed PMID: 27106162.

OBJECTIVE: The single-use LMA Supreme (Teleflex, Inc., Wayne, PA, USA) and the LMA ProSeal (Teleflex, Inc., Wayne, PA, USA) laryngeal mask airway (LMA) have similar characteristics. To date, studies have not achieved a consensus regarding the oropharyngeal leak pressure (OLP) of the LMA Supreme and LMA ProSeal, and there is little information on their efficacy in laparoscopic cholecystectomy. This study compared the safety and efficacy of the LMA Supreme and LMA ProSeal devices in patients undergoing laparoscopic cholecystectomy.
METHOD: Eighty-four eligible consenting patients were randomly allocated to the LMA Supreme group or the LMA ProSeal group. Both groups received the standard anesthesia technique. The Supreme or ProSeal LMA was inserted, the cuff was inflated to 60 cmH2O, and the LMA position was confirmed. Anesthesia was maintained using propofol and 50% oxygen in air. A gastric tube was inserted through the drain tube of the LMA to deflate the stomach, and the first attempt success rate and insertion time were recorded. During surgery, the intra-abdominal pressure was maintained at 12 mmHg. The fiberoptic view of the

larynx was determined by passing a flexible fiberoptic bronchoscope. The OLPs, success rate, insertion time, hemodynamic and respiratory parameters, and complications were recorded at different time points.
RESULTS: The mean OLP was significantly lower in the LMA Supreme group than in the LMA ProSeal group (24.9 ± 5.3 cmH2O vs. 28.4 ± 5.8 cmH2O; $p < 0.01$). The first attempt success rate and ease of insertion grading for LMA were higher in the Supreme group. The insertion time was lower in the Supreme group than in the ProSeal group ($p < 0.01$). The fiberoptic view was better with the ProSeal LMA. The hemodynamic and ventilatory parameters and postoperative sore throat were comparable in both groups.
CONCLUSION: The LMA ProSeal has a higher OLP than the LMA Supreme. The success rate of first attempt insertion and ease of insertion were better for the LMA Supreme group and the insertion time was lower in the LMA Supreme group. The Supreme and ProSeal LMAs were both effective for positive pressure ventilation in laparoscopic cholecystectomy.

DOI: 10.1016/j.aat.2016.03.001
PMID: 27106162 [PubMed - in process]

6: Ansari MT, Gautam D, Kotwal PP. Mother's fibula in son's forearm: use of maternal bone grafting for aneurysmal bone cyst not amenable to curettage - a case report with review of literature. SICOT J. 2016 Apr 20;2:18. doi: 10.1051/sicotj/2015043. PubMed PMID: 27163107; PubMed Central PMCID: PMC4849233.

It has always been a challenge to reconstruct large bone gaps. The aim of this case report is to highlight the success of homologous maternal bone grafting in a large cystic lesion. A six and half years old boy presented to us with an aneurysmal bone cyst (ABC) of the right radius, not amenable to curettage. We excised the lesion in toto, which created an 11 cm bone loss. Considering the age of the patient, we reconstructed the bone gap with maternal fibular graft. Accordingly, 12 cm of fibular graft was harvested and fashioned to fit into the bone gap. It was fixed with an intramedullary K-wire. No cancellous graft was used in the procedure. The limb was kept in the above elbow cast till incorporation of the fibula was noted on the radiographs. Six months following surgery the skiagram showed that the fibula was incorporated. Mobilization of the elbow and wrist was started along with strengthening of the forearm muscles. K-wire was removed at nine months. At the latest follow up of 24 months, the fibula is fully incorporated, the child regained full range of motion and strength of elbow. We discuss the techniques adopted in this particular case along with the review of literature.

DOI: 10.1051/sicotj/2015043
PMCID: PMC4849233
PMID: 27163107 [PubMed]

7: Bagchi S, Mittal P, Singh G, Agarwal SK, Singh L, Bhowmik D, Mahajan S, Dinda A. Pattern of biopsy-proven kidney disease in the elderly in a tertiary care hospital in India: a clinicopathological study. Int Urol Nephrol. 2016 Apr;48(4):553-60. doi: 10.1007/s11255-015-1193-8. PubMed PMID: 26759328.

BACKGROUND: An aging population is an important demographic issue in India. The knowledge base about kidney diseases among the elderly Indians is inadequate. We aim to delineate the clinical profile and spectrum of biopsy-proven kidney disease in elderly patients.
METHODS: Records of all elderly patients (≥60 years) who had undergone kidney biopsy in the nephrology department from January 2010 to December 2014 were reviewed. Their clinical details and laboratory investigations at the time of biopsy were noted. Details of kidney biopsy were recorded from their biopsy reports.
RESULTS: In total, 1728 patients underwent kidney biopsy during this period and 124 were elderly (7.2%). Their mean age was 64.9 ± 4.9 years, and they were predominantly males (63.7%). Mean serum creatinine was 3.0 ± 2.8 mg/dl,

proteinuria was 4.0 ± 2.7 g/day, and 39.5% had microscopic hematuria. The most common indications for biopsy were nephrotic syndrome (NS)--39.5% and acute kidney injury/rapidly progressive glomerulonephritis (AKI/RPGN)--24.2%. Another 8.1% patients had NS with AKI. MN (39.0%) was the chief cause of NS, and pauci-immune crescentic glomerulonephritis (GN) (28.2%) was the leading cause of AKI/RPGN. MN, pauci-immune crescentic GN and acute on chronic tubulointerstitial nephritis (A/CTIN) and acute tubular injury (ATI) were more common in the elderly, while MCD, FSGS, IgA nephropathy and lupus nephritis were more frequent in the younger patients. 68.5% of the elderly patients biopsied were diagnosed with a renal disease which was potentially amenable to specific treatment. CONCLUSION: The spectrum of biopsy-proven kidney disease in the elderly Indians seen in our tertiary care hospital varies from the younger population. Kidney biopsy provides useful information with therapeutic and prognostic implications in these patients. The percentage of elderly patients among the total biopsied population is low in India, and these patients present late with renal dysfunction. Prospective studies are needed to assess the outcome of the commonly seen kidney diseases in elderly patients.

DOI: 10.1007/s11255-015-1193-8
PMID: 26759328 [PubMed - in process]

8: Bandivadekar P, Agarwal T, Temkar S. Shave Excision With Keratopigmentation for Limbal Dermoid. Eye Contact Lens. 2016 Apr 6. [Epub ahead of print] PubMed PMID: 27058832.

OBJECTIVES: To describe a modified technique of corneal tattooing for concomitant cosmetic rehabilitation in eyes with limbal dermoid.
STUDY: Case series.
METHODS: Three patients between 12 and 20 years of age with grade I limbal dermoid underwent shave excision with corneal tattooing. All patients had dark brown irides. Chemical keratopigmentation was performed over the bed using 2% gold chloride with 1% hydrazine hydrate as reducing agent to yield a dark brown color. Bandage contact lens was applied.
RESULTS: Epithelium over the operated area healed by day 10. Visual acuity was maintained in all eyes with minimal change in keratometry. The dye was well retained in the tattooed area at 1 year. No complications such as infection, pseudopterygium, or local limbal stem-cell deficiency were observed.
CONCLUSION: Corneal tattooing along with simple shave excision provides good cosmetic results in cases of limbal dermoids.

DOI: 10.1097/ICL.0000000000000257
PMID: 27058832 [PubMed - as supplied by publisher]

9: Bansal P, Garg S, Sharma Y, Venkatesh P. Posterior Segment Drug Delivery Devices: Current and Novel Therapies in Development. J Ocul Pharmacol Ther. 2016 Apr;32(3):135-44. doi: 10.1089/jop.2015.0133. PubMed PMID: 26811883.

Ocular drug delivery by conventional routes of administration does not maintain therapeutic drug concentrations in the target tissues for a long duration because of various anatomical and physiological barriers. Treatment of diseases of the posterior segment of the eye requires novel drug delivery systems that can overcome these barriers for efficacious delivery, provide controlled release for the treatment of chronic diseases, and increase patient's and doctor's convenience to reduce the dosing frequency and associated side effects. Thereby, an increasing number of sustained-release drug delivery devices using different mechanisms have been developed. This article discusses various current and future sustained-release drug delivery systems for the posterior segment disorders.

DOI: 10.1089/jop.2015.0133
PMID: 26811883 [PubMed - in process]

10: Batra A, Kain R, Kumari M, Paul R, Dhawan D, Bakhshi S. Parents' Perspective of Quality of Life of Retinoblastoma Survivors. Pediatr Blood Cancer. 2016 Jul;63(7):1287-9. doi: 10.1002/pbc.25982. PubMed PMID: 27038275.

Health-related quality of life (HRQOL) in retinoblastoma survivors was assessed using parent proxy report of PedsQL(TM) 4.0 generic core scale. One hundred twenty-two parents of retinoblastoma survivors filled the questionnaire satisfactorily. This was compared with parent-reported HRQOL of 50 siblings. The median age of survivors was 98 (range, 60-247) months and male:female ratio was 2:1. The overall parent-reported HRQOL was significantly worse in survivors as compared to controls (74.4 ± 8.5 vs. 85.1 ± 4.6, P < 0.001). All health domains were significantly affected when compared with controls. None of the baseline and treatment-related factors predicted HRQOL.

DOI: 10.1002/pbc.25982
PMID: 27038275 [PubMed - in process]

11: Batra A, Patekar M, Bakhshi S. Short stature in retinoblastoma survivors: a cross-sectional study of 138 patients. Clin Transl Oncol. 2016 Apr;18(4):381-4. doi: 10.1007/s12094-015-1380-1. PubMed PMID: 26286069.

PURPOSE: Short stature has been reported in pediatric cancer survivors. Data on retinoblastoma survivors are limited. We conducted a cross-sectional study to assess the height in retinoblastoma survivors.
METHOD: The recorded height was compared with median height for age and sex as per the Indian Academy of Pediatrics. Z-score less than -2 was considered short statured.
RESULT: Thirty percent of the survivors were short statured. The mean height was shorter than the mean 50th percentile height (119.7 ± 14.8 vs 128.7 ± 15 cm, p < 0.001). Previous chemotherapy showed a trend toward association (p = 0.09).
CONCLUSION: Short stature affects a significant number of retinoblastoma survivors.

DOI: 10.1007/s12094-015-1380-1
PMID: 26286069 [PubMed - in process]

12: Bhari N, Mahajan R, Gupta S. Early leonine facies with alopecia in a young man. Int J Dermatol. 2016 Dec;55(12):1299-1300. doi: 10.1111/ijd.13300. PubMed PMID: 27060852.

13: Bhari N, Jangid BL, Singh S, Mittal S, Ali F, Yadav S. Urethrocutaneous fistula: a rare presentation of penile tuberculosis. Int J STD AIDS. 2016 Apr 22. pii: 0956462416647624. [Epub ahead of print] PubMed PMID: 27105661.

A man in his 50s presented with two urethrocutaneous fistulae with intermittent dribbling of urine from the opening of fistula on the surface of glans penis. A skin biopsy from indurated margin of fistula was suggestive of fibrosing granulomatous reaction. Anti-tubercular therapy was given with a diagnosis of penile tuberculosis and there was 50% improvement within two months of treatment.

DOI: 10.1177/0956462416647624
PMID: 27105661 [PubMed - as supplied by publisher]

14: Bherwani S, Saumya AS, Ahirwar AK, Sandhya AS, Prajapat B, Patel S, Singh R, Ghotekar LH. The association of folic acid deficiency and diabetic nephropathy in patients with type 2 diabetes mellitus. Endocr Metab Immune Disord Drug Targets. 2016 Apr 15. [Epub ahead of print] PubMed PMID: 27087197.

INTRODUCTION: Diabetic Mellitus is the chronic metabolic illness characterised by hyperglycemia and various complications of heart, eyes, nerves, kidney etc. Diabetic Nephropathy is the leading causes of morbidity and mortality in diabetic patient. We hypothesized that decrease serum folic acid levels associated with

Diabetic Nephropathy.
MATERIALS AND METHOD: Our study population consist of 100 subjects out of which 50 cases of Diabetes Mellitus without Diabetic Nephropathy and 50 cases of Diabetes Mellitus with Diabetic Nephropathy. We measured various routine lab parameters, apart from it, we measured spot urinary albumin to creatinine ratio to assess diabetic nephropathy and we used chemiluminesence based immunoassay to measure serum folic acid.
RESULT: Serum folic acid in the group with nephropathy was significantly lower than that of the group without nephropathy (4.9 ± 0.4 ng/dl) vs (6.8 ± 0.5 ng/dl) p = 0.05. We found that serum folic acid was negatively correlated with spot urinary albumin ratio and on multivariate logistic regression analysis we found that decrease in folic acid significantly ($p < 0.05$) increases the chances of diabetes with nephropathy by 19.9 %.
CONCLUSION: Our study tilt toward the deficiency of serum folic acid levels in diabetes mellitus patient with nephropathy. So if we would correct folic acid deficiency in diabetic patient then we could prevent the development of various complication associated with diabetes and help in reducing the morbidity and mortality of diabetic patient.

PMID: 27087197 [PubMed - as supplied by publisher]

15: Birla S, Khadgawat R, Jyotsna VP, Jain V, Garg MK, Bhalla AS, Sharma A. Identification of novel GHRHR and GH1 mutations in patients with isolated growth hormone deficiency. Growth Horm IGF Res. 2016 Aug;29:50-6. doi: 10.1016/j.ghir.2016.04.001. PubMed PMID: 27114065.

OBJECTIVE: Human growth is an elementary process which starts at conception and continues through different stages of development under the influence of growth hormone (GH) secreted by the anterior pituitary gland. Variation affecting the production, release and functional activity of GH leads to growth hormone deficiency (GHD), which is of two types: isolated growth hormone deficiency (IGHD) and combined pituitary hormone deficiency (CPHD). IGHD may result from mutations in GH1 and GHRHR while CPHD is associated with defects in transcription factor genes PROP1, POU1F1 and HESX1. The present study reports on the molecular screening of GHRHR and GH1 in IGHD patients.
METHODS: A total of 116 clinically diagnosed IGHD patients and 100 controls were enrolled for the study after taking informed consent. Family history was noted and 5ml blood sample was drawn. Anatomical and/or morphological pituitary gland alterations were studied using magnetic resonance imaging (MRI). DNA from blood samples was processed for screening the GHRHR and GH1 by Sanger sequencing.
RESULTS: Mean age at presentation of the 116 patients (67 males and 49 females) was 11.71±3.5years. Mean height standard deviation score (SDS) and weight SDS were -4.5 and -3.5 respectively. Nine (7.8%) were familial and parental consanguinity was present in 21 (19.8%) families. Eighty-three patients underwent MRI and morphological alterations of the pituitary were observed in 39 (46.9%). GH1 and GHRHR screening revealed eleven variations in 24 (21%) patients of which, four were novel deleterious, one novel non-pathogenic and six reported changes.
CONCLUSIONS: GHRHR contributed more to IGHD in our patients which confirmed that GHRHR should be screened first before GH1 in our population. Identification of GH1 and GHRHR variations helped in defining our mutational spectrum which will play a crucial role in providing predictive and prenatal genetic testing to the patients.

DOI: 10.1016/j.ghir.2016.04.001
PMID: 27114065 [PubMed - in process]

16: Biswas A, Julka PK. Bleomycin induced flagellate erythema in a patient with thalamic mixed germ cell tumour: Report of a rare adverse effect. J Egypt Natl Canc Inst. 2016 Jun;28(2):129-32. doi: 10.1016/j.jnci.2016.04.002. PubMed PMID: 27106629.

Bleomycin induced flagellate dermatitis is an uncommon and unique adverse effect. With the declining use of bleomycin, this complication is becoming increasingly infrequent in day-to-day clinical practice. We herein describe a case of a 13year old male patient with left thalamic mixed germ cell tumour treated by multimodality approach, who developed flagellate erythema after two cycles of combination chemotherapy with bleomycin, etoposide and cisplatin (BEP). This brief report highlights the importance of awareness and timely identification and management of this dermatological toxicity in patients undergoing bleomycin based combination chemotherapy.

DOI: 10.1016/j.jnci.2016.04.002
PMID: 27106629 [PubMed - in process]

17: Chandra PS, Tripathi M. Letter to the Editor: Endoscope-assisted hemispherotomy and corpus callostomy. J Neurosurg Pediatr. 2016 Jul;18(1):141-4. doi: 10.3171/2015.12.PEDS15681. PubMed PMID: 27035546.

18: Charan K, Goyal A, Gupta JK, Yadav HN. Role of atrial natriuretic peptide in ischemic preconditioning-induced cardioprotection in the diabetic rat heart. J Surg Res. 2016 Apr;201(2):272-8. doi: 10.1016/j.jss.2015.10.045. PubMed PMID: 27020807.

BACKGROUND: It has been noted that nitric oxide (NO) is involved in the ischemic preconditioning (IPC)-mediated cardioprotection. Diabetes is a downregulator of atrial natriuretic peptide (ANP), resulting in low expression of endothelial nitric oxide synthase (eNOS) by which NO level get reduced. The purpose of the present study was to investigate the role of ANP in attenuated cardioprotective effect of IPC in the diabetic rat heart.
METHODS: The heart was isolated from the diabetic rat and mounted on Langendorff's apparatus, subjected to 30-min ischemia and 120-min reperfusion. IPC was mediated by four cycles of 5-min ischemia and 5-min reperfusion. The infarct size was estimated using triphenyltetrazolium chloride stain, and coronary effluent was analyzed for lactate dehydrogenase and creatinine kinase-MB release to assess the degree of myocardial injury. The cardiac release of NO was estimated indirectly by measuring the release of nitrite in coronary effluent.
RESULTS: IPC-mediated cardioprotection was significantly attenuated in the diabetic rat as compared with the normal rat. Perfusion of ANP (0.1 μM/L) in the diabetic rat heart significantly restored the attenuated cardioprotective effect of IPC and also increased the release of NO. However, this observed cardioprotection was significantly attenuated by perfusion of N-nitro L-arginine methyl ester, an eNOS inhibitor (100 μM/L) noted in terms of increase in myocardial infarct size, release of lactate dehydrogenase and creatinine kinase-MB, and also decreases in release of NO.
CONCLUSIONS: Thus, it is suggested that ANP restores the attenuated cardioprotective effect in the diabetic heart which may be due to increase in the expression of eNOS and subsequent increase in the activity of NO.

DOI: 10.1016/j.jss.2015.10.045
PMID: 27020807 [PubMed - indexed for MEDLINE]

19: Chaudhury S, Sharma V, Kumar V, Nag TC, Wadhwa S. Activity-dependent synaptic plasticity modulates the critical phase of brain development. Brain Dev. 2016 Apr;38(4):355-63. doi: 10.1016/j.braindev.2015.10.008. Review. PubMed PMID: 26515724.

Plasticity or neuronal plasticity is a unique and adaptive feature of nervous system which allows neurons to reorganize their interactions in response to an intrinsic or extrinsic stimulation and shapes the formation and maintenance of a functional neuronal circuit. Synaptic plasticity is the most important form of neural plasticity and plays critical role during the development allowing the formation of precise neural connectivity via the process of pruning. In the sensory systems-auditory and visual, this process is heavily dependent on the external cues perceived during the development. Environmental enrichment paradigms in an activity-dependent manner result in early maturation of the synapses and more efficient trans-synaptic signaling or communication flow. This has been extensively observed in the avian auditory system. On the other hand, stimuli results in negative effect can cause alterations in the synaptic connectivity and strength resulting in various developmental brain disorders including autism, fragile X syndrome and rett syndrome. In this review we discuss the role of different forms of activity (spontaneous or environmental) during the development of the nervous system in modifying synaptic plasticity necessary for shaping the adult brain. Also, we try to explore various factors (molecular, genetic and epigenetic) involved in altering the synaptic plasticity in positive and negative way.

DOI: 10.1016/j.braindev.2015.10.008
PMID: 26515724 [PubMed - in process]

20: Chauhan V, Tiwari A, Rath GP, Banik S. Asystole during lumbar discectomy: a case report. J Clin Anesth. 2016 Jun;31:265-6. doi: 10.1016/j.jclinane.2016.01.014. PubMed PMID: 27185724.

Hemodynamic derangements have been reported after surgery involving upper cervical spine. Similar observations, however, are rare during a lumbar spine surgery. We share our experience in a patient who had 2 episodes of bradycardia leading to transient asystole while undergoing lumbar discectomy for prolapsed intervertebral disc. The risk of life-threatening hemodynamic disturbances during seemingly uncomplicated surgery in prone position has been emphasized.

DOI: 10.1016/j.jclinane.2016.01.014
PMID: 27185724 [PubMed - in process]

21: Chawla R, Tripathy K, Chaudhary S, Phuljhele S, Venkatesh P. Unilateral Macular Star in a Case of Hypertension and Retinitis Pigmentosa. Semin Ophthalmol. 2016 Apr 29:0. [Epub ahead of print] PubMed PMID: 27128810.

PURPOSE: To describe a case of hypertension and retinitis pigmentosa presenting with a unilateral macular star.
METHODS: Case report.
RESULTS: A 17-year-old female with chronic kidney disease and hypertension presented with a mild blurring of vision in the left eye. There was a history of night blindness. Both eyes had optic disc pallor, arteriolar attenuation, and peripheral bony spicules suggestive of the triad of retinitis pigmentosa. Macular star was seen in the left eye alone. We ascribe the macular star to hypertension as the patient had only a mild decrease in vision, no relative afferent pupillary defect, and similar visual evoked response amplitude and latency in both eyes.
CONCLUSION: Unilateral macular star may be seen in hypertension and may simulate neuroretinitis in the clinical setting.

DOI: 10.3109/08820538.2015.1132331
PMID: 27128810 [PubMed - as supplied by publisher]

22: Chhavi S, Abhyuday K, Parin L. Video laryngoscope as the new standard of care in trauma ED. Am J Emerg Med. 2016 Jul;34(7):1313-4. doi: 10.1016/j.ajem.2016.04.039. PubMed PMID: 27165719.

23: Choudhary SK, Talwar S, Airan B. Choice of prosthetic heart valve in a developing country. Heart Asia. 2016 Apr 28;8(1):65-72. doi: 10.1136/heartasia-2015-010650. PubMed PMID: 27326237; PubMed Central PMCID: PMC4898620.

Mechanical prostheses and stented xenografts (bioprosthesis) are most commonly used substitutes for aortic and mitral valve replacement. The mechanical valves have the advantage of durability but are accompanied with the risk of thromboembolism, problems of long-term anticoagulation, and associated risk of bleeding. In contrast, bioprosthetic valves do not require long-term anticoagulation, but carry the risk of structural valve degeneration and re-operation. A mechanical valve is favoured in young patients (<40 years) if reliable anticoagulation is ensured. In elderly patients (>60 years), a bioprosthesis is a suitable substitute. In middle-aged patients (40-60 years), risk of re-operation in a bioprosthesis is equal to that of bleeding in a mechanical valve. Traditionally, a bioprosthesis is opted in patients with limited life expectancy. Calculation of life expectancy, based solely upon chronological age, is erroneous. In developing countries, the calculated life expectancy is much lower than that of Western population, hence age related Western cut-offs are not valid in developing countries. Besides age, cardiac condition of the patient, systemic illnesses, socio-economic status, gender and geographical location also decide the life expectancy of the patients. Selection of the prosthetic valve substitute should be based on: aspiration of the patient, life expectancy, socio-economic and educational background, occupation of the patient, availability, cost, monitoring of anti-coagulation, monitoring of valve function and other valve related complications, and possibility of re-operation.

DOI: 10.1136/heartasia-2015-010650
PMCID: PMC4898620
PMID: 27326237 [PubMed]

24: Dabas Y, Bakhshi S, Xess I. Fatal Cases of Bloodstream Infection by Fusarium solani and Review of Published Literature. Mycopathologia. 2016 Apr;181(3-4):291-6. doi: 10.1007/s11046-015-9960-8. PubMed PMID: 26541869.

Fusarium species are ubiquitously present in environment and are well known as human pathogens with high mortality rate in immunocompromised patients. We report here two cases where immunocompromised patients developed fatal bloodstream infections by this organism. Isolates were further identified by ITS1 region sequencing which confirmed them as Fusarium solani. Antifungal susceptibility testing was done following CLSI M38-A2 guidelines to amphotericin B, fluconazole, itraconazole, voriconazole, posaconazole, caspofungin, and micafungin. Both patients had a fatal outcome and expired of septic shock. Therefore, identification up to species level is of utmost importance as that helps in directing the management of the patient thereby leading to a favourable outcome.

DOI: 10.1007/s11046-015-9960-8
PMID: 26541869 [PubMed - in process]

25: Dantham S, Srivastava AK, Gulati S, Rajeswari MR. Plasma circulating cell-free mitochondrial DNA in the assessment of Friedreich's ataxia. J Neurol Sci. 2016 Jun 15;365:82-8. doi: 10.1016/j.jns.2016.04.016. PubMed PMID: 27206881.

Friedreich's ataxia (FRDA) is one of the most devastating childhood onset neurodegenerative disease affecting multiple organs in the course of progression. FRDA is associated with mitochondrial dysfunction due to deficit in a nuclear

encoded mitochondrial protein, frataxin. Identification of disease-specific biomarker for monitoring the severity remains to be a challenging topic. This study was aimed to identify whether circulating cell-free nuclear DNA (nDNA) and mitochondrial DNA (mtDNA) in blood plasma can be a potential biomarker for FRDA. Clinical information was assessed using International Cooperative Ataxia Rating Scale and the disease was confirmed using Long-range PCR for GAA repeat expansion within the gene encoding frataxin. The frataxin expression was measured using Western blot. Plasma nDNA and mtDNA levels were quantified by Multiplex real-time PCR. The major observation is that the levels of nDNA found to be increased, whereas mtDNA levels were reduced significantly in the plasma of FRDA patients (n=21) as compared to healthy controls (n=21). Further, plasma mtDNA levels showed high sensitivity (90%) and specificity (76%) in distinguishing from healthy controls with optimal cutoff indicated at 4.1×10(5)GE/mL. Interestingly, a small group of follow-up patients (n=9) on intervention with, a nutrient supplement, omega-3 fatty acid (a known enhancer of mitochondrial metabolism) displayed a significant improvement in the levels of plasma mtDNA, supporting our hypothesis that plasma mtDNA can be a potential monitoring or prognosis biomarker for FRDA.

DOI: 10.1016/j.jns.2016.04.016
PMID: 27206881 [PubMed - in process]

26: Das KJ, Patel CD, Sharma G, Naik N, Singh H. Detection of perfusion abnormalities in patients with permanent pacemakers on stress-rest 99mTc-tetrofosmin myocardial perfusion single-photon emission computed tomography: comparison between right ventricular apex and right ventricular outflow tract pacing. Nucl Med Commun. 2016 Apr;37(4):406-11. doi: 10.1097/MNM.0000000000000472. PubMed PMID: 26730654.

OBJECTIVE: The aim of the study was to compare the myocardial perfusion defects in patients with right ventricular outflow tract (RVOT) and right ventricular apex (RVA) pacing on stress-rest Tc-tetrofosmin myocardial perfusion single-photon emission computed tomography.
PATIENTS AND METHODS: A total of 31 patients with permanent pacemakers (RVOT: 16 and RVA: 15) underwent stress-rest Tc-tetrofosmin involving a 1-day protocol. All patients underwent 1-day low-dose stress-gated and high-dose rest-gated Tc-tetrofosmin myocardial perfusion single-photon emission computed tomography imaging.
RESULTS: Fixed perfusion defects were noted in 13 (42%) of 31 patients. Two (13%) patients of the RVOT group and 11 (69%) patients of the RVA group showed fixed perfusion defects (P=0.003). The fixed perfusion defects were located in the anteroapical, anteroseptal, and apical in the RVOT pacing group and in the apical, distal anteroseptal, inferoapical, distal anterior, and distal inferoseptal in the RVA pacing group. On univariate analysis, the incidence of perfusion defects was significantly associated with apical pacing, longer pQRS duration, and higher percentage of ventricular pacing. On multivariate analysis, the site of pacemaker insertion was found to be the most important pacemaker parameter determining the incidence of perfusion defects. Importantly, the duration of postpacemaker implantation did not show any significant relation to the incidence of perfusion defects.
CONCLUSION: Fixed perfusion abnormalities are observed in patients with pacemakers and are independent of duration of time since implantation. RVOT pacing is associated with fewer incidences of myocardial perfusion abnormalities compared with RVA pacing.

DOI: 10.1097/MNM.0000000000000472
PMID: 26730654 [PubMed - in process]

27: Dash C, Garg K, Kale SS. Letter to the Editor: Topical vancomycin use following craniotomy. J Neurosurg. 2016 Jul;125(1):234-5. doi: 10.3171/2016.1.JNS16103. PubMed PMID: 27128586.

28: Datta PK, Pawar DK, Baidya DK, Maitra S, Aravindan A, Srinivas M, Lakshmy R, Gupta N, Bajpai M, Bhatnagar V, Agarwala S. Dextrose-containing intraoperative fluid in neonates: a randomized controlled trial. Paediatr Anaesth. 2016 Jun;26(6):599-607. doi: 10.1111/pan.12886. PubMed PMID: 27083135.

BACKGROUND: Glucose requirement in neonates during surgery and the impact of glucose supplementation on neonatal metabolism remain unclear.
AIM: This study was designed to identify an appropriate perioperative fluid regimen in neonates which maintains carbohydrate and lipid homeostasis.
METHODS: Forty-five neonates undergoing primary repair of a trachea-esophageal fistula were randomly allocated into three groups. During surgery, the neonates received either 1% dextrose in Ringer lactate (RL) (group D1) at 10 ml·kg(-1) ·h(-1) , or 2% dextrose in RL (group D2) at 10 ml·kg(-1) ·h(-1) , or 10% dextrose in N/5 saline at 4 ml·kg(-1) ·h(-1) and replacement fluid with 6 ml·kg(-1) ·h(-1) of RL (group D4). Glucose homeostasis, electrolyte balance, acid-base status, and endocrine and metabolic parameters were compared among the groups during the perioperative period.
RESULTS: Blood glucose increased in all the three groups at the end of surgery, with no significant difference in blood glucose and incidence of hyperglycemia (BG > 150 mg·dl(-1)) among them. At 24 h after surgery, blood glucose and incidence of hyperglycemia was significantly higher in Group D1 compared to Group D4. Base excess, bicarbonate, lactate, and pH showed a significant fall in Group D1. There was no significant difference in serum-free fatty acids, serum beta-hydroxy butyrate, and serum cortisol in three groups. At the end of surgery, serum insulin was significantly lower and glucagon : insulin (G : I) ratio was higher in Group D1 compared to Group D4.
CONCLUSIONS: All three solutions, when infused at 10 ml·kg(-1) ·h(-1) , are equally effective in maintaining glucose homeostasis, but 1% dextrose-containing fluid promotes catabolism, insulin resistance, rebound hyperglycemia, and acidosis. Therefore, 2-4% dextrose-containing fluids is more suitable compared to 1% dextrose-containing fluids for use during major neonatal surgeries requiring average fluid infusion rate of 10 ml·kg(-1) ·h(-1) .

DOI: 10.1111/pan.12886
PMID: 27083135 [PubMed - in process]

29: Dayama A, Dass J, Mahapatra M, Saxena R. Incidence of Antiphospholipid Antibodies in Patients With Immune Thrombocytopenia and Correlation With Treatment With Steroids in North Indian Population. Clin Appl Thromb Hemost. 2016 Apr 10. pii: 1076029616643820. [Epub ahead of print] PubMed PMID: 27067744.

INTRODUCTION: Antiphospholipid antibodies (APLAs) have been variably reported in 14% to 75% of patients with immune thrombocytopenia (ITP). There is lack of Indian data on incidence of APLA in ITP.
OBJECTIVE: We studied the incidence of APLA in patients with pediatric and adult Indian ITP.
MATERIALS AND METHODS: We prospectively studied 100 patients including acute (n = 37), persistent (n = 13), and chronic (n = 50) ITP. Male to female ratio was 1.22:1. Median age was 18 years (1.5-56). All patients underwent investigations for lupus anticoagulant (LA), anticardiolipin (aCL) immunoglobulin G (IgG) and IgM antibodies, and anti-β2 glycoprotein 1 (β2GP1) IgG and IgM antibodies. Patients with secondary ITP were excluded. Bleeding manifestations were recorded. Patients with acute and persistent ITP were assessed for steroid response. Response rates were compared between APLA-positive and APLA-negative patients.
RESULTS: Antiphospholipid antibodies were detected in ~12% of patients with ITP: 8.1% (3 of 37) in acute, 0% (0 of 13) in persistent, and 18% (9 of 50) in chronic ITP. Anti-β2GP1 antibodies were most frequent (9%). Only 2 patients each were

positive for anti-aCL antibodies and LA. Although platelet counts were significantly higher in APLA-positive patients, there was no significant difference in bleeding between the APLA-positive versus APLA-negative patients with ITP. There was also no significant difference in steroid response between APLA-positive and APLA-negative patients with acute/persistent ITP. In the short follow-up (median 8 months), none of the APLA-positive patients developed thrombosis.
CONCLUSIONS: Incidence of APLA in Indian population was lower than reported in the West, which indicates that not all patients of ITP need to be subjected to these manifestations upfront at diagnosis.

DOI: 10.1177/1076029616643820
PMID: 27067744 [PubMed - as supplied by publisher]

30: Devi S, Ganger A, Sharma S, Saxena R. Sphenoid mucocele with unusual panhypopituitarism. BMJ Case Rep. 2016 Apr 5;2016. pii: bcr2015214218. doi: 10.1136/bcr-2015-214218. PubMed PMID: 27048396.

A 13-year-old boy presented with bilateral progressive proptosis, abduction deficit, optic atrophy and features suggestive of hypopituitarism secondary to a sphenoid sinus mucocele. Drainage of the mucocele along with hormone replacement therapy resulted in improvement in visual acuity and abduction.

DOI: 10.1136/bcr-2015-214218
PMID: 27048396 [PubMed - in process]

31: Dube D, Tiwari P, Kaur P. The hunt for antimitotic agents: an overview of structure-based design strategies. Expert Opin Drug Discov. 2016 Jun;11(6):579-97. doi: 10.1080/17460441.2016.1174689. PubMed PMID: 27077683.

INTRODUCTION: Structure-based drug discovery offers a rational approach for the design and development of novel anti-mitotic agents which target specific proteins involved in mitosis. This strategy has paved the way for development of a new generation of chemotypes which selectively interfere with the target proteins. The interference of these anti-mitotic targets implicated in diverse stages of mitotic cell cycle progression culminates in cancer cell apoptosis.
AREAS COVERED: This review covers the various mitotic inhibitors developed against validated mitotic checkpoint protein targets using structure-based design and optimization strategies. The protein-ligand interactions and the insights gained from these studies, culminating in the development of more potent and selective inhibitors, have been presented.
EXPERT OPINION: The advent of structure-based drug design coupled with advances in X-ray crystallography has revolutionized the discovery of candidate lead molecules. The structural insights gleaned from the co-complex protein-drug interactions have provided a new dimension in the design of anti-mitotic molecules to develop drugs with a higher selectivity and specificity profile. Targeting non-catalytic domains has provided an alternate approach to address cross-reactivity and broad selectivity among kinase inhibitors. The elucidation of structures of emerging mitotic drug targets has opened avenues for the design of inhibitors that target cancer.

DOI: 10.1080/17460441.2016.1174689
PMID: 27077683 [PubMed - in process]

32: Garg B, Machhindra MV, Tiwari V, Shankar V, Kotwal P. Nail-preserving modified lateral subperiosteal approach for subungual glomus tumour: a novel surgical approach. Musculoskelet Surg. 2016 Apr;100(1):43-8. doi: 10.1007/s12306-015-0374-z. PubMed PMID: 25957553.

PURPOSE: Glomus tumours are benign, vascular neoplasms arising from glomus body

and are often found near the fingertips. Complete surgical excision of the tumour must be ensured to avoid its recurrence. Several surgical approaches for its excision have been described in the literature; however, most of the approaches are associated with nail deformity in the post-operative period or fail to offer a complete exposure of the tumour. We wish to share our experience with our described nail-preserving modified lateral subperiosteal approach, where on account of the distal curve over the pulp tip, we achieve a large flap yielding an excellent exposure of the tumour mass.
METHODS: We retrospectively evaluated 30 patients with subungual glomus tumour who were operated using this approach at a mean follow-up of 35.33 months. All patients were assessed for relief in the pre-operative symptoms, nail deformity, recurrence or any other complications.
RESULTS: All wounds healed well without any possible wound complications such as wound dehiscence, suture margin necrosis or infection. At the end of the follow-up, all patients were relieved of the pre-operative symptoms. There was no evidence of deformity of nail or fingertip. No patient had recurrence. All the operated fingers were functionally normal.
CONCLUSIONS: Nail-preserving modified lateral subperiosteal approach does not damage the nail bed or interosseous supports to the distal phalanx. It is a very simple, less time-consuming approach for the resection of subungual tumours, and we would like to recommend it to our fellow orthopaedic surgeons.

DOI: 10.1007/s12306-015-0374-z
PMID: 25957553 [PubMed - in process]

33: Garg N, Soni KD, Aggarwal R. Unstable cardiac injury complicated with septic shock-a challenge. Burns Trauma. 2016 Apr 8;4:11. doi: 10.1186/s41038-016-0035-y. PubMed PMID: 27574681; PubMed Central PMCID: PMC4963929.

BACKGROUND: Road traffic accident accounts for 70 % to 80 % of the blunt cardiac injury. The true incidence varies in the literature due to non-uniform criteria for diagnosis.
CASE PRESENTATION: Here, we describe the case of a young male presenting after blunt chest injury and hemodynamic instability. Initially, the patient had frequent episodes of arrhythmias and hypotension due to cardiac injury per se. However, he was stabilized by day 2. Subsequently, patient developed cellulitis followed by septic shock and succumbed to cellulitis on day 5 of injury.
CONCLUSION: Sepsis is difficult to be diagnosed and treated in the presence of cardiac injury. Myocardial depression has been found in sepsis, which contributes as an added comorbidity in an already compromised heart function. Sepsis also interferes with the diagnosis and follow-up of progress of blunt cardiac injury.

DOI: 10.1186/s41038-016-0035-y
PMCID: PMC4963929
PMID: 27574681 [PubMed]

34: Garg PK, Jakhetiya A, Sharma J, Ray MD, Pandey D. Lymphadenectomy in gastric cancer: Contentious issues. World J Gastrointest Surg. 2016 Apr 27;8(4):294-300. doi: 10.4240/wjgs.v8.i4.294. Review. PubMed PMID: 27152135; PubMed Central PMCID: PMC4840168.

The stomach is the sixth most common cause of cancer worldwide. Surgery is an important component of the multi-modality treatment of the gastric cancer. The extent of lymphadenectomy has been a controversial issue in the surgical management of gastric cancer. The East-Asian surgeons believe that quality-controlled extended lymphadenectomy resulting in better loco-regional control leads to survival benefit in the gastric cancer; contrary to that, many western surgeons believe that extended lymphadenectomy adds to only postoperative morbidity and mortality without significantly enhancing the overall survival. We present a comprehensive review of the lymphadenectomy in the gastric cancer based on the previously published randomized controlled trials.

DOI: 10.4240/wjgs.v8.i4.294
PMCID: PMC4840168

PMID: 27152135 [PubMed]

35: Gautam M, Prasoon P, Kumar R, Singh A, Shrimal P, Ray SB. Direct intrawound administration of dimethylsulphoxide relieves acute pain in rats. Int Wound J. 2016 Apr;13(2):252-6. doi: 10.1111/iwj.12280. PubMed PMID: 24750992.

Wounds associated with injuries such as burns can produce moderate to severe pain. Besides causing distress to the patient, unrelieved pain could delay healing owing to stress-related problems. Thus, pain needs to be treated as early as possible after injury. It was hypothesised that local treatment of wounds with appropriate analgesic drugs could attenuate pain. HOE 140, a bradykinin receptor antagonist, reduced acute inflammatory pain in rats after intrawound administration. In this study, the analgesic effect of dimethylsulphoxide (DMSO) was investigated in a similar hind-paw incision model in rats. An extremely small quantity (10 µl) of 100% DMSO was administered into the incision site just before closure of the wound. It persistently attenuated guarding behaviour in rats over a period of 3 days without affecting thermal hyperalgesia or allodynia. Accumulated evidence indicates that guarding is equivalent to pain at rest in humans. The possible mechanisms of the analgesic effect could be inhibition of C group of peripheral nerve fibres or even free radical scavenging. Healing of the wound was found to be normal at the end of the study period. In conclusion, DMSO could be useful in the treatment of acute pain resulting from tissue injuries such as burns.

DOI: 10.1111/iwj.12280
PMID: 24750992 [PubMed - in process]

36: Gilbert CE, Babu RG, Gudlavalleti AS, Anchala R, Shukla R, Ballabh PH, Vashist P, Ramachandra SS, Allagh K, Sagar J, Bandyopadhyay S, Murthy GV. Eye care infrastructure and human resources for managing diabetic retinopathy in India: The India 11-city 9-state study. Indian J Endocrinol Metab. 2016 Apr;20(Suppl 1):S3-S10. doi: 10.4103/2230-8210.179768. PubMed PMID: 27144134; PubMed Central PMCID: PMC4847447.

BACKGROUND: There is a paucity of information on the availability of services for diagnosis and management of diabetic retinopathy (DR) in India.
OBJECTIVES: The study was undertaken to document existing healthcare infrastructure and practice patterns for managing DR.
METHODS: This cross-sectional study was conducted in 11 cities and included public and private eye care providers. Both multispecialty and stand-alone eye care facilities were included. Information was collected on the processes used in all steps of the program, from how diabetics were identified for screening through to policies about follow-up after treatment by administering a semistructured questionnaire and by using observational checklists.
RESULTS: A total of 86 eye units were included (31.4% multispecialty hospitals; 68.6% stand-alone clinics). The availability of a dedicated retina unit was reported by 68.6% (59) facilities. The mean number of outpatient consultations per year was 45,909 per responding facility, with nearly half being new registrations. A mean of 631 persons with sight-threatening-DR (ST-DR) were registered per year per facility. The commonest treatment for ST-DR was laser photocoagulation. Only 58% of the facilities reported having a full-time retina specialist on their rolls. More than half the eye care facilities (47; 54.6%) reported that their ophthalmologists would like further training in retina. Half (51.6%) of the facilities stated that they needed laser or surgical equipment. About 46.5% of the hospitals had a system to track patients needing treatment or for follow-up.
CONCLUSIONS: The study highlighted existing gaps in service provision at eye care facilities in India.

DOI: 10.4103/2230-8210.179768
PMCID: PMC4847447

PMID: 27144134 [PubMed]

37: Gothwal S, Nayan S. Hallervorden-Spatz Syndrome with Seizures. Basic Clin Neurosci. 2016 Apr;7(2):165-6. doi: 10.15412/J.BCN.03070210. PubMed PMID: 27303611; PubMed Central PMCID: PMC4892321.

Hallervorden-Spatz syndrome is a disorder characterized by dystonia, parkinsonism, and iron accumulation in the brain. The disease is caused by mutations in gene encoding pantothenate kinase 2 (PANK2) and patients have pantothenate kinase-associated neurodegeneration. We present an 8-year-old boy with progressive muscle dystonia, neuroregression, frequent fall and multiple injury marks of different stages. Seizures are rare with PANK2. This child had seizure onset at 4 years of age and seizure free on valproate and levetricetam. The CT scan showed tiger eye appearance and mutations on PANK2 gene.

DOI: 10.15412/J.BCN.03070210
PMCID: PMC4892321
PMID: 27303611 [PubMed]

38: Goudra B, Nuzat A, Singh PM, Borle A, Carlin A, Gouda G. Association between Type of Sedation and the Adverse Events Associated with Gastrointestinal Endoscopy: An Analysis of 5 Years' Data from a Tertiary Center in the USA. Clin Endosc. 2016 Apr 29. doi: 10.5946/ce.2016.019. [Epub ahead of print] PubMed PMID: 27126387.

Background/Aims: The landscape of sedation for gastrointestinal (GI) endoscopic procedures and the nature of the procedures themselves have changed over the last decade. In this study, an attempt is made to analyze the frequency and etiology of all major adverse events associated with GI endoscopy.
Methods: All adverse events extracted from the electronic database and local registry were analyzed. Although the data analysis was retrospective, the adverse events themselves were documented prospectively. These events were evaluated after subdivision into propofol-based anesthesia and intravenous conscious sedation groups.
Results: Cardiorespiratory events, including cardiac arrest, were the most common adverse events during esophagogastroduodenoscopy, while bleeding was more frequent in patients undergoing colonoscopy. Pancreatitis was the most frequent adverse event in patients undergoing endoscopic retrograde cholangiopancreatography. The frequencies of most adverse events were significantly higher in patients anesthetized with propofol. Automatic regression modeling showed that the type of sedation, the American Society of Anesthesiologists physical status classification, and the procedure type were some of the predictors of immediate life-threatening complications.
Conclusions: Clearly, our regression modeling suggests a strong association between the type of sedation as well as various patient factors and the frequency of adverse events. The possible reasons for our results are the changing demographics, the worsening comorbidities of the patient population, and the increasing technical complexity of these procedures. Although extensive use of propofol has increased patient satisfaction and procedure acceptability, its use is also associated with more frequent adverse events.

DOI: 10.5946/ce.2016.019
PMID: 27126387 [PubMed - as supplied by publisher]

39: Gour S, Kaushik V, Kumar V, Bhat P, Yadav SC, Yadav JK. Antimicrobial peptide (Cn-AMP2) from liquid endosperm of Cocos nucifera forms amyloid-like fibrillar structure. J Pept Sci. 2016 Apr;22(4):201-7. doi: 10.1002/psc.2860. PubMed PMID: 27028204.

Cn-AMP2 is an antimicrobial peptide derived from liquid endosperm of coconut (Cocos nucifera). It consists of 11 amino acid residues and predicted to have high propensity for β-sheet formation that disposes this peptide to be amyloidogenic. In the present study, we have examined the amyloidogenic propensities of Cn-AMP2 in silico and then tested the predictions under in vitro

conditions. The in silico study revealed that the peptide possesses high amyloidogenic propensity comparable with Aβ. Upon solubilisation and agitation in aqueous buffer, Cn-AMP2 forms visible aggregates that display bathochromic shift in the Congo red absorbance spectra, strong increase in thioflavin T fluorescence and fibrillar morphology under transmission electron microscopy. All these properties are typical of an amyloid fibril derived from various proteins/peptides including Aβ.

DOI: 10.1002/psc.2860
PMID: 27028204 [PubMed - in process]

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BACKGROUND: Peritoneal dialysis patients have high cardiovascular morbidity and mortality. The underlying mechanism of cardiovascular dysfunction remains unclear. Large arterial stiffness in chronic kidney disease (CKD) patients leads to increase in pulse wave velocity (PWV) and decrease in baroreflex sensitivity (BRS). Impairment in baroreflex function could be attributed to the alteration in mechanical properties of large vessels due to arterial remodeling observed in these patients. The present study was designed to study the association of BRS and PWV in peritoneal dialysis (PD) patients.
METHODS: 42 CKD patients (21--without dialysis and 21--on PD) and 25 healthy controls were recruited in this study. BRS was determined by spontaneous sequence method. Short-term heart rate variability (HRV) and blood pressure variability (BPV) were assessed using power spectrum analysis of RR intervals and systolic blood pressure by time domain and frequency domain analysis. Arterial stiffness indices were assessed by carotid-femoral PWV using Sphygmocor Vx device (AtCor Medical, Australia).
RESULTS: CKD patients had significantly high PWV and low BRS as compared to healthy controls. PWV had a significant negative correlation with BRS in CKD patients (Spearman $r = -0.7049$, $P < 0.0001$; BRS-Systolic BP). On subgroup analysis, PWV was higher with lower BRS in CKD patients on peritoneal dialysis (CKD-PD) as compared to those not on dialysis (CKD-ND). Negative relationship between PWV and BRS was found in both the groups. In addition, BRS was found to have a positive correlation with HRV in CKD patients as well as both the subgroups.
CONCLUSION: Reduction in BRS is strongly associated with increase in PWV in PD patients. Large arterial stiffness probably explains this simultaneous impairment in baroreflex functioning and increase in pulse wave velocity observed in these patients. CKD patients are characterized by poor hemodynamic profile (low BRS, high PWV, and low HRV), and peritoneal dialysis patients had further worsened profile as compared to non-dialysis group.

DOI: 10.1007/s10157-015-1158-3
PMID: 26342707 [PubMed - in process]

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42: Gupta MP, Sagar P, Hota A, Kumar R, Kumar R. Diplopia as a sequel of unilateral neck dissection. Head Neck. 2016 Aug;38(8):E2475-8. doi: 10.1002/hed.24428. PubMed PMID: 27044014.

BACKGROUND: The purpose of this study was to discuss the underlying etiology of raised intracranial pressure and its sequel after unilateral internal jugular vein ligation. In addition, the management protocol for such rare cases has been discussed along with literature review.

METHODS: PubMed and Google were used to search the literature for cases of raised intracranial pressure with complications after unilateral internal jugular vein (IJV) ligation. Twelve case reports with 17 patients were identified.
RESULTS: There were 13 male and 4 female patients ranging between the ages of 26 and 61 years. Headache (n = 12/17; 70.5%), diplopia (n = 10/17; 58.8%), impaired vision (n = 9/17; 52.9%), and aplasia or hypoplasia of the transverse sinus were seen in these patients.
CONCLUSION: Although very rare, this potential complication after unilateral IJV ligation should be kept in mind. Magnetic resonance venogram (MRV) is the investigation of choice to ascertain the underlying etiology. Conservative management should be started immediately. Surgical options are reserved for patients with progressive symptoms. © 2016 Wiley Periodicals, Inc. Head Neck, 2016 © 2016 Wiley Periodicals, Inc. Head Neck 38:E2475-E2478, 2016.

DOI: 10.1002/hed.24428
PMID: 27044014 [PubMed - in process]

43: Hussain ME, Golam Sarwar AH, Alam MS, Noohu MM, Zannat W, Pandi-Perumal SR, Bahammam AS, Manzar MD. Polysomnographic correlates of inflammatory complement components in young healthy males. Sleep Sci. 2016 Apr-Jun;9(2):123-7. doi: 10.1016/j.slsci.2016.04.001. PubMed PMID: 27656278; PubMed Central PMCID: PMC5021955.

A growing body of evidence has delineated the predominant role of humoral mediators of inflammation in linking sleep with immunity. Nonetheless, characterization of the relationship between complement components with inflammatory functions and objective sleep measures has not been performed. In this study we investigated the relationships between objective measures of sleep and complement components with inflammatory functions. Thirty-six healthy male university students (age, 23.94±4.23 years; BMI, 23.44±2.67 kg/m(2)) completed the study. An RMS Quest 32 polysomnograph (PSG) was used for sleep recording. Non-fasting blood was collected before subjects went to bed on the second night in the sleep laboratory to estimate complement component 3 (C-3), complement component 4 (C-4), complement factor-H (Factor-H), C1-inhibitor (C1INH), complement factor I (CFI) and other inflammatory mediators, such as IL-6 and sICAM-1. Multiple linear regression analysis was used to assess the association between PSG sleep measures and inflammatory mediators. Higher values of C-3 and lower values of sICAM-1, C1INH, and CFI (adjusted model, $R2=0.211$, $p<0.041$) predicted longer sleep duration. Lower C-3 (adjusted model, $R2=0.078$, $p<0.055$) predicted higher N1 (%). Higher levels of C1INH and CFI and lower values of C-4 (model adjusted $R2=0.269$, $p<0.008$) predicted higher N3 (%). Higher C-3, higher C-4, lower IL-6, lower C1INH and lower CFI (model adjusted $R2=0.296$, $p<0.007$) predicted higher REM (%). Poor sleep measures were associated with increased levels of pro-inflammatory complement components and decreased anti-inflammatory complement components.

DOI: 10.1016/j.slsci.2016.04.001
PMCID: PMC5021955
PMID: 27656278 [PubMed]

44: Jadhav GR, Mittal PR. Novel Matricing Technique for Management of Fractured Cusp Conundrum - A Clinician's Corner. J Clin Diagn Res. 2016 Apr;10(4):ZH01-2. doi: 10.7860/JCDR/2016/18029.7551. PubMed PMID: 27190970; PubMed Central PMCID: PMC4866268.

Longitudinal tooth fracture can be classified as craze lines, fractured cusp, cracked tooth, split tooth and vertical root fracture based on extent and severity of the fracture line. The most common type of longitudinal tooth fracture is fractured cusp that poses the treatment dilemma. Retention of the fractured cusp segment temporarily with matrix band followed by permanent bonded restoration and finally removal of tooth fragment during crown preparation is a novel technique. This paper throws light on a matricing and holding technique for

the management of supra-crestally fractured palatal cusp of maxillary first premolar in a 29-year-old Asian male.

DOI: 10.7860/JCDR/2016/18029.7551
PMCID: PMC4866268
PMID: 27190970 [PubMed]

45: Jain N, Khullar B, Oswal N, Banoth B, Joshi P, Ravindran B, Panda S, Basak S, George A, Rath S, Bal V, Sopory S. TLR-mediated albuminuria needs TNFα-mediated cooperativity between TLRs present in hematopoietic tissues and CD80 present on non-hematopoietic tissues in mice. Dis Model Mech. 2016 Jun 1;9(6):707-17. doi: 10.1242/dmm.023440. PubMed PMID: 27125280; PubMed Central PMCID: PMC4920147.

Transient albuminuria induced by pathogen-associated molecular patterns (PAMPs) in mice through engagement of Toll-like receptors (TLRs) is widely studied as a partial model for some forms of human nephrotic syndrome (NS). In addition to TLRs, CD80 has been shown to be essential for PAMP-mediated albuminuria. However, the mechanistic relationships between TLRs, CD80 and albuminuria remain unclear. Here, we show that albuminuria and CD80-uria induced in mice by many TLR ligands are dependent on the expression of TLRs and their downstream signalling intermediate MyD88 exclusively in hematopoietic cells and, conversely, on CD80 expression exclusively in non-hematopoietic cells. TNFα is crucial for TLR-mediated albuminuria and CD80-uria, and induces CD80 expression in cultured renal podocytes. IL-10 from hematopoietic cells ameliorates TNFα production, albuminuria and CD80-uria but does not prevent TNFα-mediated induction of podocyte CD80 expression. Chitohexaose, a small molecule originally of parasite origin, mediates TLR4-dependent anti-inflammatory responses, and blocks TLR-mediated albuminuria and CD80-uria through IL-10. Thus, TNFα is a prominent mediator of renal CD80 induction and resultant albuminuria in this model, and small molecules modulating TLR-mediated inflammatory activation might have contributory or adjunct therapeutic potential in some contexts of NS development.

DOI: 10.1242/dmm.023440
PMCID: PMC4920147
PMID: 27125280 [PubMed - in process]

46: Jain V, Kurpad AV, Kumar B, Devi S, Sreenivas V, Paul VK. Body composition of term healthy Indian newborns. Eur J Clin Nutr. 2016 Apr;70(4):488-93. doi: 10.1038/ejcn.2015.152. PubMed PMID: 26373958.

BACKGROUND/OBJECTIVES: Previous anthropometry-based studies have suggested that in Indian newborns fat mass is conserved at the expense of lean tissue. This study was undertaken to assess the body composition of Indian newborns and to evaluate its relation with parents' anthropometry, birth weight and early postnatal weight gain.
SUBJECTS/METHODS: Body composition of healthy term singleton newborns was assessed by the deuterium dilution method in the second week of life. Anthropometry was carried out at birth and on the day of study.
RESULTS: Data from 127 babies were analyzed. Birth weight was 2969±383 g. Body composition was assessed at a mean age of 12.7±3.1 days. Fat and fat-free mass were 354±246 and 2764±402 g, respectively, and fat mass percentage (FM%) was 11.3±7.3%. Birth weight and fat-free mass were higher among boys, but no gender difference was noted in FM%. Birth weight was positively correlated with fat as well as fat-free mass but not FM%. FM% showed positive correlation with gain in weight from birth to the day of assessment.
CONCLUSIONS: This is the first study from India to report body composition in newborns using deuterium dilution. FM% was comparable to that reported for Western populations for babies of similar age. Our results suggest that the percentage of fat and fat-free mass is relatively constant over the range of birth weights included in this study, and greater weight gain during early postnatal period results in greater increase in FM%.

DOI: 10.1038/ejcn.2015.152
PMID: 26373958 [PubMed - in process]

47: Jamaluddin MA, Kataria K. Management of Acute Necrotizing Pancreatitis. Indian J Surg. 2016 Apr;78(2):168-9. doi: 10.1007/s12262-016-1458-1. PubMed PMID: 27303134; PubMed Central PMCID: PMC4875911.

48: Jayaswal A, Kandwal P, Goswami A, Vijayaraghavan G, Jariyal A, Upendra BN, Gupta A. Early onset scoliosis with intraspinal anomalies: management with growing rod. Eur Spine J. 2016 Oct;25(10):3301-3307. PubMed PMID: 27072552.

OBJECTIVE: To evaluate clinical and radiological outcomes of growing rod (GR) in the management of Early Onset Scoliosis (EOS) with intraspinal anomalies.
BACKGROUND DATA: The effect of repeated distractions following GR, in the presence of intraspinal anomalies has not been studied.
METHODS: During 2007-2012, 46 patients underwent fusionless surgery. Out of these 46 patients, 13 patients had one or more intraspinal anomalies. 11 patients had undergone prior neurosurgical procedure while 2 (filum terminale lipoma and syringomyelia) did not. A total of 88 procedures were conducted during the treatment period; 13 index surgeries, 74 distractions of GR and 1 unplanned surgery.
RESULTS: The age at surgery was 6.8 ± 2.5 years (3.5-12 years). 11 patients had congenital scoliosis and 2 had idiopathic scoliosis. A total of 19 (41.30 %) intraspinal anomalies [Tethered Cord Syndrome (TCS) 08, Split Cord Malformation (SCM) 08, Syringomyelia 01, Meningomyelocele 01, Filum terminale Lipoma 01] were seen. The average lengthening procedures per patient were 5.7 (4-9) with distraction interval of 6.7 (6-7.25) months. Pre-operative Cobb angle was 78.50 ± 18.1 (54-114°) and improved to 53.10 ± 16.70 (36-84°) at final follow-up. A total of 15 complications related to implant (9), wound (2), anesthesia (2) and neurological (2) occurred in 7 patients. Among the two neurological complications, one patient sustained fall in the post-op period and reported to the emergency department with paraplegia and broken proximal screw. While other patient experienced MEP changes during index procedure. None of the patients had any neurological complications during repeated lengthening procedures.
CONCLUSION: The most common cord anomalies associated with EOS in our study are TCS and SCM. Although presence of previous intraspinal anomaly does not seem to increase the incidence of neurological deficit, use of neuromonitoring is advisable for all index procedure and selected distractions.
STUDY DESIGN: Level 4 (case series).

49: Jha AK, Malik V, Gharde P, Chauhan S, Kiran U, Hote MP. Echocardiographic Predictors of Immediate Postoperative Outcomes in Patients with Severe Left Ventricular Systolic Dysfunction Undergoing On-Pump Coronary Artery Bypass Grafting. J Cardiothorac Vasc Anesth. 2016 Apr 29. pii: S1053-0770(16)30086-6. doi: 10.1053/j.jvca.2016.04.025. [Epub ahead of print] PubMed PMID: 27546830.

OBJECTIVES: The postoperative course following on-pump coronary artery bypass grafting (CABG) in patients with severe left ventricular (LV) systolic dysfunction is often unpredictable. Therefore, the aim of this study was to identify predictors of poor postoperative outcome in this subset of patients.
DESIGN: Prospective observational study SETTING: Single university hospital PARTICIPANTS: Forty patients with severe LV systolic dysfunction undergoing isolated on-pump CABG INTERVENTIONS: None MEASUREMENTS AND MAIN RESULTS: Comprehensive transesophageal echocardiographic examination was performed to obtain the indices of systolic and diastolic LV function after induction of anesthesia. A poor postoperative outcome was defined as patient death or vasoactive inotropic score≥20 for at least 6 hours and/or requiring intra-aortic balloon counterpulsation and/or mechanical ventilation for≥24 hours. Poor postoperative outcome was observed in 40% (16/40) of patients. Patients with poor postoperative outcomes had a significantly higher systolic dyssynchrony index, septal-lateral delay with a significantly lower global longitudinal strain and isovolumic acceleration, end-diastolic volume, end-systolic volume, and lateral and medial mitral annulus systolic velocity. In a binary logistic regression

model, global longitudinal strain (odds ratio, 1.5, confidence interval [CI] 95%, 1.19-1.88, p = 0.001), septal-lateral delay (odds ratio, 1.02, 95% CI, 1.01-1.03; p = 0.001) and systolic dyssychrony index (odds ratio, 1.3, 95% CI, 1.13-1.48; p = 0.000) were found to be predictors of poor postoperative outcome.
CONCLUSION: Global longitudinal strain, systolic dyssynchrony index, and septal-lateral delay were reliable and accurate predictors of adverse outcomes in patients with severe LV systolic dysfunction undergoing on-pump CABG.

DOI: 10.1053/j.jvca.2016.04.025
PMID: 27546830 [PubMed - as supplied by publisher]

50: Jha R, Sharma R, Rastogi S, Khan SA, Jayaswal A, Gamanagatti S. Preoperative embolization of primary bone tumors: A case control study. World J Radiol. 2016 Apr 28;8(4):378-89. doi: 10.4329/wjr.v8.i4.378. PubMed PMID: 27158424; PubMed Central PMCID: PMC4840195.

AIM: To study the safety and effectiveness of preoperative embolization of primary bone tumors in relation to intraoperative blood loss, intraoperative blood transfusion volume and surgical time.
METHODS: Thirty-three patients underwent preoperative embolization of primary tumors of extremities, hip or vertebrae before resection and stabilization. The primary osseous tumors included giant cell tumors, aneurysmal bone cyst, osteoblastoma, chondroblastoma and chondrosarcoma. Twenty-six patients were included for the statistical analysis (embolization group) as they were operated within 0-48 h within preoperative embolization. A control group (non-embolization group, n = 28) with bone tumor having similar histological diagnosis and operated without embolization was retrieved from hospital record for statistical comparison.
RESULTS: The mean intraoperative blood loss was 1300 mL (250-2900 mL), the mean intraoperative blood transfusion was 700 mL (0-1400 mL) and the mean surgical time was 221 ± 76.7 min for embolization group (groupI, n = 26).
Non-embolization group (group II, n = 28), the mean intraoperative blood loss was 1800 mL (800-6000 mL), the mean intraoperative blood transfusion was 1400 mL (700-8400 mL) and the mean surgical time was 250 ± 69.7 min. On comparison, statistically significant (P < 0.001) difference was found between embolisation group and non-embolisation group for the amount of blood loss and requirement of blood transfusion. There was no statistical difference between the two groups for the surgical time. No patients developed any angiography or embolization related complications.
CONCLUSION: Preoperative embolization of bone tumors is a safe and effective adjunct to the surgical management of primary bone tumors that leads to reduction in intraoperative blood loss and blood transfusion volume.

DOI: 10.4329/wjr.v8.i4.378
PMCID: PMC4840195
PMID: 27158424 [PubMed]

51: Kakkar A, Gupta RK, Khanna P, Balasundaram P, Ray R, Shukla NK. Kimura Disease of the Breast - A Previously Undescribed Entity. Breast J. 2016 Jul;22(4):456-459. doi: 10.1111/tbj.12603. PubMed PMID: 27058987.

Kimura disease (KD) is a rare chronic inflammatory disorder of unknown etiology, primarily seen in young Asian males. The disease is characterized by a triad of painless subcutaneous masses in the head and neck region, blood and tissue eosinophilia, and elevated serum immunoglobulin E levels. We report an unusual case of a 40-year-old woman found to have KD of the breast which presented clinically as carcinoma, leading to a diagnostic dilemma. To the best of our knowledge, this is the first case of KD in the breast to be documented in the literature. The patient also had scabies, which may have provided the stimulus for hypersensitivity, which is considered to be the pathogenetic mechanism responsible for development of KD.

DOI: 10.1111/tbj.12603
PMID: 27058987 [PubMed - as supplied by publisher]

52: Kakkar A, Sharma MC, Yadav R, Panwar R, Mathur SR, Iyer VK, Sahni P. Pancreatic mixed serous neuroendocrine neoplasm with clear cells leading to diagnosis of von Hippel Lindau disease. Pathol Res Pract. 2016 Aug;212(8):747-50. doi: 10.1016/j.prp.2016.04.008. PubMed PMID: 27161305.

Mixed serous neuroendocrine neoplasms are extremely rare tumors that are usually seen in female patients and are often associated with von Hippel Lindau (VHL) disease. We describe the case of a 38-year-old male who presented with complaints of anorexia, weight loss, and abdominal pain. CT abdomen showed a mass in the head of the pancreas, multiple small nodules in the body of pancreas, and bilateral adrenal masses. Fine needle aspiration cytology (FNAC) from the mass showed features of a neuroendocrine tumor, with many of the cells demonstrating abundant clear cytoplasm. Histopathological examination of the pancreaticoduodenectomy specimen showed a mixed serous neuroendocrine neoplasm with two components viz. serous cystadenoma and neuroendocrine tumor (NET) World Health Organization (WHO) grade 2. In addition, he was diagnosed to have bilateral pheochromocytomas and a paraganglioma. The synchronicity of these tumors suggested the possibility of VHL disease. Thus, identification of a NET with clear cells or of a mixed serous neuroendocrine neoplasm should raise suspicion of VHL disease. In a mixed tumor, FNAC may identify only one of the two components. Thorough processing of all pancreatic serous tumors for pathological examination is recommended, as NET may occur as a small nodule within the serous cystadenoma.

DOI: 10.1016/j.prp.2016.04.008
PMID: 27161305 [PubMed - in process]

53: Kant S, Haldar P, Singh AK, Archana S, Misra P, Rai S. Profile of pregnant women using delivery hut services of the Ballabgarh Health and Demographic Surveillance System in rural north India. Int J Gynaecol Obstet. 2016 Aug;134(2):173-6. doi: 10.1016/j.ijgo.2016.01.012. PubMed PMID: 27180279.

OBJECTIVE: To describe women who attended two delivery huts in rural Haryana, India.
METHODS: The present observational study assessed routinely collected service provision data from two delivery huts located at primary health centers in the district of Faridabad. Data on sociodemographic characteristics, prenatal care, use of free transport services, and maternal and neonatal indicators at delivery were assessed for all pregnant women who used the delivery hut services from January 2012 to June 2014.
RESULTS: During the study period, 1796 deliveries occurred at the delivery huts. The mean age of the mothers was 23.3 ± 3.3 years (95% confidence interval 23.1-23.5). Of 1648 mothers for whom data were available, 1039 (63.0%) had travelled less than 5 km to the delivery hut. The proportion of mothers who belonged to a lower caste increased from 31.0% (193/622) in 2012 to 41.1% (162/394) in 2014. The proportion of mothers who were illiterate also increased, from 8.1% (53/651) in 2012 to 26.4% (104/394) in 2014.
CONCLUSION: Belonging to a disadvantaged social group (in terms of caste or education) was not an obstacle to use of delivery hut services. The delivery huts might have satisfied some unmet needs of community members in rural India.

DOI: 10.1016/j.ijgo.2016.01.012
PMID: 27180279 [PubMed - in process]

54: Kapoor V, Aggarwal S, Das SN. 6-Gingerol Mediates its Anti Tumor Activities in Human Oral and Cervical Cancer Cell Lines through Apoptosis and Cell Cycle Arrest. Phytother Res. 2016 Apr;30(4):588-95. doi: 10.1002/ptr.5561. PubMed PMID: 26749462.

6-Gingerol, a potent nutraceutical, has been shown to have antitumor activity in different tumors, although its mechanism of action is not well understood. In this study, we evaluated antitumor activities of 6-gingerol on human oral (SCC4, KB) and cervical cancer (HeLa) cell lines with or without wortmannin, rapamycin, and cisplatin. Tumor cell proliferation was observed using 3-(4,5-dimethylthiazol-2-yl)-5-(3-carboxymethoxyphenyl)-2-(4-sulfophenyl)-2H tetrazolium, inner salt assay, cell cycle analysis by propidium iodide labeling and flow cytometry, apoptosis by Annexin-V binding assay, and caspase activity by chemiluminescence assay. 6-Gingerol showed dose-dependent cytotoxicity in all three cell lines. Combinations of 6-gingerol with wortmannin and cisplatin showed additive effects, while with rapamycin, it showed 50% cytotoxicity that was equivalent to IC50 of 6-gingerol alone. Treatment with 6-gingerol resulted in G2-phase arrest in KB and HeLa cells and S-phase arrest in SCC4 cells. 6-Gingerol, wortmannin, and rapamycin treatment showed almost two-fold higher expression of caspase 3 in all cell lines. The results imply that 6-gingerol either alone or in combination with PI-3K inhibitor and cisplatin may provide better therapeutic effects in oral and cervical carcinoma. Thus, 6-gingerol appears to be a safe and potent chemotherapeutic/chemopreventive compound acting through cell cycle arrest and induction of apoptosis in human oral and cervical tumor cells.

DOI: 10.1002/ptr.5561
PMID: 26749462 [PubMed - indexed for MEDLINE]

55: Khare A, Joshi D, Majumdar K, Gupta V, Goel G, Kapoor N. Cytological findings of odontogenic myxofibroma: A diagnostic dilemma. Diagn Cytopathol. 2016 Apr;44(4):329-33. doi: 10.1002/dc.23420. PubMed PMID: 26801006.

Odontogenic myxofibroma represents a rare slow-growing benign neoplasm, which usually occurs in the second and third decades of life and rarely in children or adults over 50 years of age. Myxomas in general represent from 2.3% to 17.7% of all odontogenic tumors, and myxofibromas represent a small number of all myxomas. Limited evidence is present in literature regarding the cytological diagnosis of odontogenic myxoma/myxofibroma. We hereby report the cytomorphological features of a histologically confirmed case of odontogenic myxofibroma and the pitfalls of the cytological diagnosis. A painless jaw swelling in a young boy was aspirated. Scanty mucoid material was obtained. Cytology Smears were moderately cellular and showed a population comprising predominantly of singly scattered plump to fusiform cells with bipolar cytoplasmic processes showing mild to moderate atypia embedded within dense myxoid matrix and another population of cells arranged in clusters. Case was interpreted as low grade mesenchymal tumor. Subsequent biopsy confirmed it as odontogenic myxofibroma arising in a odontogenic keratocyst. Precise interpretation of intraosseous jaw lesions FNAC may not always be possible, but an attempt should be made to broadly classify the lesion as an inflammatory lesion, cystic lesion, giant cell lesion, fibro-osseous lesion or as an odontogenic tumor. If dual population of odontogenic epithelium and mesenchymal cells embedded in myxoid matrix are identified in such aspirates, a possibility of myxoid odontogenic tumor may be suggested. Triple correlation of cytological, clinical and radiological findings can guide the surgeon for taking appropriate therapeutic decisions.

DOI: 10.1002/dc.23420
PMID: 26801006 [PubMed - in process]

56: Khokhar S, Gupta S, Tewari R, Agarwal R, Gogia V, Sinha G, Agarwal T. Scleral tunnel phacoemulsification: Approach for eyes with severe microcornea. Indian J Ophthalmol. 2016 Apr;64(4):320-2. doi: 10.4103/0301-4738.182949. PubMed PMID: 27221687; PubMed Central PMCID: PMC4901853.

Cataract surgery in eyes with microcornea is associated with frequent complications such as corneal edema, posterior capsular rent, and risk of unplanned aphakia. We describe an improved surgical technique for the creation of surgical incisions during phacoemulsification in eyes with cataract associated with microcornea. A retrospective analysis of eight patients (8 eyes) operated at our center was undertaken. The mean age of the patients was 29.5 ± 10.9 years. All eyes were operated using the scleral pocket incision for phacoemulsification. This scleral pocket incision was tangential to the limbus and created approximately 2.5 mm behind limbus through which phacoemulsification probe was inserted. Because of the posterior placement of incision, the anterior chamber crowding was minimized. There was no incidence of port-site peripheral corneal edema. Fifty percent eyes developed transient central corneal edema, the intraocular lens in bag was implanted in 5/8 eyes, and none developed Descemet's membrane detachment. Mean best-corrected visual acuity improved from 1.85 ± 0.38 logarithm of minimum angle of resolution (LogMAR) to 1.26 ± 0.70 LogMAR postoperatively (P = 0.01; paired t-test). Posterior incision placement during phacoemulsification in microcornea helps achieve favorable postoperative outcomes in contrast to outcomes using clear corneal approach described in literature.

DOI: 10.4103/0301-4738.182949
PMCID: PMC4901853
PMID: 27221687 [PubMed - in process]

57: Khor CC, Do T, Jia H, Nakano M, George R, Abu-Amero K, Duvesh R, Chen LJ, Li Z, Nongpiur ME, Perera SA, Qiao C, Wong HT, Sakai H, Barbosa de Melo M, Lee MC, Chan AS, Azhany Y, Dao TL, Ikeda Y, Perez-Grossmann RA, Zarnowski T, Day AC, Jonas JB, Tam PO, Tran TA, Ayub H, Akhtar F, Micheal S, Chew PT, Aljasim LA, Dada T, Luu TT, Awadalla MS, Kitnarong N, Wanichwecharungruang B, Aung YY, Mohamed-Noor J, Vijayan S, Sarangapani S, Husain R, Jap A, Baskaran M, Goh D, Su DH, Wang H, Yong VK, Yip LW, Trinh TB, Makornwattana M, Nguyen TT, Leuenberger EU, Park KH, Wiyogo WA, Kumar RS, Tello C, Kurimoto Y, Thapa SS, Pathanapitoon K, Salmon JF, Sohn YH, Fea A, Ozaki M, Lai JS, Tantisevi V, Khaing CC, Mizoguchi T, Nakano S, Kim CY, Tang G, Fan S, Wu R, Meng H, Nguyen TT, Tran TD, Ueno M, Martinez JM, Ramli N, Aung YM, Reyes RD, Vernon SA, Fang SK, Xie Z, Chen XY, Foo JN, Sim KS, Wong TT, Quek DT, Venkatesh R, Kavitha S, Krishnadas SR, Soumittra N, Shantha B, Lim BA, Ogle J, de Vasconcellos JP, Costa VP, Abe RY, de Souza BB, Sng CC, Aquino MC, Kosior-Jarecka E, Fong GB, Tamanaja VC, Fujita R, Jiang Y, Waseem N, Low S, Pham HN, Al-Shahwan S, Craven ER, Khan MI, Dada R, Mohanty K, Faiq MA, Hewitt AW, Burdon KP, Gan EH, Prutthipongsit A, Patthanathamrongkasem T, Catacutan MA, Felarca IR, Liao CS, Rusmayani E, Istiantoro VW, Consolandi G, Pignata G, Lavia C, Rojanapongpun P, Mangkornkanokpong L, Chansangpetch S, Chan JC, Choy BN, Shum JW, Than HM, Oo KT, Han AT, Yong VH, Ng XY, Goh SR, Chong YF, Hibberd ML, Seielstad M, Png E, Dunstan SJ, Chau NV, Bei J, Zeng YX, Karkey A, Basnyat B, Pasutto F, Paoli D, Frezzotti P, Wang JJ, Mitchell P, Fingert JH, Allingham RR, Hauser MA, Lim ST, Chew SH, Ebstein RP, Sakuntabhai A, Park KH, Ahn J, Boland G, Snippe H, Stead R, Quino R, Zaw SN, Lukasik U, Shetty R, Zahari M, Bae HW, Oo NL, Kubota T, Manassakorn A, Ho WL, Dallorto L, Hwang YH, Kiire CA, Kuroda M, Djamal ZE, Peregrino JI, Ghosh A, Jeoung JW, Hoan TS, Srisamran N, Sandragasu T, Set SH, Doan VH, Bhattacharya SS, Ho CL, Tan DT, Sihota R, Loon SC, Mori K, Kinoshita S, Hollander AI, Qamar R, Wang YX, Teo YY, Tai ES, Hartleben-Matkin C, Lozano-Giral D, Saw SM, Cheng CY, Zenteno JC, Pang CP, Bui HT, Hee O, Craig JE, Edward DP, Yonahara M, Neto JM, Guevara-Fujita ML, Xu L, Ritch R, Liza-Sharmini AT, Wong TY, Al-Obeidan S, Do NH, Sundaresan P, Tham CC, Foster PJ, Vijaya L, Tashiro K, Vithana EN, Wang N, Aung T. Genome-wide association study identifies five new susceptibility loci for primary angle closure glaucoma. Nat Genet. 2016 May;48(5):556-62. doi: 10.1038/ng.3540. PubMed PMID: 27064256.

Primary angle closure glaucoma (PACG) is a major cause of blindness worldwide. We

conducted a genome-wide association study (GWAS) followed by replication in a combined total of 10,503 PACG cases and 29,567 controls drawn from 24 countries across Asia, Australia, Europe, North America, and South America. We observed significant evidence of disease association at five new genetic loci upon meta-analysis of all patient collections. These loci are at EPDR1 rs3816415 (odds ratio (OR) = 1.24, P = 5.94 × 10(-15)), CHAT rs1258267 (OR = 1.22, P = 2.85 × 10(-16)), GLIS3 rs736893 (OR = 1.18, P = 1.43 × 10(-14)), FERMT2 rs7494379 (OR = 1.14, P = 3.43 × 10(-11)), and DPM2-FAM102A rs3739821 (OR = 1.15, P = 8.32 × 10(-12)). We also confirmed significant association at three previously described loci (P < 5 × 10(-8) for each sentinel SNP at PLEKHA7, COL11A1, and PCMTD1-ST18), providing new insights into the biology of PACG.

DOI: 10.1038/ng.3540
PMID: 27064256 [PubMed - in process]

58: Kulkarni K, Karssiens T, Kumar V, Pandit H. Obesity and osteoarthritis. Maturitas. 2016 Jul;89:22-8. doi: 10.1016/j.maturitas.2016.04.006. Review. PubMed PMID: 27180156.

This paper provides an up-to-date review of obesity and lower limb osteoarthritis (OA). OA is a major global cause of disability, with the knee being the most frequently affected joint. There is a proven association between obesity and knee OA, and obesity is suggested to be the main modifiable risk factor. Obese patients (Body Mass Index, BMI, over 30kg/m(2)) are more likely to require total knee arthroplasty (TKA). The global prevalence of obesity has doubled since 1980; by 2025, 47% of UK men and 36% of women are forecast to be obese. This rising global burden is a key factor in the growing rise in the use of TKA. It is therefore important to appreciate the outcomes of surgery in patients with end-stage OA and a high BMI. This review found that while OA is felt to contribute to weight gain, it is unclear whether TKA facilitates weight reduction. Surgery in obese patients is more technically challenging. This is reflected in the evidence, which suggests higher rates of short- to medium-term complications following TKA, including wound infection and medical complications, resulting in longer hospital stay, and potentially higher rates of malalignment, dislocation, and early revision. However, despite slower initial recovery and possibly lower functional scores and implant survival in the longer term, obese patients can still benefit from TKA in terms of improved function, quality of life and satisfaction. In conclusion, despite higher risks and more uncertain outcomes of surgery, higher BMI in itself should not be a contraindication to TKA; instead, each patient's individual circumstances should be considered.

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PMID: 27180156 [PubMed - in process]

59: Kumar MV, Choudhary SK, Talwar S, Gharde P, Sahu M, Kumar S, Chandra D, Saxena R, Kumar L, Airan B. Extraanatomic Bypass to Supraceliac Abdominal Aorta for Complex Thoracic Aortic Obstruction. Ann Thorac Surg. 2016 Apr;101(4):1552-7. doi: 10.1016/j.athoracsur.2015.10.080. PubMed PMID: 26857636.

BACKGROUND: The standard surgical treatment of coarctation of the aorta is through a left posterolateral thoracotomy. However, when a concomitant cardiac procedure is required or the conventional approach is not possible or is hazardous, extraanatomic bypass to the supraceliac abdominal aorta may be advantageous. We discuss our technique and report the long-term results. METHODS: Between January 1986 and January 2015, 25 patients (16 males, 9 females) underwent extraanatomic bypass to the supraceliac abdominal aorta for various lesions of the arch and the descending thoracic aorta. Extraanatomic bypass to the supraceliac abdominal aorta was performed for patients in whom balloon dilatation was not feasible due to associated arch hypoplasia (n = 9), long-segment thoracic aorta narrowing due to nonspecific aortoarteritis (n = 3), or isolated long-segment coarctation of the aorta (n = 3). Patients who needed concomitant cardiac procedures, such as aortic valve replacement (n = 4),

ascending aortic aneurysm repair (n = 2), or coronary artery bypass grafting (n = 1), and in whom balloon dilatation had failed, also underwent extraanatomic bypass to the supraceliac abdominal aorta. Extraanatomic bypass was also performed in 3 patients with recurrent coarctation after surgical repair and in whom balloon dilation was not feasible or unsuccessful.
RESULTS: There were no early or late deaths. The peak-to-peak gradients between the upper limb and the lower limb decreased from 59.3 ± 16.3 mm Hg to 2.0 ± 2.8 mm Hg ($p < 0.0001$). The mean follow-up was 96.6 ± 92.6 months (range, 1 to 240 months; median, 54 months). Doppler interrogation of the lower limb arterial system after a mean follow-up of 86.4 ± 85.2 months showed an unobstructed flow pattern. The ankle-brachial pressure index improved from a preoperative value of 0.60 ± 0.07 to 1.04 ± 0.11 ($p < 0.0001$). Systolic blood pressure decreased significantly compared with preoperative values (153.9 ± 18.9 vs 122.8 ± 10.2, $p < 0.0001$). Three patients continued to receive antihypertensive medication due to persistent mild hypertension.
CONCLUSIONS: Extraanatomic bypass to the supraceliac abdominal aorta provides effective palliation for complex aortic obstructions. It is easy and quick to perform, avoids fatal complications, and is well tolerated in all age groups.

DOI: 10.1016/j.athoracsur.2015.10.080
PMID: 26857636 [PubMed - indexed for MEDLINE]

60: Kumar P, Kumar A, Srivastava MK, Misra S, Pandit AK, Prasad K. Association of Transforming Growth Factor Beta-1-509C/T Gene Polymorphism with Ischemic Stroke: A Meta Analysis. Basic Clin Neurosci. 2016 Apr;7(2):91-6. doi: 10.15412/J.BCN.03070202. Review. PubMed PMID: 27303603; PubMed Central PMCID: PMC4892324.

INTRODUCTION: Transforming Growth Factor-Beta 1 (TGF-β1) is a pleiotropic cytokine with potent anti-inflammatory property, which has been considered as an essential risk factor in the inflammatory process of Ischemic Stroke (IS), by involving in the pathophysiological progression of hypertension, atherosclerosis, and lipid metabolisms. -509C/T TGF-β1 gene polymorphism has been found to be associated with the risk of IS. The aim of this meta-analysis was to provide a relatively comprehensive account of the relation between -509C/T gene polymorphisms of TGF-β1 and susceptibility to IS.
METHODS: A review of literature for eligible genetic association Studies published before October 20, 2014 was conducted in the PubMed, EMBASE, Google Scholar and Trip database. The strength of association was calculated by pooled odds ratios (ORs) with 95% confidence intervals using RevMan 5.3 software. Heterogeneity was examined using Higgins I-squared, Tau-squared, and Chi-squared tests.
RESULTS: A total of 2 studies involving 614 cases and 617 controls were found. The overall estimates did not show any significant relation between TGF-β1-509C/T polymorphism and risk of IS under dominant (CC+CT vs. TT: OR=1.01, 95%CI=0.31 to 3.26; P=0.99), recessive (CC vs. CT+TT: OR=0.94, 95%CI=0.47 to 1.90; P=0.87), and allelic models (T vs. C: OR=1.06, 95%CI=0.55 to 2.04; P=0.86).
CONCLUSION: This meta-analysis showed that TGF-β1-509C/T gene polymorphism has no significant association with the susceptibility of IS. Further well-designed prospective studies with larger sample size are needed to confirm these findings.

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PMCID: PMC4892324
PMID: 27303603 [PubMed]

61: Kumar P, Misra S, Kumar A, Pandit AK, Chakravarty K, Prasad K. Association between Tumor Necrosis Factor-α (-238G/A and -308G/A) Gene Polymorphisms and Risk of Ischemic Stroke: A Meta-Analysis. Pulse (Basel). 2016 Apr;3(3-4):217-28. doi: 10.1159/000443770. Review. PubMed PMID: 27195243; PubMed Central PMCID: PMC4865080.

Tumor necrosis factor-α (TNF-α) is a proinflammatory pleiotropic cytokine which may contribute to the initiation and progression of ischemic stroke (IS). Thus far, numerous studies have been performed to examine the association between -238G/A (rs361525) and -308G/A (rs1800629) polymorphisms in the promoter regions of the TNF-α gene and susceptibility to IS, but results are still conflicting. The aim of this meta-analysis is to provide a relatively comprehensive account of the association between TNF-α -238G/A and -308G/A gene polymorphisms and susceptibility to IS. A literature search for eligible candidate gene studies published before April 20, 2015, was conducted in the PubMed, Medline, EMBASE and Google Scholar databases. The following combinations of main keywords were used: ('Tumor Necrosis Factor-Alpha' or 'TNF-α') and ('ischemic stroke' or 'cerebral infarction' or 'IS') and ('genetic polymorphism' or 'single nucleotide polymorphisms' or 'SNP'). Fixed- or random-effect models were used to estimate the pooled odds ratio (OR) and 95% confidence interval (CI). Meta-analysis was carried out by using RevMan 5.3 software. For TNF-α -238G/A gene polymorphism, 7 case-control studies with a total of 1,846 IS patients and 1,905 controls showed a significant association with susceptibility to IS under a dominant model (AA + GA vs. GG; OR, 1.40; 95% CI, 1.11-1.76; p value 0.004). For TNF-α -308G/A gene polymorphism, 16 case-control studies with a total of 5,651 IS patients and 5,792 controls showed a significant protective association with susceptibility to IS under a dominant model (AA + GA vs. GG; OR, 0.78, 95% CI, 0.63-0.97; p value 0.03). Our meta-analysis shows that TNF-α -238G/A gene polymorphism is more likely to be associated with the risk of IS in Caucasian populations as compared to Asian populations. However, TNF-α -308G/A gene polymorphism is more likely to be protective against IS in Asian populations as compared to Caucasian populations. Further large, well-designed prospective epidemiological studies are needed to confirm these findings.

DOI: 10.1159/000443770
PMCID: PMC4865080
PMID: 27195243 [PubMed]

62: Kumar V, Molla K, Chandra P, Kumar A. Dome-shaped macula in oculocutaneous albinism. BMJ Case Rep. 2016 Apr 26;2016. pii: bcr2016215368. doi: 10.1136/bcr-2016-215368. PubMed PMID: 27118754.

63: Kundu R, Prasad G. Successful arterial cannulation in neonates: the 'hanging drop' technique. Paediatr Anaesth. 2016 Apr;26(4):458-9. doi: 10.1111/pan.12844. PubMed PMID: 26956517.

64: Lindner O, Pascual TN, Mercuri M, Acampa W, Burchert W, Flotats A, Kaufmann PA, Kitsiou A, Knuuti J, Underwood SR, Vitola JV, Mahmarian JJ, Karthikeyan G, Better N, Rehani MM, Kashyap R, Dondi M, Paez D, Einstein AJ; INCAPS Investigators Group.. Nuclear cardiology practice and associated radiation doses in Europe: results of the IAEA Nuclear Cardiology Protocols Study (INCAPS) for the 27 European countries. Eur J Nucl Med Mol Imaging. 2016 Apr;43(4):718-28. doi: 10.1007/s00259-015-3270-8. PubMed PMID: 26686336; PubMed Central PMCID: PMC4764636.

CONCLUSION: In Europe, the mean effective dose from nuclear cardiology is lower and the average quality score is higher than in the RoW. There is regional variation in effective dose in relation to the best practice quality score. A possible reason for the differences between Europe and the RoW could be the safety culture fostered by actions under the Euratom directives and the implementation of diagnostic reference levels. Stress-only imaging and weight-adjusted activity might be targets for optimization of European nuclear

cardiology practice.

DOI: 10.1007/s00259-015-3270-8
PMCID: PMC4764636
PMID: 26686336 [PubMed - indexed for MEDLINE]

65: Madan K, Nattusamy L, Jain D, Mohan A, Guleria R. Vocal cord palsy caused by mediastinal tuberculosis. Trop Doct. 2016 Apr;46(2):102-5. doi: 10.1177/0049475515605683. PubMed PMID: 26395269.

66: Madhusudhan KS, Venkatesh HA, Gamanagatti S, Garg P, Srivastava DN. Interventional Radiology in the Management of Visceral Artery Pseudoaneurysms: A Review of Techniques and Embolic Materials. Korean J Radiol. 2016 May-Jun;17(3):351-63. doi: 10.3348/kjr.2016.17.3.351. Review. PubMed PMID: 27134524; PubMed Central PMCID: PMC4842855.

Visceral artery pseudoaneurysms occur mostly as a result of inflammation and trauma. Owing to high risk of rupture, they require early treatment to prevent lethal complications. Knowledge of the various approaches of embolization of pseudoaneurysms and different embolic materials used in the management of visceral artery pseudoaneurysms is essential for successful and safe embolization. We review and illustrate the endovascular, percutaneous and endoscopic ultrasound techniques used in the treatment of visceral artery pseudoaneurysm and briefly discuss the embolic materials and their benefits and risks.

DOI: 10.3348/kjr.2016.17.3.351
PMCID: PMC4842855
PMID: 27134524 [PubMed - in process]

67: Mahalangikar RA, Phalak M. A Letter to Editor. Cardiovasc Intervent Radiol. 2016 Aug;39(8):1213-4. doi: 10.1007/s00270-016-1347-9. PubMed PMID: 27098671.

68: Mahapatra A, Sharma P, Sagar R. Psychotic Symptoms in a Child with Long Standing SLE Nephritis: Neuropsychiatric Manifestation or Sequelae to Lupus? J Can Acad Child Adolesc Psychiatry. 2016 Spring;25(2):125-9. PubMed PMID: 27274749; PubMed Central PMCID: PMC4879953.

Systemic Lupus Erythematosus (SLE) is a prototypic autoimmune disease of unknown etiology, which affects multiple organ systems including the central nervous system (CNS). Though not common, childhood onset SLE is a known and established entity. Neuropsychiatric symptoms are common in childhood onset SLE. Of these, psychosis and behavioural symptoms are relatively rare, and there is no consensus on the proper treatment of such cases. We report a case of 13-year-old boy, diagnosed with lupus nephritis, and presented with psychosis and behavioural symptoms. The highlight of this case is that the psychiatric symptoms were present despite the primary illness being quiescent. Thus, the patient was treated with Olanzapine and lorazepam, while continuing immunosuppressive therapy as previously. Also, MRI brain revealed vasculitic changes in the right hemisphere, which might be one of the etiological factors playing role in the development of these neuropsychiatric symptoms.

Publisher: Le lupus érythémateux systémique (LES) est une maladie auto-immune prototypique d'étiologie inconnue, qui affecte de multiples systèmes organiques, dont le système nerveux central (SNC). Bien qu'il ne soit pas commun, le LES qui apparaît dans l'enfance est une entité connue et établie. Les symptômes neuropsychiatriques sont communs dans le LES qui apparaît dans l'enfance. Parmi ces symptômes, la psychose et les symptômes comportementaux sont relativement rares, et il n'y a pas de consensus sur le traitement adéquat de ces cas. Nous rapportons le cas d'un garçon de 13 ans, ayant reçu un diagnostic de néphrite lupique, et présentant des symptômes de psychose et de comportement. Le fait saillant de ce cas est que les symptômes psychiatriques étaient présents malgré

que la maladie primaire fût dormante. Donc, le patient a été traité par olanzapine et lorazépam, tout en poursuivant une thérapie immunosuppressive comme auparavant. En outre, une IRM du cerveau a révélé des changements vasculitiques dans l'hémisphère droit, ce qui pourrait être l'un des facteurs étiologiques impliqués dans le développement de ces symptômes neuropsychiatriques.

PMCID: PMC4879953
PMID: 27274749 [PubMed]

69: Mahapatra A, Sood M, Bhad R, Tripathi M. Behavioural Variant Frontotemporal Dementia with Bilateral Insular Hypometabolism: A Case Report. J Clin Diagn Res. 2016 Apr;10(4):VD01-VD02. doi: 10.7860/JCDR/2016/16536.7638. PubMed PMID: 27190928; PubMed Central PMCID: PMC4866226.

Fronto-Temporal Dementia (FTD) is a cluster of syndromes, characterized by progressive deterioration of cognition, language and/or behavioural changes associated with degeneration of the frontal and temporal lobes. A 53-year-old man was admitted with a history of gradually progressive behavioural disturbances, disinhibition, unprovoked anger outbursts, apathy, disorganised behaviour and impaired self-care. A clinical diagnosis of Fronto temporal Dementia (behavioural variant) was made. Extensive investigations found no abnormality except in FDG-PET scan of the brain which revealed hypo metabolism in bilateral anterior insular region. Insula is an important brain area implicated in emotional awareness and behaviour control. Hypo metabolism in insular region in the absence of any structural neuroimaging findings, in a case of behavioural variant of Fronto-temporal dementia suggest that, it might be one of the earliest neurobiological changes occurring in this disorder.

DOI: 10.7860/JCDR/2016/16536.7638
PMCID: PMC4866226
PMID: 27190928 [PubMed]

70: Mahey R, Kriplani A, Mogili KD, Bhatla N, Kachhawa G, Saxena R. Randomized controlled trial comparing ferric carboxymaltose and iron sucrose for treatment of iron deficiency anemia due to abnormal uterine bleeding. Int J Gynaecol Obstet. 2016 Apr;133(1):43-8. doi: 10.1016/j.ijgo.2015.09.007. PubMed PMID: 26868063.

OBJECTIVE: To evaluate the efficacy and safety of intravenous ferric carboxymaltose (FCM) in comparison with intravenous iron sucrose (ISC) in the treatment of anemia due to abnormal uterine bleeding (AUB).
METHODS: A randomized controlled trial was conducted between April 2013 and May 2014 in patients older than 18 years of age presenting at a hospital in New Delhi, India, with anemia due to AUB. Patients were randomized in a 1:1 ratio to receive treatment with intravenous FCM or ISC. The primary outcome, increase in hemoglobin above baseline, was monitored over a 12-week period. Patients completing the full treatment and follow-up protocol were included in the analyses. Participants and investigators were not masked to treatment allocations.
RESULTS: Overall, 30 patients were assigned to each group. Increases in mean hemoglobin levels from baseline were significantly higher in the FCM group at 6 weeks (P=0.005). At 12 weeks, there was no significant difference in hemoglobin increase from baseline between the two groups (P=0.11). Adverse events were similar between both treatment groups.
CONCLUSION: Treatment with FCM resulted in a rapid increase in hemoglobin levels in patients with anemia due to AUB, with similar increases in hemoglobin over a 12-week period. Clinical Trial Registration (www.ctri.nic.in):CTRI/2015/09/006224.

DOI: 10.1016/j.ijgo.2015.09.007
PMID: 26868063 [PubMed - in process]

71: Malhotra R, Babhulkar S, Sanjib KB, Clemens A, Dadi A, Iyer R, Kamath S, Mody B, Mutha S, Reddy G, Shah V, Shah V, Shetty N, Tapasvi S, Wadhwa M. Thromboprophylaxis with dabigatran after total hip arthroplasty in Indian patients: A subanalysis of a double-blind, double-dummy, randomized RE-NOVATE II study. Asian J Surg. 2016 Apr 30. pii: S1015-9584(15)00147-5. doi: 10.1016/j.asjsur.2015.10.007. [Epub ahead of print] PubMed PMID: 27143213.

OBJECTIVE: In the Re-NOVATE II study, oral dabigatran provided thromboprophylaxis after total hip arthroplasty and improved compliance postdischarge in a global population. This article aims to identify trends (if any) in the Indian population.
METHODS: In this prospective, double-blind, double-dummy study, patients scheduled for primary, unilateral, elective total hip arthroplasty were randomized to 220 mg oral dabigatran once daily, starting with a 110 mg half-dose, 1-4 hours after surgery, or subcutaneous enoxaparin 40 mg once daily, starting the evening before surgery. Each group received a placebo of the other study drug. The primary efficacy outcome was the composite of total venous thromboembolism (VTE) and all-cause mortality. Secondary outcome measures were composite of major VTE and VTE-related mortality during the treatment period. The major safety outcome was incidence of bleeding events.
RESULTS: Of the 179 Indian patients randomized, 91 received oral dabigatran and 88 received subcutaneous enoxaparin for 28-35 days. Total VTE and all-cause mortality occurred in 18.7% of patients in the dabigatran group and 13.7% in the enoxaparin group [odds ratio = 1.4 (95% confidence interval 0.6, 3.5)]. Major VTE and VTE-related mortality was numerically lower in the dabigatran group (7.9%) compared with the enoxaparin group (9.9%). Safety outcomes were comparable between both groups.
CONCLUSION: Dabigatran is an effective oral alternative to enoxaparin for thromboprophylaxis as demonstrated by the RE-NOVATE II study global results. Data analyzed in Indian patients indicate comparable effects of dabigatran etexilate for major efficacy and safety outcomes.

DOI: 10.1016/j.asjsur.2015.10.007
PMID: 27143213 [PubMed - as supplied by publisher]

72: Marwaha RK, Yenamandra VK, Sreenivas V, Sahay R, Baruah MP, Desai A, Kurvilla S, Joseph S, Unnikrishnan AG, Lakshmy R, Apoorva C, Sharma VK, Sethuraman G. Regional and seasonal variations in ultraviolet B irradiation and vitamin D synthesis in India. Osteoporos Int. 2016 Apr;27(4):1611-7. doi: 10.1007/s00198-015-3427-0. PubMed PMID: 26630977.

Evaluation of ultraviolet B index (UVBI) and its impact on vitamin D synthesis is important. We observed the maximum UVBI between 11 am and 1 pm. There was no increase in serum 25(OH)D levels following sun exposure during winter as the UVBI was significantly low, emphasizing the need for vitamin D supplementation during these months.INTRODUCTION: The amount of vitamin D3 synthesizing UVB irradiation (290-320 nm) reaching the earth's surface at different altitudes and seasons in different parts of India and it's impact on vitamin D synthesis has not been well studied.
METHODS: The hourly UVB index (UVBI) from 10 am to 3 pm everyday for 12 months was measured by a solar meter in 4 different zones (North, Northeast, West and South) of the country. To study the impact of sun light exposure on vitamin D synthesis during winter, healthy school children aged 10-15 years were exposed to sunlight for a period of 30 min per day, between 11 am to 12 noon with 10 % body surface area, for 4 weeks. The main outcome measures were serum 25(OH)D, PTH, calcium, phosphate, and alkaline phosphatase levels before and after sun exposure.
RESULTS: The mean UVBI was highest between 11 am and 1 pm throughout the year in all locations. The highest UVBI was recorded from the North zone (4.5±2.7 μW/Cm(2)), while the least was recorded in the Northeast zone (2.1±1.2 μW/Cm(2)). UVBI readings in the Northeast zone were consistently low

throughout the year, while all the other three zones showed significant seasonal fluctuations. Surprisingly, we observed a significant decrease in serum 25(OH)D levels from baseline (6.3±4.6 to 5.1±2.7 ng/mL; p<0.001) despite sun exposure.
CONCLUSION: The mean UVBI was highest between 11 am and 1 pm throughout the year in all locations. No increase in the serum 25(OH)D levels was observed following sun exposure in winter, emphasizing the need for vitamin D supplementation during these months.

DOI: 10.1007/s00198-015-3427-0
PMID: 26630977 [PubMed - in process]

73: Meena RK, Raj D, Lodha R, Kabra SK. Fractional Exhaled Nitric Oxide for Identification of Uncontrolled Asthma in Children. Indian Pediatr. 2016 Apr;53(4):307-10. PubMed PMID: 27156543.

OBJECTIVE: To determine the utility of Fractional Exhaled Nitric Oxide (FENO) in the identification of uncontrolled asthma in children on therapy, and to identify its cut-off value for determining asthma control.
METHODS: 207 children (age 5-15 y) with physician-diagnosed asthma on therapy with at least 12 months follow up were enrolled. Spirometry and FENO measurements were performed. Asthma control was assessed as per GINA guidelines. Sensitivity and specificity of various cut-off values of FENO (15 ppb, 20 ppb, 25 ppb, 30 ppb) for identification of status of control of asthma were calculated.
RESULTS: 156 (75%) children had uncontrolled or partly controlled asthma and 51 children were assessed to have controlled asthma. Median (IQR) FENO in children with controlled and uncontrolled asthma was 16 (11-23) ppb and 13 (11-25) ppb, respectively (P=0.26). No FENO cut-off had a reasonable combination of sensitivity and specificity to discriminate between controlled and uncontrolled asthma.
CONCLUSIONS: FENO, in itself, does not have good discriminatory value in assessment of controlled and uncontrolled asthma in children on asthma therapy.

PMID: 27156543 [PubMed - in process]

74: Mishra J, Sagar R, Joseph AA, Gazzaley A, Merzenich MM. Training sensory signal-to-noise resolution in children with ADHD in a global mental health setting. Transl Psychiatry. 2016 Apr 12;6:e781. doi: 10.1038/tp.2016.45. PubMed PMID: 27070409; PubMed Central PMCID: PMC4872403.

Children with attention deficit/hyperactivity disorder (ADHD) have impaired focus on goal-relevant signals and fail to suppress goal-irrelevant distractions. To address both these issues, we developed a novel neuroplasticity-based training program that adaptively trains the resolution of challenging sensory signals and the suppression of progressively more challenging distractions. We evaluated this sensory signal-to-noise resolution training in a small sample, global mental health study in Indian children with ADHD. The children trained for 30 h over 6 months in a double-blind, randomized controlled trial. Training completers showed steady and significant improvements in ADHD-associated behaviors from baseline to post training relative to controls, and benefits sustained in a 6-month follow-up. Post-training cognitive assessments showed significant positive results for response inhibition and Stroop interference tests in training completers vs controls, while measures of sustained attention and short-term memory showed nonsignificant improvement trends. Further, training-driven improvements in distractor suppression correlated with the improved ADHD symptoms. This initial study suggests utility of signal-to-noise resolution training for children with ADHD; it emphasizes the need for further research on this intervention and substantially informs the design of a larger trial.

DOI: 10.1038/tp.2016.45
PMCID: PMC4872403
PMID: 27070409 [PubMed - in process]

75: Mitra A, Bajpai M. Impacted Sharp Oesophageal Foreign Bodies--A Novel Technique of Removal with the Paediatric Bronchoscope. J Trop Pediatr. 2016 Apr;62(2):161-4. doi: 10.1093/tropej/fmv075. PubMed PMID: 26851436; PubMed Central PMCID: PMC4886110.

Sharp foreign bodies in the oesophagus may present as an entirely asymptomatic child with only radiological evidence but require emergent surgical management. Safety pins, razor blades and needles are a few of the commonly ingested sharp objects in developing countries. The open safety pin is a particularly interesting clinical problem, as the management depends on its location and orientation. Many methods and instruments have been used over the years to remove them from the upper digestive tract. We present a novel method using the rigid paediatric bronchoscope and alligator forceps for the extraction of this unusual foreign body from the oesophagus of a 6 year old girl.

DOI: 10.1093/tropej/fmv075
PMCID: PMC4886110 [Available on 2017-04-01]
PMID: 26851436 [PubMed - in process]

76: Mohan A, Poulose R, Kulshreshtha I, Chautani AM, Madan K, Hadda V, Guleria R. High prevalence of malnutrition and deranged relationship between energy demands and food intake in advanced non-small cell lung cancer. Eur J Cancer Care (Engl). 2016 Apr 21. doi: 10.1111/ecc.12503. [Epub ahead of print] PubMed PMID: 27099023.

The relation between dietary intake and metabolic profile in non-small cell lung cancer (NSCLC) was evaluated. Patients with NSCLC were recruited and their caloric requirement and resting energy expenditure (REE) were calculated using the Harris-Benedict equation and Katch-McArdle formula respectively. Hypermetabolic state was defined as REE more than 10% above the basal metabolic rate (BMR). Body composition parameters were calculated by bioelectric impedance method. The 24-h dietary intake method and Malnutrition Universal Screening Tool assessed nutritional intake. One hundred and forty-eight subjects were included (87% males). Of these, 46.6% subjects were hypermetabolic and 31% cachexic, with lower calorie and protein intakes than recommended, although per cent of total energy derived from protein, fat and carbohydrates were similar. Hypermetabolic patients had lower BMI, though the per cent deficit in energy and protein consumption was similar. Cachexia was associated with lower BMR but not with deficit in energy or protein consumption. No correlation was seen between dietary intake and body composition parameters. The calorie and protein intake of NSCLC patients is lower than recommended. The discordance between elevated REE and dietary intake implies that the relationship between increased energy demands and food intake may be altered.

DOI: 10.1111/ecc.12503
PMID: 27099023 [PubMed - as supplied by publisher]

77: Mondal K, Chakravarti S, Ghosh AK, Kumar S, Nayak B, Nandi S, Sarkar U, Deb R, De A, Biswas J. Novel identification of Factor XI deficiency in Indian Sahiwal (Bos indicus) cattle. Mol Biol Rep. 2016 Apr;43(4):213-9. doi: 10.1007/s11033-016-3955-5. PubMed PMID: 26892783.

Factor-XI deficiency (FXID) is inherited as autosomal lethal recessive disorder of carrier Holstein-Friesian bulls. A 76 base pair segment insertion into exon 12 in Factor-XI gene causes FXID in cattle. Keeping this in view the present study was conducted to screen breeding bulls of both indigenous and exotic breeds for mutation in Factor-XI gene and to find out the frequency of FXID carrier animals in breeding bulls. A total of 120 bulls of different age group maintained at Frozen Semen Bull Station, India were randomly selected from different cattle

breeds to screen presence of FXID syndrome in breeding sires. Genomic DNA was isolated from blood of the selected bulls. PCR parameters were standardized to obtain 244 and 320 bp amplicons. The results showed that 2 Sahiwal bulls out of 120 animals were carrier for FXID. Amplicons of the carrier animals were sequenced and annoted, which confirms a 76 bp insertion in the exon 12. Bleeding and clotting time showed considerable discrepancy in the carrier animals as compared to the normal animals. The findings of relative mRNA expression of Factor XI transcript revealed identical tendency in the carrier. The frequency of carrier animals and mutant allele was 2.5 % and 0.025 respectively. This study recommends for screening of breeding at AI bull centers in the country for FXID. The study also stands a merit for identification of FXID carrier in Bos indicus for the first time.

DOI: 10.1007/s11033-016-3955-5
PMID: 26892783 [PubMed - in process]

78: Motley WW 3rd, Golnik KC, Anteby I, Atilla H, Gole GA, Murillo C, Olitsky SE, Pilling RF, Reddy AR, Sharma P, Siatkowski RM, Yadarola MB. Validity of ophthalmology surgical competency assessment rubric for strabismus surgery in resident training. J AAPOS. 2016 Apr;20(2):184-5. doi: 10.1016/j.jaapos.2015.12.007. PubMed PMID: 27079603.

The Accreditation Council for Graduate Medical Education (ACGME) requires US residency programs to assess ophthalmology residents for competency in 6 core areas. Ophthalmic surgical skills are currently part of the ACGME "Patient Care" competency, although some have advocated for a seventh competency, "Surgical Skills." The Ophthalmology Surgical Competency Assessment Rubric for Strabismus Surgery in Resident Training (OSCAR: Strabismus) tool was designed to aid in the assessment of surgical skills using procedure specific behavioral anchors. The present study evaluated inter-rater agreement of the
OSCAR: Strabismus tool in the assessment of resident performance.
OSCAR: Strabismus evaluations of resident surgical strabismus cases were performed by a multinational group of faculty strabismus surgeons. Cronbach α statistical analysis of the completed evaluations revealed high inter-rater agreement, indicating the
OSCAR: Strabismus is a reliable tool to facilitate assessment of resident strabismus surgical skills.

DOI: 10.1016/j.jaapos.2015.12.007
PMID: 27079603 [PubMed - indexed for MEDLINE]

79: Mukherjee A, Agarwal KK, Gogia A, Bal C, Kumar R. Bilateral Renal Involvement in Mantle Cell Lymphoma on FDG PET/CT. Clin Nucl Med. 2016 Apr;41(4):e206-7. doi: 10.1097/RLU.0000000000001104. PubMed PMID: 26914553.

Mantle cell lymphoma (MCL) is a rare aggressive lymphoid neoplasm occurring in approximately 3% to 10% of non-Hodgkin lymphomas. Renal involvement is rarely reported in case of MCL. We hereby described a case of MCL in a 76-year-old man in whom bilateral renal involvement was detected on FDG PET/CT. The patient underwent chemotherapy, and follow-up PET/CT reveals resolution of the renal lesions.

DOI: 10.1097/RLU.0000000000001104
PMID: 26914553 [PubMed - indexed for MEDLINE]

80: Murthy GV, Gilbert CE, Shukla R, Vashist P, Shamanna BR. Situational analysis of services for diabetes and diabetic retinopathy and evaluation of programs for the detection and treatment of diabetic retinopathy in India: Methods for the India 11-city 9-state study. Indian J Endocrinol Metab. 2016 Apr;20(Suppl 1):S19-25. doi: 10.4103/2230-8210.179770. PubMed PMID: 27144132; PubMed Central PMCID: PMC4847445.

BACKGROUND: Diabetic retinopathy (DR) is a leading cause of visual impairment in India. Available evidence shows that there are more than 60 million persons with diabetes in India and that the number will increase to more than a 100 million by 2030. There is a paucity of data on the perceptions and practices of persons with diabetes and the available infrastructure and uptake of services for DR in India.
OBJECTIVES: Assess perception of care and challenges faced in availing eye care services among persons with diabetics and generate evidence on available human resources, infrastructure, and service utilization for DR in India.
METHODS: The cross-sectional, hospital-based survey was conducted in eleven cities across 9 States in India. In each city, public and private providers of eye-care were identified. Both multispecialty and standalone facilities were included. Specially designed semi-open ended questionnaires were administered to the clients. Semi-structured interviews were administered to the service providers (both diabetic care physicians and eye care teams) and observational checklists were used to record findings of the assessment of facilities conducted by a dedicated team of research staff.
RESULTS: A total of 859 units were included in this study. This included 86 eye care and 73 diabetic care facilities, 376 persons with diabetes interviewed in the eye clinics and 288 persons with diabetes interviewed in the diabetic care facilities.
CONCLUSIONS: The findings will have significant implications for the organization of services for persons with diabetes in India.

DOI: 10.4103/2230-8210.179770
PMCID: PMC4847445
PMID: 27144132 [PubMed]

81: Nair N, Satapathy AK, Gupta N, Kabra M, Gupta AK, Jana M. Spondylometaphyseal Dysplasia Corner Fracture (Sutcliffe) Type. Indian J Pediatr. 2016 Oct;83(10):1191-4. doi: 10.1007/s12098-016-2121-3. PubMed PMID: 27130511.

Spondylometaphyseal dysplasia corner fracture type (Sutcliffe) is an uncommon form of skeletal dysplasia which has some unique imaging features. The differential diagnoses include other forms of spondylometaphyseal dysplasias and non-accidental injury. The case report describes a child with typical imaging findings of this clinical entity with a brief discussion of the diagnostic clue and differential diagnoses.

DOI: 10.1007/s12098-016-2121-3
PMID: 27130511 [PubMed - in process]

82: Nair VP, Anang S, Subramani C, Madhvi A, Bakshi K, Srivastava A, Shalimar, Nayak B, Ranjith Kumar CT, Surjit M. Endoplasmic Reticulum Stress Induced Synthesis of a Novel Viral Factor Mediates Efficient Replication of Genotype-1 Hepatitis E Virus. PLoS Pathog. 2016 Apr 1;12(4):e1005521. doi: 10.1371/journal.ppat.1005521. PubMed PMID: 27035822; PubMed Central PMCID: PMC4817972.

Hepatitis E virus (HEV) causes acute hepatitis in many parts of the world including Asia, Africa and Latin America. Though self-limiting in normal individuals, it results in ~30% mortality in infected pregnant women. It has also been reported to cause acute and chronic hepatitis in organ transplant patients. Of the seven viral genotypes, genotype-1 virus infects humans and is a major public health concern in South Asian countries. Sporadic cases of genotype-3 and 4 infection in human and animals such as pigs, deer, mongeese have been reported primarily from industrialized countries. Genotype-5, 6 and 7 viruses are known to infect animals such as wild boar and camel, respectively. Genotype-3 and 4

viruses have been successfully propagated in the laboratory in mammalian cell culture. However, genotype-1 virus replicates poorly in mammalian cell culture and no other efficient model exists to study its life cycle. Here, we report that endoplasmic reticulum (ER) stress promotes genotype-1 HEV replication by inducing cap-independent, internal initiation mediated translation of a novel viral protein (named ORF4). Importantly, ORF4 expression and stimulatory effect of ER stress inducers on viral replication is specific to genotype-1. ORF4 protein sequence is mostly conserved among genotype-1 HEV isolates and ORF4 specific antibodies were detected in genotype-1 HEV patient serum. ORF4 interacted with multiple viral and host proteins and assembled a protein complex consisting of viral helicase, RNA dependent RNA polymerase (RdRp), X, host eEF1α1 (eukaryotic elongation factor 1 isoform-1) and tubulinβ. In association with eEF1α1, ORF4 stimulated viral RdRp activity. Furthermore, human hepatoma cells that stably express ORF4 or engineered proteasome resistant ORF4 mutant genome permitted enhanced viral replication. These findings reveal a positive role of ER stress in promoting genotype-1 HEV replication and pave the way towards development of an efficient model of the virus.

DOI: 10.1371/journal.ppat.1005521
PMCID: PMC4817972
PMID: 27035822 [PubMed - indexed for MEDLINE]

83: Nambirajan A, Malgulwar PB, Sharma MC, Singh A, Pathak P, Satyarthee GD, Garg A. C11orf95-RELA fusion present in a primary intracranial extra-axial ependymoma: Report of a case with literature review. Neuropathology. 2016 Oct;36(5):490-495. doi: 10.1111/neup.12299. PubMed PMID: 27121356.

Ependymomas are gliomas that recapitulate the ependymal cells microscopically and ultrastructurally. They commonly occur along the ventricular surfaces and central canal of the brain and spinal cord. Intracranial extra-axial ependymoma (IEAE) is a rare entity and is commonly misdiagnosed clinically and radiologically as a meningioma. The histogenesis of such IEAEs is obscure. A novel recurrent oncogenic fusion involving the C11orf95 and RELA genes was recently described in supratentorial ependymomas. A 9-year-old girl presented with a dural based parafalcine mass that, in addition to exhibiting classical immunohistochemical features of an ependymoma, also demonstrated C11orf95-RELA fusion, characteristic of supratentorial ependymomas. We suggest that IEAEs share their histogenesis with their intra-axial counterparts, arising either from dural extension of subcortical, subependymal rests or directly from ectopic dural rests.

DOI: 10.1111/neup.12299
PMID: 27121356 [PubMed - in process]

84: Narsaria P, Sankar J, Lodha R. Fatal Outcome of Accidental Vitamin D Overdose. Indian J Pediatr. 2016 Sep;83(9):1040. doi: 10.1007/s12098-016-2109-z. PubMed PMID: 27117380.

85: Nataraj V, Tiwari A, Mathur N, Rani L, Gupta R, Mallick S, Sharma MC, Bakhshi S. Vascular endothelial growth factor expression in pediatric non-Hodgkin lymphoma: A prospective study. Pediatr Hematol Oncol. 2016 Apr;33(3):168-70. doi: 10.3109/08880018.2016.1166536. PubMed PMID: 27184774.

86: Pal A, Parmar A. Forensic issues of involuntary admissions: The Achilles heel of psychiatry residency in general hospital psychiatry unit in India. Asian J Psychiatr. 2016 Apr;20:30-1. doi: 10.1016/j.ajp.2016.01.011. PubMed PMID: 27025468.

87: Panwar R, Pal S, Dash NR, Sahni P, Vij A, Misra MC. Why are we Poor Organ Donors: A Survey Focusing on Attitudes of the Lay Public From Northern India. J Clin Exp Hepatol. 2016 Jun;6(2):81-6. doi: 10.1016/j.jceh.2016.04.001. PubMed PMID: 27493454; PubMed Central PMCID: PMC4963316.

BACKGROUND: Knowledge, sociocultural views, and awareness about organ donation in the general population are important for the success of deceased organ donation. There is an urgent need to gather this information in order to find out the reasons for poor organ donation rates in India.
METHODS: A 30-item questionnaire was designed in the English and Hindi language and was administered to the lay people in order to assess their knowledge, views, and attitude regarding brain death and organ donation.
RESULTS: Three hundred and fifty-two people (male:female = 202:150; mean age = 30.6 ± 13.9 years) completed the questionnaire. Only 70% of the people were aware that the organs can be donated after brain death and only 44% thought that they understood the meaning of brain death. Media and Internet were the preferred sources for seeking information on brain death and organ donation. The majority of people (81.2%) were willing to donate organs after brain death but only 1.4% had registered for organ donation. Lack of awareness (80.1%), religious beliefs and superstitions (63.4%), and lack of faith in the healthcare system (40.3%) were believed to be the most important reasons for poor deceased organ donation rates in India. The survey also highlighted the importance of the opinion of family members and the religious leaders in making the decision for organ donation. Educational qualification above matriculation was significantly associated with the knowledge of brain death and the willingness for organ donation.
CONCLUSION: Lack of awareness appears to be the most important factor for low donation rates in India. Educating people by using media and Internet and conducting awareness programs may help in improving the donation rates.

DOI: 10.1016/j.jceh.2016.04.001
PMCID: PMC4963316 [Available on 2017-06-01]
PMID: 27493454 [PubMed]

88: Prakash S, Balhara Y. Perceptions Related to Pharmacological Treatment of Opioid Dependence Among Individuals Seeking Treatment at a Tertiary Care Center in Northern India: A Descriptive Study. Subst Use Misuse. 2016 Jun 6;51(7):861-9. doi: 10.3109/10826084.2016.1155615. PubMed PMID: 27100203.

BACKGROUND: Perceptions of individuals with opioid dependence regarding medications used for long-term management of the condition have been explored only by a handful of studies. Interestingly, no study had compared the perceptions regarding buprenorphine, buprenorphine-naloxone, and oral naltrexone in the opioid-dependent subjects from the same setting.
OBJECTIVES: The present study aimed to examine the perceptions related to treatment of opioid dependence with buprenorphine, buprenorphine-naloxone, and oral naltrexone among individuals seeking help at a tertiary care center.
METHODS: This was a cross-sectional, observational study with consecutive sampling. Sociodemographic data, Drug Abuse Monitoring System questionnaire, perceptions questionnaire, clinical interview to elicit drug use history, treatment history and details of prior abstinence attempts were completed.
RESULTS: Eighty-five subjects were recruited in the study. Fear of becoming dependent (35.3%) was the most common harm reported while withdrawal control (82.4%) was the most common benefit reported with buprenorphine preparations. Precipitated withdrawals (21.2%) were the most common harm reported and prevention of relapse (53%) was the most common benefit reported with oral naltrexone. While patients who believed that buprenorphine or naltrexone were harmful reported durations of treatment that were much shorter than those who did not so believe, there was no statistically significant difference in the actual duration and period of abstinence ($p = .34$; $p = .62$). Sociodemographic profile, perceptions related to dosing, nature of medication, expectations from treatment, and duration of illness were also described.

DOI: 10.3109/10826084.2016.1155615

PMID: 27100203 [PubMed - in process]

89: Prakash S, Sagar R. Psychiatric classification: Current debate and future directions. Asian J Psychiatr. 2016 Apr;20:15-21. doi: 10.1016/j.ajp.2016.01.013. Review. PubMed PMID: 27025466.

Classification of health related conditions can be a complex task. This is particularly so in case of psychiatric disorders. The present paper reviews the fundamentals of psychiatric classification, including its basis, history, methods of evaluation, the journey so far and future directions. The various criticisms of current classificatory systems and possible solutions are discussed. Special reference to the research domain criteria (RDoC) approach has been made and implications discussed.

DOI: 10.1016/j.ajp.2016.01.013
PMID: 27025466 [PubMed - in process]

90: Prasad K, Singh MB, Ryan H. Corticosteroids for managing tuberculous meningitis. Cochrane Database Syst Rev. 2016 Apr 28;4:CD002244. doi: 10.1002/14651858.CD002244.pub4. Review. PubMed PMID: 27121755; PubMed Central PMCID: PMC4916936.

BACKGROUND: Tuberculous meningitis is a serious form of tuberculosis (TB) that affects the meninges that cover a person's brain and spinal cord. It is associated with high death rates and with disability in people who survive. Corticosteroids have been used as an adjunct to antituberculous drugs to treat people with tuberculous meningitis, but their role has been controversial.
OBJECTIVES: To evaluate the effects of corticosteroids as an adjunct to antituberculous treatment on death and severe disability in people with tuberculous meningitis.
SEARCH METHODS: We searched the Cochrane Infectious Diseases Group Specialized Register up to the 18 March 2016; CENTRAL; MEDLINE; EMBASE; LILACS; and Current Controlled Trials. We also contacted researchers and organizations working in the field, and checked reference lists.
SELECTION CRITERIA: Randomized controlled trials that compared corticosteroid plus antituberculous treatment with antituberculous treatment alone in people with clinically diagnosed tuberculous meningitis and included death or disability as outcome measures.
DATA COLLECTION AND ANALYSIS: We independently assessed search results and methodological quality, and extracted data from the included trials. We analysed the data using risk ratios (RR) with 95% confidence intervals (CIs) and used a fixed-effect model. We performed an intention-to-treat analysis, where we included all participants randomized to treatment in the denominator. This analysis assumes that all participants who were lost to follow-up have good outcomes. We carried out a sensitivity analysis to explore the impact of the missing data.

MAIN RESULTS: Nine trials that included 1337 participants (with 469 deaths) met the inclusion criteria.At follow-up from three to 18 months, steroids reduce deaths by almost one quarter (RR 0.75, 95% CI 0.65 to 0.87; nine trials, 1337 participants, high quality evidence). Disabling neurological deficit is not common in survivors, and steroids may have little or no effect on this outcome (RR 0.92, 95% CI 0.71 to 1.20; eight trials, 1314 participants, low quality evidence). There was no difference between groups in the incidence of adverse events, which included gastrointestinal bleeding, invasive bacterial infections, hyperglycaemia, and liver dysfunction.One trial followed up participants for five years. The effect on death was no longer apparent at this time-point (RR 0.93, 95% CI 0.78 to 1.12; one trial, 545 participants, moderate quality evidence); and there was no difference in disabling neurological deficit detected (RR 0.91, 95% CI 0.49 to 1.69; one trial, 545 participants, low quality evidence).One trial included human immunodeficiency virus (HIV)-positive people. The stratified analysis by HIV status in this trial showed no heterogeneity, with point

estimates for death (RR 0.90, 95% CI 0.67 to 1.20; one trial, 98 participants) and disability (RR 1.23, 95% CI 0.08 to 19.07; one trial, 98 participants) similar to HIV-negative participants in the same trial.
AUTHORS' CONCLUSIONS: Corticosteroids reduce mortality from tuberculous meningitis, at least in the short term.Corticosteroids may have no effect on the number of people who survive tuberculous meningitis with disabling neurological deficit, but this outcome is less common than death, and the CI for the relative effect includes possible harm. However, this small possible harm is unlikely to be quantitatively important when compared to the reduction in mortality.The number of HIV-positive people included in the review is small, so we are not sure if the benefits in terms of reduced mortality are preserved in this group of patients.

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PMCID: PMC4916936
PMID: 27121755 [PubMed - indexed for MEDLINE]

91: Purkait S, Sharma V, Kumar A, Pathak P, Mallick S, Jha P, Sharma MC, Suri V, Julka PK, Suri A, Sharma BS, Sarkar C. Expression of DNA methyltransferases 1 and 3B correlates with EZH2 and this 3-marker epigenetic signature predicts outcome in glioblastomas. Exp Mol Pathol. 2016 Apr;100(2):312-20. doi: 10.1016/j.yexmp.2016.02.002. PubMed PMID: 26892683.

This study aims to analyze expression of EZH2 and DNA-methyltransferases (DNMT1, 3A and 3B) in astrocytic tumors and investigate their link as well as their correlation with survival, especially in GBMs. Expression of EZH2 and DNMTs (DNMT1, DNMT3A and DNMT3B) in different grades of astrocytomas (n=93) was assessed by qRT-PCR and immunohistochemistry. GBM-U87MG cell line was used for functional studies. Strong immunopositivity (LI≥25%) for EZH2, DNMT1 and DNMT3B was detected in 52%, 56% and 64% cases of GBMs respectively, which was significantly higher as compared to Grade II/III cases. Similarly, their median fold change of mRNA expression was also significantly higher in GBMs. There was also a significant positive correlation between DNMT1/DNMT3B and EZH2 mRNA and protein expression, which was in concordance with TCGA data set. Inhibition of DNMTs in cell line by Azacytidine resulted in down-regulation of EZH2, while knock-down of EZH2 by siRNA was not associated with any significant alteration of DNMTs, indicating that EZH2 expression in GBMs is possibly regulated by DNMTs, but not the reverse. Strong immunopositivity for EZH2, DNMT1 and DNMT3B were individually associated with significantly shorter survival and showed no correlation with IDH1 mutation status. In addition, the combination of these 3 markers represented an independent prognostic signature with cases having weak/negative expression of all 3 markers being associated with best prognosis. For the first time, the present study describes an epigenetic prognostic signature in GBMs based on immunohistochemical expression of EZH2, DNMT1 and 3B which can be used easily in routine neuropathology practice.

DOI: 10.1016/j.yexmp.2016.02.002
PMID: 26892683 [PubMed - indexed for MEDLINE]

92: Ragesh R, Ray A, Mian A, Vyas S, Sharma SK. Cavitary Lung Lesions in a Difficult-To-Treat Asthma Patient. J Assoc Physicians India. 2016 Apr;64(4):73-76. PubMed PMID: 27734646.

We describe an interesting case of severe asthma who was not showing satisfactory response to standard treatment. Investigations revealed him to be suffering from allergic bronchopulmonary aspergillosis (ABPA). After starting systemic steroids he showed marked improvement initially only to have recurrent symptoms within a year. He was investigated further and found to have chronic pulmonary aspergillosis in the form of chronic cavitary pulmonary aspergillosis (CCPA) and aspergilloma as also the presence of selective IgA deficiency.

PMID: 27734646 [PubMed - in process]

93: Rajeshwari M, Sharma MC, Kakkar A, Nambirajan A, Suri V, Sarkar C, Singh M, Saran RK, Gupta RK. Evaluation of chromosome 1q gain in intracranial ependymomas. J Neurooncol. 2016 Apr;127(2):271-8. doi: 10.1007/s11060-015-2047-z. PubMed PMID: 26725097.

Ependymomas are relatively uncommon gliomas with poor prognosis despite recent advances in neurooncology. Molecular pathogenesis of ependymomas is not extensively studied. Lack of correlation of histological grade with patient outcome has directed attention towards identification of molecular alterations as novel prognostic markers. Recently, 1q gain has emerged as a potential prognostic marker, associated with decreased survival, especially in posterior fossa, high grade tumors. Cases of intracranial ependymomas were retrieved. Tumors were graded using objective criteria to supplement WHO grading. Fluorescence in situ hybridization for 1q gain was performed on formalin-fixed paraffin embedded sections. Eighty-one intracranial ependymomas were analyzed. Pediatric (76%) and infratentorial (70%) ependymomas constituted the majority. 1q gain was seen in 27 cases (33%), was equally frequent in children (34%) and adults (32%), supratentorial (37%) and infratentorial (32%) location, grade II (33%) and III (25%) tumors. Recurrence was noted in 24 cases and death in 7 cases with 5-year progression-free and overall-survival rates of 37% and 80%, respectively. Grade II tumors had a better survival than grade III tumors; histopathological grade was the only prognostically significant marker. 1q gain had no prognostic significance. 1q gain is frequent in ependymomas in Indian patients, seen across all ages, sites and grades, and thus is likely an early event in pathogenesis. The prognostic value of 1q gain, remains uncertain, and multicentric pooling of data is required. A histopathological grading system using objective criteria correlates well with patient outcome and can serve as an economical option for prognostication of ependymomas.

DOI: 10.1007/s11060-015-2047-z
PMID: 26725097 [PubMed - in process]

94: Ramachandran VG, Das S, Roy P, Hada V, Mogha NS. Chikungunya: a reemerging infection spreading during 2010 dengue fever outbreak in National Capital Region of India. Virusdisease. 2016 Jun;27(2):183-6. doi: 10.1007/s13337-016-0314-z. PubMed PMID: 27366770; PubMed Central PMCID: PMC4909001.

Chikungunya fever is an important reemerging arbovirus illness, which is transmitted by the same vector as of dengue virus. Many cases of concurrent infections with multiple dengue virus serotypes have been reported in many countries. Also, concurrent infection with Chikungunya virus and dengue virus has been reported in the past in Delhi. Therefore, this study was done to detect Chikungunya IgM antibodies in suspected dengue fever patients. In this study, 1666 serum samples suspected of dengue fever and collected during the outbreak period (August 2010-December 2010) were tested for dengue IgM antibodies, of which 736 tested negative. Of the 736 dengue IgM negative sera, 666 were tested for Chikungunya IgM antibodies. The demographic profile and essential laboratory investigations were recorded. Chikungunya IgM was detected in 9.91 % of the patients. During the post-monsoon period though dengue dominated in numbers, the number of Chikungunya fever cases increased gradually followed by an abrupt decrease with the onset of winter. The Chikungunya IgM positive patients were suffering from fever of more than 5 days duration and had thrombocytopenia. Due to similarity in clinical features and vector transmitting dengue and Chikungunya virus, continuous surveillance of both dengue fever and Chikungunya fever is desirable for better management and epidemiological assessment.

DOI: 10.1007/s13337-016-0314-z
PMCID: PMC4909001 [Available on 2017-06-01]
PMID: 27366770 [PubMed]

95: Rani N, Bharti S, Bhatia J, Nag TC, Ray R, Arya DS. Chrysin, a PPAR-γ agonist improves myocardial injury in diabetic rats through inhibiting AGE-RAGE mediated oxidative stress and inflammation. Chem Biol Interact. 2016 Apr 25;250:59-67. doi: 10.1016/j.cbi.2016.03.015. PubMed PMID: 26972669.

AGE-RAGE interaction mediated oxidative stress and inflammation is the key mechanism involved in the pathogenesis of cardiovascular disease in diabetes. Inhibition of AGE-RAGE axis by several PPAR-γ agonists has shown positive results in ameliorating cardio-metabolic disease conditions. Chrysin, a natural flavonoid has shown to possess PPAR-γ agonist activity along with antioxidant and anti-inflammatory effect. Therefore, the present study was designed to evaluate the effect of chrysin in isoproterenol-induced myocardial injury in diabetic rats. In male albino Wistar rats, diabetes was induced by single injection of streptozotocin (70 mg/kg, i.p.). After confirmation of the diabetes, rats were treated with vehicle (1.5 mL/kg, p.o.), chrysin (60 mg/kg, p.o.) or PPAR-γ antagonist GW9662 (1 mg/kg, i.p.) for 28 days. Simultaneously, on 27th and 28th day myocardial injury was induced by isoproterenol (85 mg/kg, s.c.). Chrysin significantly ameliorated cardiac dysfunction as reflected by improved MAP, ±LVdP/dtmax and LVEDP in diabetic rats. This improvement was associated with increased PPAR-γ expression and reduced RAGE expression in diabetic rats. Chrysin significantly decreased inflammation through inhibiting NF-κBp65/IKK-β expression and TNF-α level. Additionally, chrysin significantly reduced apoptosis as indicated by augmented Bcl-2 expression and decreased Bax and caspase-3 expressions. Furthermore, chrysin inhibited nitro-oxidative stress by normalizing the alteration in 8-OHdG, GSH, TBARS, NO and CAT levels and Nox4, MnSOD, eNOS and NT expressions. Co-administration of GW9662 significantly blunted the chrysin mediated cardioprotective effect as there was increase in oxidative stress, inflammation and apoptosis markers. Chrysin significantly ameliorated isoproterenol-induced myocardial injury in diabetic rats via PPAR-γ activation and inhibition of AGE-RAGE mediated oxidative stress and inflammation.

DOI: 10.1016/j.cbi.2016.03.015
PMID: 26972669 [PubMed - indexed for MEDLINE]

96: S S, Midha S, Hasan A, Dhingra R, Garg PK. Long-term pain relief with optimized medical including antioxidants and step-up interventional therapy in patients with chronic pancreatitis. J Gastroenterol Hepatol. 2016 Apr 7. doi: 10.1111/jgh.13410. [Epub ahead of print] PubMed PMID: 27061119.

BACKGROUND AND AIM: Abdominal pain is difficult to treat in patients with chronic pancreatitis (CP). Medical therapy including antioxidants has been shown to relieve pain of CP in the short-term. Our aim was to study the long-term results of optimized medical and interventional therapy for pain relief in patients with CP with a step-up approach.
METHODS: All consecutive patients with CP were included prospectively in the study. They were treated medically with a well-balanced diet, pancreatic enzymes, and antioxidants (9000 IU beta-carotene, 0.54 g vitamin C, 270 IU vitamin E, 600 ug organic selenium, and 2 g methionine). Endoscopic therapy and/or surgery were offered if medical therapy failed. Pain relief was the primary outcome measure.
RESULTS: A total of 313 patients (mean age 26.16±12.17; 244 males) with CP were included; 288 (92%) patients had abdominal pain. The etiology of CP was idiopathic in 224 (71.6%) and alcohol in 82 (26.2%). At 1-year follow-up, significant pain relief was achieved in 84.7% of patients: 52.1% with medical therapy, 16.7% with endoscopic therapy, 7.6% with surgery, and 8.3% spontaneously. The mean pain score decreased from 6.36±1.92 to 1.62±2.10 ($p<0.001$). Of the 288 patients, 261, 218, 112 and 51 patients were followed up for 3, 5, 10 and 15 years respectively; 54.0%, 57.3%, 60.7% and 68.8% of them became pain free at those follow-up periods.
CONCLUSION: Significant pain relief is achieved in the majority of patients with optimized medical and interventional treatment.

DOI: 10.1111/jgh.13410
PMID: 27061119 [PubMed - as supplied by publisher]

97: Saha S, Saini S, Makharia GK, Datta Gupta S, Goswami R. Prevalence of coeliac disease in idiopathic hypoparathyroidism and effect of gluten-free diet on calcaemic control. Clin Endocrinol (Oxf). 2016 Apr;84(4):578-86. doi: 10.1111/cen.12850. PubMed PMID: 26147910.

BACKGROUND: Patients with idiopathic hypoparathyroidism (IH) require variable doses of calcium and 1-α-(OH)D. The reasons for such variability are not clear. As autoimmune mechanisms may play a role in IH, there is a possibility of coexistent coeliac disease with calcium/vitamin D malabsorption.
OBJECTIVE: We assessed the prevalence of coeliac disease and antitissue transglutaminase autoantibodies (anti-tTGAbs) in IH and analysed the effect of a gluten-free diet on calcaemic control.
METHOD: A total of 171 patients with IH and 126 healthy controls were screened for anti-tTGAb. IH patients with anti-tTGAb >20 RU/ml underwent duodenoscopy and intestinal biopsy; those with biopsy-proven coeliac disease were followed up on a gluten-free diet.
RESULTS: Eleven of 171 (6·4%) patients with IH and seven of 126 (5·6%) controls had anti-tTGAb (P = 0·81). There was no difference in the clinical and biochemical parameters at diagnosis and during long-term follow-up of 7·2 ± 4·8 year (mean serum total calcium = 1·88 ± 0·16 vs 1·82 ± 0·36 mmol/l, P = 0·52; phosphorus = 1·81 ± 0·17 vs 1·87 ± 0·36 mmol/l, P = 0·53) in IH patients with and without anti-tTGAb. Although CaSRAb positivity was comparable in the two groups, IH patients with anti-tTGAb had higher TPOAb positivity (45·5% vs 12·8%, P = 0·02). Coeliac disease was diagnosed in only 2/9 patients with IH on biopsy, both of whom showed improved calcaemic control with a gluten-free diet.
CONCLUSION: The prevalence of coeliac autoimmunity (6·4%) and coeliac disease (1·2%) in patients with IH seems to be similar to that in the general population. Notwithstanding this modest prevalence, it is important to be aware of the potential occurrence of coeliac disease with IH and the beneficial effect of a gluten-free diet on calcium control.

DOI: 10.1111/cen.12850
PMID: 26147910 [PubMed - in process]

98: Sapkota BR, Hopkins R, Bjonnes A, Ralhan S, Wander GS, Mehra NK, Singh JR, Blackett PR, Saxena R, Sanghera DK. Genome-wide association study of 25(OH) Vitamin D concentrations in Punjabi Sikhs: Results of the Asian Indian diabetic heart study. J Steroid Biochem Mol Biol. 2016 Apr;158:149-56. doi: 10.1016/j.jsbmb.2015.12.014. PubMed PMID: 26704534; PubMed Central PMCID: PMC4769937.

Vitamin D deficiency is implicated in multiple disease conditions and accumulating evidence supports that the variation in serum vitamin D (25(OH)D) levels, including deficiency, is under strong genetic control. However, the underlying genetic mechanism associated with vitamin 25(OH)D concentrations is poorly understood. We earlier reported a very high prevalence of vitamin D deficiency associated with an increased risk for type 2 diabetes and obesity in a Punjabi Sikh diabetic cohort as part of the Asian Indian diabetic heart study (AIDHS). Here we have performed the first genome-wide association study (GWAS) of serum 25(OH)D on 3538 individuals from this Punjabi Sikh population. Our discovery GWAS comprised of 1387 subjects followed by validation of 24 putative SNPs (P<10(-4)) using an independent replication sample (n=2151) from the same population by direct genotyping. A novel locus at chromosome 20p11.21 represented by rs2207173 with minor allele frequency (MAF) 0.29, [β=-0.13, p=4.47×10(-9)] between FOXA2 and SSTR4 was identified to be associated with 25(OH)D levels. Another suggestive association signal at rs11586313 (MAF 0.54) [β=0.90; p=1.36×10(-6)] was found within the regulatory region of the IVL gene on

chromosome 1q21.3. Additionally, our study replicated 3 of 5 known GWAS genes associated with 25(OH)D concentrations including GC (p=0.007) and CYP2R1 (p=0.019) reported in Europeans and the DAB1 (p=0.003), reported in Hispanics. Identification of novel association signals in biologically plausible regions with 25(OH)D metabolism will provide new molecular insights on genetic drivers of vitamin D status and its implications in health disparities.

DOI: 10.1016/j.jsbmb.2015.12.014
PMCID: PMC4769937 [Available on 2017-04-01]
PMID: 26704534 [PubMed - indexed for MEDLINE]

99: Shalimar, Kumar A, Kedia S, Sharma H, Gamanagatti SR, Gulati GS, Nayak B, Thakur B, Acharya SK. Hepatic venous outflow tract obstruction: treatment outcomes and development of a new prognostic score. Aliment Pharmacol Ther. 2016 Jun;43(11):1154-67. doi: 10.1111/apt.13604. PubMed PMID: 27060876.

BACKGROUND: Results of endovascular interventions in hepatic venous outflow tract obstruction (HVOTO) have been reported from limited studies. Treatment outcomes and prognostic scores need further validation.
AIM: To evaluate treatment outcomes and prognostic scores for hepatic venous outflow tract obstruction in an Indian population.
METHODS: Consecutive patients with hepatic venous outflow tract obstruction diagnosed at a tertiary centre were included. Technical success and clinical response after endovascular interventional therapy were documented. Predictors of survival were assessed with Cox-proportional model. A new score was derived from the factors significant on multivariate analysis and compared with Child-Turcotte-Pugh, model for end-stage liver disease (MELD), Rotterdam prognostic index (PI) and Budd-Chiari syndrome-transjugular intrahepatic portosystemic shunt (BCS-TIPSS) PI.
RESULTS: Three hundred and thirty-four patients (56.6% males), median age 24 (3-62) years were included. Hepatic vein was the commonest site of block-isolated hepatic vonous block in 48%, combined hepatic venous-inferior vena cava block in 46%. Endovascular interventional therapy was performed in 233/334 (70%) with 90% technical success. Clinical response was complete in 166 (71.2%), partial in 58 (24.9%) and no response in nine (3.9%). Majority of cases with HV block did not require TIPSS and could be treated with angioplasty (with/without stenting). On Cox-proportional multivariate analysis, Child class C and response to intervention were independent predictors of outcome and used to derive the All India Institute of Medical Sciences (AIIMS) hepatic venous outflow tract obstruction score. The 5-year survival was 92% (95% CI, 81-97%) for score ≤3, 79% (95%CI, 63-88%) for score >3 and ≤4, and 39% (95% CI, 21-57%) for score >4. The performance of AIIMS hepatic venous outflow obstruction score was superior to other prognostic indices.
CONCLUSIONS: Advanced Child class and no response to intervention are associated with poor outcomes. The All India Institute of Medical Sciences hepatic venous outflow tract obstruction score predicts survival better than other prognostic scores.

DOI: 10.1111/apt.13604
PMID: 27060876 [PubMed - in process]

100: Shalimar, Kumar D, Vadiraja PK, Nayak B, Thakur B, Das P, Datta Gupta S, Panda SK, Acharya SK. Acute on chronic liver failure because of acute hepatic insults: Etiologies, course, extrahepatic organ failure and predictors of mortality. J Gastroenterol Hepatol. 2016 Apr;31(4):856-64. doi: 10.1111/jgh.13213. PubMed PMID: 26519215.

BACKGROUND AND AIM: Acute on chronic liver failure (ACLF) because of precipitating factors (variceal bleed/infections) identifies cirrhotics at risk for high short-term mortality. Information on ACLF because of acute hepatic

insults is lacking. The aim of the study was to evaluate acute hepatic insults in ACLF and their effect on the course and outcome.
METHODS: In a prospective study, 213 consecutive patients of ACLF because of acute hepatic insults were included. Etiology of acute hepatic insult, frequency of silent, and overt chronic liver disease (CLD), organ failure (OF), and outcomes were assessed. Prognostic models such as model for endstage liver disease (MELD), acute physiology and chronic health evaluation (APACHE II), and chronic liver failure-sequential organ failure (CLIF-SOFA) were evaluated.
RESULTS: Etiologies of acute hepatic insult were hepatitis virus(es)- 81 (38%; HBV-42, HEV-39), continuous alcohol consumption-77 (33.3%), antituberculosis drugs-11 (5.2%), autoimmune hepatitis flare-5(2.3%), cryptogenic-44 (20.7%). The common causes of CLD were alcohol (n = 85/40%), HBV(n = 52/24%), and cryptogenic(n = 50/20%). The MELD, APACHE II, and CLIF-SOFA scores were similar among silent and overt CLD and did not influence outcome. Predominant etiologies of ACLF were hepatitis virus(es) reactivation or superinfection in silent CLD(52/112, 46.4%) and alcohol among overt CLD(43/101, 43%). Independent predictors of mortality included hepatic-encephalopathy (early, HR: 4.01; advanced, HR: 6.10), serum creatinine ≥1.5 mg/dl (HR: 4.53), CLIF-SOFA ≥8(HR: 1.69), and etiology of acute hepatic insult (alcohol, HR: 4.08; cryptogenic, HR: 3.18). HEV-ACLF had lower mortality (12.8% vs. 33-54% in other etiologies;P < 0.001). OF was major determinant of mortality. With increasing number of OF, mortality increased linearly(P = 0.001).
CONCLUSIONS: Hepatitis virus(es) and continuous alcohol consumption are important causes of ACLF caused by acute hepatic insults. HEV-ACLF has lower mortality. OF is an important prognostic predictor.

DOI: 10.1111/jgh.13213
PMID: 26519215 [PubMed - in process]

101: Sharma R, Singhal D, Shashni A, Agarwal E, Wadhwani M, Dada T. Comparison of Eye Drop Instillation Before and After Use of Drop Application Strips in Glaucoma Patients on Chronic Topical Therapy. J Glaucoma. 2016 Apr;25(4):e438-40. doi: 10.1097/IJG.0000000000000342. PubMed PMID: 26550965.

PURPOSE: To evaluate the impact of using drop application strips on eye drop instillation in glaucoma patients on chronic topical ocular hypotensive therapy.
METHODS: A total of 72 patients with primary open-angle glaucoma with an uncorrected visual acuity of 3/60 or more, self-administering topical antiglaucoma medication for >1 year were evaluated. One eye of each patient was included in the study. Patients were instructed to instill 0.5% carboxymethyl cellulose drop in 1 eye. They were then instructed to instill the same drop using the drop application strips.
RESULTS: Mean age of the patients included in the study was 50.39 ± 12.04 years. Before assistance of drop application strips, 35 (48.61%) patients placed the drop into the eye without any contact of the dropper nozzle, and, after application of the drop application strips, 66 (91.67%) patients placed the drop in the eye without any contact (P=0.025). The number of patients putting the first drop of drug into the eye without spilling over the adenexae increased from 30 (41.67%) to 45 (62.5%) after application of the strip (P<0.001). The mean number of drops instilled to get 1 drop into the eye decreased from 2 ± 0.95 to 1.56 ± 0.78 when the drop application strip was used (P<0.001).
CONCLUSIONS: Use of a drop application strip causes a significant decrease in contact of the eye drop bottle nozzle with the eyeball and eyelid, decreases the number of drops instilled to get 1 drop into the eye, and is associated with an overall improvement in eye drop instillation.

DOI: 10.1097/IJG.0000000000000342
PMID: 26550965 [PubMed - indexed for MEDLINE]

102: Sharma V, Gunjan D, Chhabra P, Sharma R, Rana SS, Bhasin DK. Gastrointestinal bleeding in the tropics: Look for the hookworm. Trop Doct. 2017 Jan;47(1):48-51. PubMed PMID: 27075012.

Hookworms are recognised as a cause of iron-deficiency anaemia in endemic areas. They are, however, often not considered in the differential diagnosis of overt gastrointestinal bleeding. We report the endoscopic diagnosis of hookworms as the cause of gastrointestinal bleeding in three patients, two of whom had frank haemorrhage with one presenting in hypovolemic shock. Hookworm infestation is an important treatable cause of gastrointestinal bleeding in tropical countries.

DOI: 10.1177/0049475516640192
PMID: 27075012 [PubMed - in process]

103: Sharma V, Purkait S, Takkar S, Malgulwar PB, Kumar A, Pathak P, Suri V, Sharma MC, Suri A, Kale SS, Kulshreshtha R, Sarkar C. Analysis of EZH2: micro-RNA network in low and high grade astrocytic tumors. Brain Tumor Pathol. 2016 Apr;33(2):117-28. doi: 10.1007/s10014-015-0245-1. PubMed PMID: 26746204.

Enhancer of Zeste homologue2 (EZH2) is an epigenetic regulator that functions as oncogene in astrocytic tumors, however, EZH2 regulation remains little studied. In this study, we measured EZH2 levels in low (Gr-II,DA) and high grade (Gr-IV,GBM) astrocytic tumors and found significant increased EZH2 transcript level with grade(median DA-8.5, GBM-28.9).However, a different trend was reflected in protein levels, with GBMs showing high EZH2 LI(median-26.5) compared to DA (median 0.3). This difference in correlation of EZH2 protein and RNA levels suggested post-transcriptional regulation of EZH2, likely mediated by miRNAs. We selected eleven miRNAs that strongly predicted to target EZH2 and measured their expression. Three miRNAs (miR-26a-5p,miR27a-3p and miR-498) showed significant correlation with EZH2 protein, suggesting them as regulators of EZH2, however miR-26a-5p levels decreased with grade. ChIP analyses revealed H3K27me3 modifications in miR-26a promoter suggesting feedback loop between EZH2 and miR26a. We further measured six downstream miRNA targets of EZH2 and found significant downregulation of four (miR-181a/b and 200b/c) in GBM. Interestingly, EZH2 associated miRNAs were predicted to target 25 genes in glioma-pathway, suggesting their role in tumor formation or progression. Collectively, our work suggests EZH2 and its miRNA interactors may serve as promising biomarkers for progression of astrocytic tumors and may offer novel therapeutic strategies.

DOI: 10.1007/s10014-015-0245-1
PMID: 26746204 [PubMed - in process]

104: Shi L, Dorbala S, Paez D, Shaw LJ, Zukotynski KA, Pascual TN, Karthikeyan G, Vitola JV, Better N, Bokhari N, Rehani MM, Kashyap R, Dondi M, Mercuri M, Einstein AJ; INCAPS Investigators Group.. Gender Differences in Radiation Dose From Nuclear Cardiology Studies Across the World: Findings From the INCAPS Registry. JACC Cardiovasc Imaging. 2016 Apr;9(4):376-84. doi: 10.1016/j.jcmg.2016.01.001. PubMed PMID: 27056156; PubMed Central PMCID: PMC4826718.

OBJECTIVES: The aim of this study was to investigate gender-based differences in nuclear cardiology practice globally, with a particular focus on laboratory volume, radiation dose, protocols, and best practices.
BACKGROUND: It is unclear whether gender-based differences exist in radiation exposure for nuclear cardiology procedures.
METHODS: In a large, multicenter, observational, cross-sectional study encompassing 7,911 patients in 65 countries, radiation effective dose was estimated for each examination. Patient-level best practices relating to radiation exposure were compared between genders. Analysis of covariance was used to determine any difference in radiation exposure according to gender, region, and the interaction between gender and region. Linear, logistic, and hierarchical regression models were developed to evaluate gender-based differences in

radiation exposure and laboratory adherence to best practices. The study also included the United Nations Gender Inequality Index and Human Development Index as covariates in multivariable models.

RESULTS: The proportion of myocardial perfusion imaging studies performed in women varied among countries; however, there was no significant correlation with the Gender Inequality Index. Globally, mean effective dose for nuclear cardiology procedures was only slightly lower in women (9.6 ± 4.5 mSv) than in men (10.3 ± 4.5 mSv; $p < 0.001$), with a difference of only 0.3 mSv in a multivariable model adjusting for patients' age and weight. Stress-only imaging was performed more frequently in women (12.5% vs. 8.4%; $p < 0.001$); however, camera-based dose reduction strategies were used less frequently in women (58.6% vs. 65.5%; $p < 0.001$).
CONCLUSIONS: Despite significant worldwide variation in best practice use and radiation doses from nuclear cardiology procedures, only small differences were observed between genders worldwide. Regional variations noted in myocardial perfusion imaging use and radiation dose offer potential opportunities to address gender-related differences in delivery of nuclear cardiology care.

DOI: 10.1016/j.jcmg.2016.01.001
PMCID: PMC4826718 [Available on 2017-04-01]
PMID: 27056156 [PubMed - in process]

105: Shukla R, Gudlavalleti MV, Bandyopadhyay S, Anchala R, Gudlavalleti AS, Jotheeswaran AT, Ramachandra SS, Singh V, Vashist P, Allagh K, Ballabh HP, Gilbert CE. Perception of care and barriers to treatment in individuals with diabetic retinopathy in India: 11-city 9-state study. Indian J Endocrinol Metab. 2016 Apr;20(Suppl 1):S33-41. doi: 10.4103/2230-8210.179772. PubMed PMID: 27144135; PubMed Central PMCID: PMC4847448.

BACKGROUND: Diabetic retinopathy is a leading cause of visual impairment. Low awareness about the disease and inequitable distribution of care are major challenges in India.
OBJECTIVES: Assess perception of care and challenges faced in availing care among diabetics.
MATERIALS AND METHODS: The cross-sectional, hospital based survey was conducted in eleven cities. In each city, public and private providers of eye-care were identified. Both multispecialty and standalone facilities were included. Specially designed semi-open ended questionnaires were administered to the clients.

RESULTS: 376 diabetics were interviewed in the eye clinics, of whom 62.8% (236) were selected from facilities in cities with a population of 7 million or more. The mean duration of known diabetes was 11.1 (±7.7) years. Half the respondents understood the meaning of adequate glycemic control and 45% reported that they had visual loss when they first presented to an eye facility. Facilities in smaller cities and those with higher educational status were found to be statistically significant predictors of self-reported good/adequate control of diabetes. The correct awareness of glycemic control was significantly high among attending privately-funded facilities and higher educational status. Self-monitoring of glycemic status at home was significantly associated with respondents from larger cities, privately-funded facilities, those who were better educated and reported longer duration of diabetes. Duration of diabetes (41%), poor glycemic control (39.4%) and age (20.7%) were identified as the leading causes of DR. The commonest challenges faced were lifestyle/behavior related.
CONCLUSIONS: The findings have significant implications for the organization of diabetes services in India.

DOI: 10.4103/2230-8210.179772
PMCID: PMC4847448

PMID: 27144135 [PubMed]

106: Singh A, Ashar J, Sharma P, Saxena R, Menon V. A prospective evaluation of retroequatorial recession of horizontal rectus muscles and Hertle-Dell'Osso tenotomy procedure in patients with infantile nystagmus with no definite null position. J AAPOS. 2016 Apr;20(2):96-9. doi: 10.1016/j.jaapos.2015.10.021. PubMed PMID: 27079587.

PURPOSE: To compare results of retroequatorial recession of horizontal rectus muscles and Hertle-Dell'Osso tenotomy procedure in patients with infantile nystagmus with null in primary position.
METHODS: In this prospective study, 10 subjects ≥5 years of age with infantile nystagmus with null in primary position were randomly assigned to two groups: group 1 underwent a large retroequatorial recession of the four horizontal rectus muscles; group 2, simple tenotomy and resuturing (Hertle-Dell'Osso procedure) of the four muscles. Patients were evaluated using Snellen and logMAR visual acuity charts, contrast sensitivity testing, color vision testing, stereopsis testing (TNO), and electronystagmography (ENG) for nystagmus waveforms, frequency, amplitude, and intensity.
RESULTS: Group 1 patients showed a trend toward 1-line improvement in their visual acuity for distance on the logMAR and ETDRS charts (P = 0.32); there was no improvement in group 2 patients. Contrast sensitivity improved significantly in both groups (P = 0.03), as did stereopsis (P = 0.02 [group 1], P = 0.04 [group 2]). The amplitude and intensity of nystagmus showed a tendancy to decrease in both the groups in all gazes, although the frequency showed no change in either group. Intergroup variability on all the parameters was not statistically significant.
CONCLUSIONS: Both retroequatorial recession of horizontal recti and the Hertle-Dell'Osso procedure showed a trend toward reducing ENG amplitude and improved contrast sensitivity and stereopsis in infantile nystagmus with null in primary position.

DOI: 10.1016/j.jaapos.2015.10.021
PMID: 27079587 [PubMed - indexed for MEDLINE]

107: Singh L, Madan R, Benson R, Rath GK. Primary Non-Hodgkins Lymphoma of Uterine Cervix: A Case Report of Two Patients. J Obstet Gynaecol India. 2016 Apr;66(2):125-7. doi: 10.1007/s13224-014-0647-8. PubMed PMID: 27046968; PubMed Central PMCID: PMC4818829.

108: Singh PM, Borle A, Shah D, Sinha A, Makkar JK, Trikha A, Goudra BG. Optimizing Prophylactic CPAP in Patients Without Obstructive Sleep Apnoea for High-Risk Abdominal Surgeries: A Meta-regression Analysis. Lung. 2016 Apr;194(2):201-17. doi: 10.1007/s00408-016-9855-6. PubMed PMID: 26896040.

INTRODUCTION: Prophylactic continuous positive airway pressure (CPAP) can prevent pulmonary adverse events following upper abdominal surgeries. The present meta-regression evaluates and quantifies the effect of degree/duration of (CPAP) on the incidence of postoperative pulmonary events.
METHODS: Medical databases were searched for randomized controlled trials involving adult patients, comparing the outcome in those receiving prophylactic postoperative CPAP versus no CPAP, undergoing high-risk abdominal surgeries. Our meta-analysis evaluated the relationship between the postoperative pulmonary complications and the use of CPAP. Furthermore, meta-regression was used to quantify the effect of cumulative duration and degree of CPAP on the measured outcomes.

RESULTS: Seventy-three potentially relevant studies were identified, of which 11 had appropriate data, allowing us to compare a total of 362 and 363 patients in CPAP and control groups, respectively. Qualitatively, Odds ratio for CPAP showed

protective effect for pneumonia [0.39 (0.19-0.78)], atelectasis [0.51 (0.32-0.80)] and pulmonary complications [0.37 (0.24-0.56)] with zero heterogeneity. For prevention of pulmonary complications, odds ratio was better for continuous than intermittent CPAP. Meta-regression demonstrated a positive correlation between the degree of CPAP and the incidence of pneumonia with a regression coefficient of +0.61 (95 % CI 0.02-1.21, P = 0.048, τ (2) = 0.078, r (2) = 7.87 %). Overall, adverse effects were similar with or without the use of CPAP.
CONCLUSIONS: Prophylactic postoperative use of continuous CPAP significantly reduces the incidence of postoperative pneumonia, atelectasis and pulmonary complications in patients undergoing high-risk abdominal surgeries. Quantitatively, increasing the CPAP levels does not necessarily enhance the protective effect against pneumonia. Instead, protective effect diminishes with increasing degree of CPAP.

DOI: 10.1007/s00408-016-9855-6
PMID: 26896040 [PubMed - in process]

109: Sinha G, Nayak B, Gupta S, Gupta V. Bilateral neovascular glaucoma in idiopathic retinal vasculitis, aneurysms, and neuroretinitis syndrome. Can J Ophthalmol. 2016 Apr;51(2):e43-5. doi: 10.1016/j.jcjo.2015.10.009. PubMed PMID: 27085273.

110: Sivanandan S, Agarwal R. Pharmacological Closure of Patent Ductus Arteriosus: Selecting the Agent and Route of Administration. Paediatr Drugs. 2016 Apr;18(2):123-38. doi: 10.1007/s40272-016-0165-5. Review. PubMed PMID: 26951240.

Opinions are divided regarding the management of a persistently patent ductus arteriosus (PDA). Some of the adverse effects associated with a large hemodynamically significant duct, including prolonged ventilation, pulmonary hemorrhage, bronchopulmonary dysplasia (BPD), necrotizing enterocolitis (NEC), intraventricular hemorrhage (IVH), and mortality, indicate that active management of infants with large ductal shunts may sometimes be necessary. Indomethacin and ibuprofen are the two US FDA-approved cyclooxygenase (COX) inhibitors used for the closure of a ductus in preterm babies. Both these drugs are effective in 70-80% of extremely low birthweight infants. Treatment with COX inhibitors may be associated with renal impairment, gastrointestinal hemorrhage, NEC, and spontaneous intestinal perforation when given concurrently with steroids, as well as changes in cerebrovascular auto-regulation. Ibuprofen appears to be a better choice for PDA closure, with a better side effect profile and efficacy that equals that of indomethacin. However, long-term outcome studies of ibuprofen are lacking, and prophylactic ibuprofen is ineffective in decreasing severe IVH. The choice of one drug over the other also depends on local availability of both drugs and the intravenous or enteral preparation. The oral preparation of ibuprofen appears as effective as the intravenous preparation. The use of paracetamol to close a hemodynamically significant PDA has increased in recent years. Paracetamol also decreases prostacyclin synthesis; however, unlike COX inhibitors, it does not have a peripheral vaso-constrictive effect and can be given to infants with contraindications to non-steroidal anti-inflammatory drugs. It appears to have similar efficacy based on limited data available from randomized trials. Until more data are available on efficacy, safety, and long-term outcomes, it cannot be recommended as the first choice.

DOI: 10.1007/s40272-016-0165-5
PMID: 26951240 [PubMed - indexed for MEDLINE]

111: Sodhi J, Satpathy S, Sharma DK, Lodha R, Kapil A, Wadhwa N, Gupta SK. Healthcare associated infections in Paediatric Intensive Care Unit of a tertiary care hospital in India: Hospital stay & extra costs. Indian J Med Res. 2016 Apr;143(4):502-6. doi: 10.4103/0971-5916.184306. PubMed PMID: 27377508; PubMed Central PMCID: PMC4928558.

Opinions are divided regarding the management of a persistently patent ductus

arteriosus (PDA). Some of the adverse effects associated with a large hemodynamically significant duct, including prolonged ventilation, pulmonary hemorrhage, bronchopulmonary dysplasia (BPD), necrotizing enterocolitis (NEC), intraventricular hemorrhage (IVH), and mortality, indicate that active management of infants with large ductal shunts may sometimes be necessary. Indomethacin and ibuprofen are the two US FDA-approved cyclooxygenase (COX) inhibitors used for the closure of a ductus in preterm babies. Both these drugs are effective in 70-80% of extremely low birthweight infants. Treatment with COX inhibitors may be associated with renal impairment, gastrointestinal hemorrhage, NEC, and spontaneous intestinal perforation when given concurrently with steroids, as well as changes in cerebrovascular auto-regulation. Ibuprofen appears to be a better choice for PDA closure, with a better side effect profile and efficacy that equals that of indomethacin. However, long-term outcome studies of ibuprofen are lacking, and prophylactic ibuprofen is ineffective in decreasing severe IVH. The choice of one drug over the other also depends on local availability of both drugs and the intravenous or enteral preparation. The oral preparation of ibuprofen appears as effective as the intravenous preparation. The use of paracetamol to close a hemodynamically significant PDA has increased in recent years. Paracetamol also decreases prostacyclin synthesis; however, unlike COX inhibitors, it does not have a peripheral vaso-constrictive effect and can be given to infants with contraindications to non-steroidal anti-inflammatory drugs. It appears to have similar efficacy based on limited data available from randomized trials. Until more data are available on efficacy, safety, and long-term outcomes, it cannot be recommended as the first choice.

DOI: 10.1007/s40272-016-0165-5
PMID: 26951240 [PubMed - indexed for MEDLINE]

112: Som A, Baidya DK, Maitra S, Gupta S. Branching of the radial artery in mid forearm: A rare anomaly. J Clin Anesth. 2016 Sep;33:164-5. doi: 10.1016/j.jclinane.2016.02.044. PubMed PMID: 27555155.

113: Som A, Baidya DK, Arora MK, Maitra S, Gupta S. Rett syndrome: a concern for the anesthesiologists. J Clin Anesth. 2016 Jun;31:247-8. doi: 10.1016/j.jclinane.2016.01.017. PubMed PMID: 27185720.

114: Somasundaram V, Soni S, Chopra A, Rai S, Mahapatra M, Kumar R, Pati H. Value of Quantitative assessment of Myeloid Nuclear Differentiation Antigen expression and other flow cytometric parameters in the diagnosis of Myelodysplastic syndrome. Int J Lab Hematol. 2016 Apr;38(2):141-50. doi: 10.1111/ijlh.12458. PubMed PMID: 26822549.

INTRODUCTION: The diagnosis of myelodysplastic syndrome (MDS) based on morphology is particularly difficult in low-grade MDS. Thus, the role of myeloid nuclear differentiation antigen (MNDA) and other flow cytometric (FCM) parameters in MDS was evaluated.
METHODS: Bone marrow aspirates (BMA) collected from 52 patients with unexplained persistent cytopenias were divided into three groups: (i) proven MDS (n = 12) based on morphology and/or cytogenetics; (ii) suspected MDS (n = 6), noncontributory morphology, and cytogenetics; and (iii) non-MDS (n = 34). Sixteen control BMA were studied. Cases were analyzed for MNDA expression (on granulocytes, blasts, monocytes, and lymphocytes) and for seven quantitative parameters: CD34(+) myeloblasts % in nucleated cells, CD34(+) B-cell progenitor% in CD34(+) cells, lymphocyte/myeloblast CD45 MFI ratio, granulocyte/lymphocyte SSC peak channel ratio and the proportion of CD34(+) myeloblasts expressing CD15, CD11b, and CD56. A score of 1 was given to each parameter beyond the cutoff, and score ≥3 was considered FCM positive.
RESULTS: MNDA expression on granulocytes and blasts was significantly lower in proven MDS and suspected MDS vs. non-MDS. Quantitative FCM parameters successfully distinguished MDS and suspected MDS from non-MDS.
CONCLUSION: MNDA expression is an independent marker for the evaluation of dyspoiesis and may be added to the standard panel for quantitative assessment by

FCM.

DOI: 10.1111/ijlh.12458
PMID: 26822549 [PubMed - in process]

115: Subramanian K, Kattimani S, Sarkar S, Rajkumar RP. Current adherence attitudes can reflect the course and outcome of bipolar disorder-type I. Asian J Psychiatr. 2016 Apr;20:11. doi: 10.1016/j.ajp.2016.01.007. PubMed PMID: 27025464.

116: Suchal K, Malik S, Gamad N, Malhotra RK, Goyal SN, Ojha S, Kumari S, Bhatia J, Arya DS. Mangiferin protect myocardial insults through modulation of MAPK/TGF-β pathways. Eur J Pharmacol. 2016 Apr 5;776:34-43. doi: 10.1016/j.ejphar.2016.02.055. PubMed PMID: 26921754.

Mangiferin, a xanthone glycoside isolated from leaves of Mangifera indica (Anacardiaceae) is known to modulate many biological targets in inflammation and oxidative stress. The present study was designed to investigate whether mangiferin exerts protection against myocardial ischemia-reperfusion (IR) injury and possible role of Mitogen Activated Protein Kinase (MAPKs) and Transforming Growth Factor-β (TGF-β) pathways in its cardioprotection. Male albino Wistar rats were treated with mangiferin (40 mg/kg, i.p.) for 15 days. At the end of the treatment protocol, rats were subjected to IR injury consisting of 45 min ischemia followed by 1h reperfusion. IR-control rats caused significant cardiac dysfunction, increased serum cardiac injury markers, lipid peroxidation and a significant decrease in tissue antioxidants as compared to sham group. Histopathological examination of IR rats revealed myocardial necrosis, edema and infiltration of inflammatory cells. However, pretreatment with mangiferin significantly restored myocardial oxidant-antioxidant status, maintained membrane integrity, and attenuated the levels of proinflammatory cytokines, pro-apoptotic proteins and TGF-β. Furthermore, mangiferin significantly reduced the phosphorylation of p38, and JNK and enhanced phosphorylation of ERK1/2. These results suggest that mangiferin protects against myocardial IR injury by modulating MAPK mediated inflammation and apoptosis.

DOI: 10.1016/j.ejphar.2016.02.055
PMID: 26921754 [PubMed - in process]

117: Sudhaman S, Muthane UB, Behari M, Govindappa ST, Juyal RC, Thelma BK. Evidence of mutations in RIC3 acetylcholine receptor chaperone as a novel cause of autosomal-dominant Parkinson's disease with non-motor phenotypes. J Med Genet. 2016 Aug;53(8):559-66. doi: 10.1136/jmedgenet-2015-103616. PubMed PMID: 27055476.

BACKGROUND: The known genetic determinants of Parkinson's disease (PD) do not explain all cases investigated to date. Contemporary sequencing technologies hold promise for enhanced causal variant discovery. We attempted to identify the putative causal variant in an Indian PD family by whole exome sequencing (WES). METHODS: WES data generated for two affected cousins from a 14-member PD family with some non-motor phenotypes were analysed. Variants prioritised were checked for segregation with disease by targeted sequencing. An independent PD cohort (n=280) was screened for additional mutations in the prioritised gene. Variants were functionally validated in PC12 cells differentiated into neurons. RESULTS: A heterozygous mutation c.169C>A, p.P57T in RIC3 acetylcholine receptor chaperone (11p15) segregated with disease in the family confirming an autosomal-dominant mode of inheritance. Another heterozygous mutation c.502G>C, p.V168L was detected in an unrelated PD case. Both mutations were absent in 144 healthy control and in 74 non-PD WES data available in-house and in 186 age and sex-matched controls screened by PCR sequencing. RIC3 is a known chaperone of neuronal nicotinic acetylcholine receptor subunit α-7 (CHRNA7). Dominant negative effect of RIC3 mutants in transfected PC12 cells was reflected by the reduced

levels of endogenous CHRNA7 in the membrane fractions in western blots and lower colocalisation profiles in confocal micrographs.
CONCLUSION: The novel demonstration of a chaperone-mediated receptor density alteration due to RIC3 mutants provides strong evidence for the role of cholinergic pathway for the first time in PD aetiology. This may also be insightful for some non-motor symptoms and personalised treatment.

DOI: 10.1136/jmedgenet-2015-103616
PMID: 27055476 [PubMed - in process]

118: Suresh CP, Saha A, Kaur M, Kumar R, Dubey NK, Basak T, Tanwar VS, Bhardwaj G, Sengupta S, Batra VV, Upadhyay AD. Differentially expressed urinary biomarkers in children with idiopathic nephrotic syndrome. Clin Exp Nephrol. 2016 Apr;20(2):273-83. doi: 10.1007/s10157-015-1162-7. PubMed PMID: 26351173.

BACKGROUND: We performed a discovery phase of urinary proteomic profile in children with idiopathic nephrotic syndrome and validated selected biomarkers.
METHODS: Urinary proteomic profile was performed using isobaric tags for relative and absolute quantitation labeling, coupled with liquid chromatography-matrix assisted laser desorption and ionization analysis. Validation of biomarkers apolipoprotein A1, alpha 2 macroglobulin, orosomucoid 2, retinol binding protein 4 and leucine-rich alpha 2-glycoprotein 1 was done by enzyme-linked immunosorbent assay.
RESULTS: Apolipoprotein A1 levels of <0.48 µg/mg of creatinine-differentiated steroid-resistant nephrotic syndrome (SRNS) from first episode nephrotic syndrome, area under curve (AUC) [0.99 (CI 0.9-1.0), 100 % sensitivity and 100 % specificity] and a value of <0.24 µg/mg of creatinine could differentiate SRNS from frequently relapsing nephrotic syndrome/steroid dependent nephrotic syndrome [AUC 0.99 (CI 0.9-1.0), 100 % sensitivity and 100 % specificity]. Alpha 2 macroglobulin could differentiate children with SRNS-focal segmental glomerulosclerosis (FSGS) from SRNS-minimal change disease (MCD) at values >3.3 µg/mg of creatinine [AUC 0.84 (CI 0.62-1.0), 90 % sensitivity and 85 % specificity]. Orosomucoid 2 >1.81 µg/mg of creatinine could distinguish SRNS-FSGS from SRNS-MCD [AUC 0.84 (CI 0.62-1.0), sensitivity 90 % and specificity 85.5 %]. RBP 4 value of >1.54 µg/mg of creatinine differentiated SRNS-FSGS from SRNS-MCD [AUC 0.87 (CI 0.68-1.0), sensitivity 90 % and specificity 85.7 %].
CONCLUSIONS: Lower level of apolipoprotein A1 in urine is suggestive of SRNS. Alpha 2 macroglobulin, retinol binding protein 4 and orosomucoid 2 are markers associated with FSGS, with alpha 2 macroglobulin being most predictive.

DOI: 10.1007/s10157-015-1162-7
PMID: 26351173 [PubMed - in process]

119: Suresh Malapure S, Das KJ, Kumar R. PET/Computed Tomography in Breast Cancer: Can It Aid in Developing a Personalized Treatment Design? PET Clin. 2016 Jul;11(3):297-303. doi: 10.1016/j.cpet.2016.02.006. Review. PubMed PMID: 27321033.

PET with fluorodeoxyglucose (FDG-PET)/computed tomography (CT) imaging has significantly improved the management of breast cancer. FDG, however, is not tumor-specific and various image interpretation pitfalls may occur due to false-positive and false-negative causes of FDG uptake. PET/CT imaging with more specific radiopharmaceuticals may provide useful information about the pathophysiology in such cases. In the present article, we reviewed the use of whole-body FDG-PET/CT and (18)F-16α-17β-Fluoroestradiol PET/CT imaging to determine if these can be used to develop personalized treatment design for the better management of breast cancer.

DOI: 10.1016/j.cpet.2016.02.006
PMID: 27321033 [PubMed - in process]

120: Takkar B, Azad S. Re: Bouheraoua et al.: Decreased corneal sensation and subbasal nerve density, and thinned corneal epithelium as a result of 360-degree laser retinopexy (Ophthalmology 2015;122:2095-102). Ophthalmology. 2016 Apr;123(4):e29. doi: 10.1016/j.ophtha.2015.10.052. PubMed PMID: 27012703.

121: Takkar B, Chandra P, Kumar V, Agrawal R. A case of iridofundal coloboma with persistent fetal vasculature and lens subluxation. J AAPOS. 2016 Apr;20(2):180-2. doi: 10.1016/j.jaapos.2015.12.004. PubMed PMID: 27009512.

Persistent fetal vasculature and fundal coloboma are important congenital vitreoretinal disorders that can severely affect a child's visual acuity. Each disorder has its own set of potential complications. We discuss the case of a visually challenged child who presented with a combination of both these disorders, along with inferior lens subluxation.

DOI: 10.1016/j.jaapos.2015.12.004
PMID: 27009512 [PubMed - indexed for MEDLINE]

122: Thakar A, Hota A, Bhalla AS, Gupta SD, Sarkar C, Kumar R. Overt and occult vidian canal involvement in juvenile angiofibroma and its possible impact on recurrence. Head Neck. 2016 Apr;38 Suppl 1:E421-5. doi: 10.1002/hed.24012. PubMed PMID: 25581140.

BACKGROUND: Postexcision residual disease in the vidian canal is speculated to contribute to recurrence in juvenile angiofibroma.
METHODS: We composed a prospective cohort of 16 consecutive patients with juvenile angiofibroma (stages IIA-IIIB). The presurgical vidian canal assessment was done by contrast-enhanced CT (1.2 mm collimation). At surgery after complete tumor excision, the vidian canal tissue was sampled for histology. Postexcision drilling of the vidian canal was done in 8 of 15 patients to remove microscopic residual disease, with a 24 to 48 month follow-up period.
RESULTS: Presurgical radiology indicated ipsilateral vidian canal enlargement (≥3 mm)/destruction in 13 of 16 patients. Radiologically occult involvement was documented only by histology in another 1 of 16 patients. Postexcision sampling of the vidian canal noted microscopic residual tumor in 3 of 15 patients. No recurrences were noted in 8 cases (0 of 8) with postexcision drilling of the vidian canal and 2 recurrences in 7 cases (2 of 7) with no drilling (p = .20).
CONCLUSION: Vidian canal involvement in juvenile angiofibroma is almost universal (14 of 16) and may be occult to CT evaluation. The site may harbor microscopic residual tumor after seemingly complete excision. Surgical attention toward it may reduce recurrences. © 2015 Wiley Periodicals, Inc. Head Neck 38: E421-425, 2016.

DOI: 10.1002/hed.24012
PMID: 25581140 [PubMed - in process]

123: Thirunavukkarasu B, Mridha AR, Yadav S, Kumar R, Gamanagatti S. Fine Needle Aspiration Cytology Diagnosis of an Urachal Adenocarcinoma. J Clin Diagn Res. 2016 Apr;10(4):ED10-2. doi: 10.7860/JCDR/2016/16115.7586. PubMed PMID: 27190817; PubMed Central PMCID: PMC4866115.

Urachal Carcinoma (UC) is a rare malignancy of urinary bladder. It is usually found in adults in advanced stages because the tumour often grows outside the bladder without producing clinical symptoms. Most of the cases are mucinous, intestinal or signet ring cell adenocarcinoma and the diagnosis is usually made

on biopsy. Radiographic images of this tumour may show characteristic features with a midline solid or cystic mass in the anterior wall of bladder associated with small calcification, which is considered as a pathognomonic sign for the diagnosis of UC. We report a case of UC in an adult, whose radiographic images suggested an urachal tumour and Fine Needle Aspiration (FNA) cytology revealed an adenocarcinoma. Laparoscopic partial cystectomy with umbilectomy and pelvic node dissection was done without further histopathological confirmation. Surgical intervention of UC on the basis of FNA diagnosis has not been reported in the literature.

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PMCID: PMC4866115
PMID: 27190817 [PubMed]

124: Titiyal JS, Kaur M, Falera R, Jose CP, Sharma N. Evaluation of Time to Donor Lenticule Apposition Using Intraoperative Optical Coherence Tomography in Descemet Stripping Automated Endothelial Keratoplasty. Cornea. 2016 Apr;35(4):477-81. doi: 10.1097/ICO.0000000000000757. PubMed PMID: 26807904.
PURPOSE: To evaluate the time to donor lenticule apposition in cases of Descemet stripping automated endothelial keratoplasty (DSAEK) using microscope-integrated intraoperative optical coherence tomography (iOCT).
METHODS: Thirty eyes of 27 patients planned to undergo Descemet stripping automated endothelial keratoplasty were enrolled in this prospective study. In group I (n = 10), continuous intracameral positive pressure was maintained for 8 minutes. In group II (n = 10) and group III (n = 10), external corneal massage was initiated simultaneously with positive intracameral air pressure. The external corneal massage was continued till complete resolution of interface fluid; the positive intracameral pressure was maintained for 8 minutes in group II and for 5 minutes in group III. The host-donor relationship was continuously monitored with the iOCT. The main outcome measure was time to complete donor lenticule apposition.
RESULTS: In group I, the interface fluid persisted after 8 minutes of positive intracameral pressure in all eyes (10/10); hence an external corneal massage was required to achieve optimal donor adherence. In groups II and III, all eyes (20/20) had complete resolution of the interface fluid at the end of 3 minutes. In 100% of the eyes (30/30), the grafts were attached after anterior chamber decompression as seen on the iOCT. In all cases, the donor lenticules were adhered in the postoperative period.
CONCLUSIONS: iOCT helps in understanding that the donor lenticule is well apposed within 1 to 3 minutes with the technique of simultaneous positive intracameral pressure and external corneal massage. This knowledge minimizes the waiting time for graft apposition and prevents prolonged intraocular pressure elevation.

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125: Tiwary M, Agarwal N, Dinda A, Yadav SC. Overexpression and purification of folded domain of prostate cancer related proteins MSMB and PSA. Mol Biol Rep. 2016 May;43(5):349-58. doi: 10.1007/s11033-016-3956-4. PubMed PMID: 27038170.

Overexpression of domains of a human protein using recombinant DNA technology has been challenging because individual domains intend to accumulate as non-soluble aggregate when expressed separately. Studies on identifying right sequences for a domain to be able to fold independently may help understand the folding pattern and underlying protein-engineering events to isolate the functional domains of a protein. In this report, individual domains of prostate cancer related biomarkers; MSMB and PSA were overexpressed in bacterial system and purified in their folded forms using affinity chromatography. The western blotting experiment using domain specific antibodies further confirmed these proteins. The designed nucleotide sequences domains were truncated using fold index software and folding were predicted by phyre2 and I-TASSER software. Other parameters were optimized for their overexpression and purification using Co-NTA affinity chromatography. Purified domains of each protein showed secondary structures such as α + β type for PSA, α/β and β type for the each domains of PSA and MSMB respectively. This

is the first report on producing PSA and MSMB individual domains in functional folded forms. This study may help produce the folded domain of many such proteins to be used for better diagnostic purpose.

DOI: 10.1007/s11033-016-3956-4
PMID: 27038170 [PubMed - in process]

126: Unnikrishnan AG, Kalra S, Tandon N. Diabetic retinopathy care in India: An endocrinology perspective. Indian J Endocrinol Metab. 2016 Apr;20(Suppl 1):S1-2. doi: 10.4103/2230-8210.179776. PubMed PMID: 27144130; PubMed Central PMCID: PMC4847443.

127: Vallonthaiel AG, Jain D, Madan K, Arava S. Pulmonary adenocarcinoma with signet ring features: Detailed cytomorphologic analysis. Diagn Cytopathol. 2016 Jul;44(7):607-11. doi: 10.1002/dc.23492. PubMed PMID: 27095297.

BACKGROUND: Signet ring cell feature in lung adenocarcinoma is no longer considered a distinct subtype, but as a cytologic change that may occur in association with multiple histological patterns. Cases with signet ring cells show a strong association with Anaplastic Lymphoma Kinase (ALK) gene fusions and solid pattern.
METHODS: The cytomorphological findings of pulmonary adenocarcinoma with signet ring features (PASRF) was studied. Cases of pulmonary adenocarcinoma which showed presence of signet ring cells either on cytology or histology were included in the study.
RESULTS: Out of 218 pulmonary adenocarcinomas diagnosed during the study period, 11 cases showed presence of signet ring cells (11/218). Out of the 11 cases, 7 had paired histology and cytology available, while the remaining 4 did not have a corresponding cytology sample. Majority of the cases (6/11) showed signet ring cells in more than 90% of the tumor area. All cases showed solid growth pattern. TTF-1 was positive in all the cases. Immunopositivity for ALK was seen in seven cases. The cytology smears showed single cells and clusters of signet ring cells, with either intracytoplasmic mucin vacuole and eccentric nucleus or histiocyte-like finely vacuolated cytoplasm with round nucleus and prominent nucleoli, the latter resembling alveolar macrophages.
CONCLUSION: PASRF is commonly associated with a solid histologic pattern. Cases with predominant histiocyte-like pattern may be misdiagnosed on cytology; hence a high index of suspicion is required for an accurate diagnosis. Diagn. Cytopathol. 2016;44:607-611. © 2016 Wiley Periodicals, Inc.

DOI: 10.1002/dc.23492
PMID: 27095297 [PubMed - in process]

128: Vallonthaiel AG, Kaur K, Jain D, Singh G, Tiwari D, Pramanik R, Singh P, Sharma MC. Ewing Sarcoma of Urinary Bladder Showing EWSR1 Rearrangement on FISH Analysis and Unique Response to Chemotherapy. Clin Genitourin Cancer. 2016 Apr;14(2):e183-6. doi: 10.1016/j.clgc.2015.11.001. PubMed PMID: 26684812.

129: Vashist A, Prithvi Raj D, Gupta UD, Bhat R, Tyagi JS. The α10 helix of DevR, the Mycobacterium tuberculosis dormancy response regulator, regulates its DNA binding and activity. FEBS J. 2016 Apr;283(7):1286-99. doi: 10.1111/febs.13664. PubMed PMID: 26799615.

130: Yadav R, Jain D, Mathur SR, Iyer VK. Cytomorphology of neuroendocrine tumours of the gallbladder. Cytopathology. 2016 Apr;27(2):97-102. doi: 10.1111/cyt.12239. PubMed PMID: 25689921.

OBJECTIVE: Gallbladder neuroendocrine tumours (GB-NETs) are rare and account for 0.5% of all NETs. GB-NETs have an aggressive behaviour, which depends on the

tumour grade. The cytomorphological spectrum of these tumours has never been described in detail. The present study evaluates the cytological features of GB-NETs and grades them according to the World Health Organization (WHO) classification. Furthermore, the expression of thyroid transcription factor-1 (TTF-1) has not been investigated previously in GB-NETs, although found in a subset of extrapulmonary NETs.
METHODS: Twenty cases of GB-NET among 875 gallbladder carcinomas diagnosed by ultrasound-guided fine needle aspiration cytology (FNAC) over a period of nearly 4 years were studied. The following parameters were evaluated: architectural pattern, nuclear chromatin, nucleoli, mitoses, necrosis, moulding, apoptosis and smudge cells. Cases were categorized into well-differentiated (grades 1 and 2), small cell carcinoma (SCC) (grade 3) and mixed adenoneuroendocrine carcinoma. Nuclear positivity for TTF-1 was considered as positive.
RESULTS: Morphologically, tumour cells were mainly arranged in rosettes in the well-differentiated category; sudden anisonucleosis and rare nuclear moulding with or without mitotic figures were other features. Eleven cases of SCC showed prominent nuclear moulding with frequent smudge cells, mitoses, apoptosis and necrosis. Three mixed adenoneuroendocrine carcinomas showed papillary fragments and an acinar arrangement of tumour cells. Four of the nine SCCs in which TTF-1 was evaluated on de-stained smears showed nuclear positivity. Histopathology was available in two SCCs and showed morphology similar to FNAC.
CONCLUSION: Cytology plays an important role in the diagnosis of GB-NETs for appropriate subtype characterization, which is necessary for the prognostication of these tumours. TTF-1 may not be used for the differentiation of gallbladder SCCs from pulmonary SCCs.

DOI: 10.1111/cyt.12239
PMID: 25689921 [PubMed - in process]

131: Yadav S, Dogra S. A Cutaneous Reaction to Microneedling for Postacne Scarring Caused by Nickel Hypersensitivity. Aesthet Surg J. 2016 Apr;36(4):NP168-70. doi: 10.1093/asj/sjv229. PubMed PMID: 26961992.