List of publications of AIIMS, New Delhi for the month of SEPTEMBER, 2015 [Source: www.pubmed.com].

1: Agarwal B, Gagnani S, Roychoudhury A, Bhutia O. Optimum use of platelet-rich fibrin: technical note. Br J Oral Maxillofac Surg. 2015 Sep;53(7):664-5. doi: 10.1016/j.bjoms.2015.04.016. Epub 2015 Jun 3. PubMed PMID: 26050132.

The interpretation of fluorodeoxyglucose (FDG) PET/computed tomography (CT) is often challenging for pelvic pathologies because of the physiologic bowel and urinary tract activity. Intense radiotracer activity in urinary tract interferes in image interpretation and leads to false-negative results in diagnosis and detection of local recurrence and regional lymph node metastases. It is imperative to minimize unnecessary urinary bladder activity to improve the diagnostic yield of PET/CT. All the techniques described in the literature have their pros and cons. This article discusses FDG PET/CT in evaluation of urinary bladder cancer, cervical cancer, and ovarian cancer.

2: Agarwal KK, Roy SG, Kumar R. Diuretic (18)F-Fluorodeoxyglucose PET/Computed Tomography in Evaluation of Genitourinary Malignancies. PET Clin. 2016 Jan;11(1):39-46. doi: 10.1016/j.cpet.2015.07.005. Epub 2015 Sep 5. Review. PubMed PMID: 26590442.

3: Agarwal P, Kaul B, Shukla G, Srivastava A, Singh MB, Goyal V, Behari M, Suri A, Gupta A, Garg A, Gaikwad S, Bal CS. Lateralizing value of unilateral relative ictal immobility in patients with refractory focal seizures - Looking beyond unilateral automatisms. Seizure. 2015 Dec;33:66-71. doi: 10.1016/j.seizure.2015.08.009. Epub 2015 Sep 10. PubMed PMID: 26584452.

PURPOSE: Ictal motor phenomena play a crucial role in the localization of seizure focus in the management of refractory focal epilepsy. While the importance of unilateral automatisms is well established, little attention is paid to the contralateral relatively immobile limb. In cases where automatisms mimic clonic or dystonic movements and in the absence of previously well-established signs, unilateral relative ictal immobility (RII) is potentially useful as a lateralizing sign. This study was carried out to examine the lateralizing value of this sign and to define its characteristics among patients of refractory focal epilepsy.
METHODS: VEEGs of 69 consecutive patients of refractory focal epilepsy who had undergone epilepsy surgery at our center over last four years were reviewed and analyzed for the presence of RII. Unilateral RII was defined as a paucity of movement in one limb lasting for at least 10s while the contralateral limb showed purposive or semi-purposive movements (in the absence of tonic or dystonic posturing or clonic movements in the involved limb). The findings were seen in the light of VEEG, radiological and nuclear imaging data, and with post-surgical outcome.
RESULTS: Unilateral RII as a lateralizing sign was found in 24 of 69 patients (34.78%), consisting of both temporal and extra temporal epilepsy, with 100% concordance with VEEG and MRI data. All patients demonstrating this sign had a good post-surgical outcome.
CONCLUSION: RII, when well characterized is a frequent and reliable lateralizing sign in patients of refractory focal epilepsy.

4: Ahamed F, Lohiya A, Kankaria A, Silan V, Kharya P, Rizwan SA. Menstrual Disorders and Its Determinants Among Married Women of Rural Haryana. J Clin Diagn Res. 2015 Sep;9(9):LC06-9. doi: 10.7860/JCDR/2015/13101.6441. Epub 2015 Sep 1. PubMed PMID: 26500925; PubMed Central PMCID: PMC4606254.

INTRODUCTION: Disorders of menstruation are common problems among women. They

have several psychological effects on women's health.
AIM: This study aimed to estimate prevalence of menstrual disorders, usage of sanitary pads and their determinants among married women in selected villages of rural Haryana.
MATERIALS AND METHODS: A cross-sectional study was conducted during September 2011 in 10 villages of PHC (Primary Health Centre) Mandi, Haryana, using a systematic random sampling technique. Currently married women in the age group of 18-45 years living in study area for more than 1 year were included in the study while those who were pregnant and unable to understand questions were excluded. Informed verbal consent was obtained from all participants.
RESULTS: A total of 344 women were interviewed. The mean (SD) age of participants was 28.0 (5.4) years. Majority of women were housewives (78.8%) and most had education up to middle school (22.7%). Mean (SD) age at menarche was 14.3 (1.2) years. Nearly one-tenth of women had married before 18 years of age. Prevalence of all menstrual disorders was 20.3% and most common disorder was excessive pain. About one fifth reported irregularity of menstrual cycles. Almost half were not using sanitary pads during menses. Menstrual disorders were more common among non-users of contraception (OR=1.7, p = 0.04) and housewives (OR = 2.4, p= 0.03).
CONCLUSION: Disorders of menstruation were fairly common among women surveyed. Usage of sanitary pads was quiet low. Awareness generation among women regarding menstrual problems and Behaviour Change Communication to promote usage of sanitary pads are important measures to reduce related morbidity.

5: Ali A, Mishra PK, Sharma S, Arora A, Saluja SS. Effects of PTEN gene alteration in patients with gallbladder cancer. Cancer Genet. 2015 Dec;208(12):587-94. doi: 10.1016/j.cancergen.2015.09.007. Epub 2015 Sep 28. PubMed PMID: 26586294.

Gallbladder cancer (GBC) is an aggressive malignancy usually diagnosed in an advanced stage. We investigated the effects of alterations of the phosphatase and tensin homologue (PTEN) gene on the occurrence and development of GBC, which has not been previously reported. A total 141 cases of GBC were analyzed for mutation, expression, and methylation across the nine exons of the PTEN gene. DNA sequencing methods were applied for mutation detection, whereas protein expression and methylation status were evaluated by immunohistochemical and methylation-specific PCR analysis, respectively. Novel PTEN mutations were observed in 6.3% of cases (9/141), and they included two silent mutations. In mutant cases, according to changes in codons, the respective amino acid sequences were also changed, which caused of proteins. A high percentage (72%) of loss of protein expression was observed more often in cases than in control samples. Interestingly, all nine cases with mutations showed loss of PTEN expression, whereas four of these nine cases showed positive promoter methylation. Hypermethylation was significantly more common in older patients than in younger ones ($P<0.02$). These findings suggest that PTEN mutations and inactivation may play an important role in the development and progression of gallbladder carcinoma.

6: Anjali G, Kaur S, Lakra R, Taneja J, Kalsey GS, Nagendra A, Shrivastav TG, Gouri Devi M, Malhotra N, Kriplani A, Singh R. FSH stimulates IRS-2 expression in human granulosa cells through cAMP/SP1, an inoperative FSH action in PCOS patients. Cell Signal. 2015 Dec;27(12):2452-66. doi: 10.1016/j.cellsig.2015.09.011. Epub 2015 Sep 24. PubMed PMID: 26388164.

Follicle stimulating hormone (FSH) plays a central role in growth and differentiation of ovarian follicles. A plethora of information exists on molecular aspects of FSH responses but little is known about the mechanisms involved in its cross-talk with insulin/IGF-1 pathways implicated in the coordination of energy homeostasis in preovulatory granulosa cells (GCs). In this study, we hypothesized that FSH may regulate IRS-2 expression and thereby maintain the energy balance in GCs. We demonstrate here that FSH specifically

increases IRS-2 expression in human and rat GCs. FSH-stimulated IRS-2 expression was inhibited by actinomycin D or cycloheximide. Furthermore, FSH decreases IRS-2 mRNA degradation indicating post-transcriptional stabilization. Herein, we demonstrate a role of cAMP pathway in the activation of IRS-2 expression by FSH. Scan and activity analysis of IRS-2 promoter demonstrated that FSH regulates IRS-2 expression through SP1 binding sites. FSH stimulates SP1 translocation into nucleus and its binding to IRS-2 promoter. These results are corroborated by the fact that siRNA mediated knockdown of IRS-2 decreased the FSH-stimulated PI3K activity, p-Akt levels, GLUT4 translocation and glucose uptake. However, FSH was not able to increase IRS-2 expression in GCs from PCOS women undergoing IVF. Interestingly, IRS-2 mRNA expression was downregulated in GCs from the PCOS rat model. Taken together, our findings establish that FSH induces IRS-2 expression and thereby activates PI3K, Akt and glucose uptake. Crucially, our data confirms a molecular defect in FSH action in PCOS GCs which may cause deceleration of metabolism and follicular growth leading to infertility. These results lend support for a therapeutic potential of IRS-2 in the management of PCOS.

7: Archana S, Nongkrynh B, Anand K, Pandav CS. Feasibility and validity of using WHO adolescent job aid algorithms by health workers for reproductive morbidities among adolescent girls in rural North India. BMC Health Serv Res. 2015 Sep 21;15:400. doi: 10.1186/s12913-015-1067-x. PubMed PMID: 26390862; PubMed Central PMCID: PMC4578239.

BACKGROUND: High prevalence of reproductive morbidities is seen among adolescents in India. Health workers play an important role in providing health services in the community, including the adolescent reproductive health services. A study was done to assess the feasibility of training female health workers (FHWs) in the classification and management of selected adolescent girls' reproductive health problems according to modified WHO algorithms.
METHODS: The study was conducted between Jan-Sept 2011 in Northern India. Thirteen FHWs were trained regarding adolescent girls' reproductive health as per WHO Adolescent Job-Aid booklet. A pre and post-test assessment of the knowledge of the FHWs was carried out. All FHWs were given five modified WHO algorithms to classify and manage common reproductive morbidities among adolescent girls. All the FHWs applied the algorithms on at least ten adolescent girls at their respective sub-centres. Simultaneously, a medical doctor independently applied the same algorithms in all girls. Classification of the condition was followed by relevant management and advice provided in the algorithm. Focus group discussion with the FHWs was carried out to receive their feedback.
RESULTS: After training the median score of the FHWs increased from 19.2 to 25.2 (p - 0.0071). Out of 144 girls examined by the FHWs 108 were classified as true positives and 30 as true negatives and agreement as measured by kappa was 0.7 (0.5-0.9). Sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) were 94.3% (88.2-97.4), 78.9% (63.6-88.9), 92.5% (86.0-96.2), and 83.3% (68.1-92.1) respectively.
DISCUSSION: A consistent and significant difference between pre and post training knowledge scores of the FHWs were observed and hence it was possible to use the modified Job Aid algorithms with ease. Limitation of this study was the munber of FHWs trained was small. Issues such as time management during routine work, timing of training, overhead cost of training etc were not taken into account.
CONCLUSIONS: Training was successful in increasing the knowledge of the FHWs about adolescent girls' reproductive health issues. The FHWs were able to satisfactorily classify the common adolescent girls' problems using the modified WHO algorithms.

8: Bahl A, Sharma A, Raina V, Kumar L, Bakhshi S, Gupta R, Kumar R. Long-term outcomes for patients with acute myeloid leukemia: a single-center experience from AIIMS, India. Asia Pac J Clin Oncol. 2015 Sep;11(3):242-52. doi: 10.1111/ajco.12333. Epub 2015 Jan 30. PubMed PMID: 25639656.

AIM: To analyze clinicopathological characteristics of acute myeloid leukemia (AML) patients and to evaluate long-term outcome of these patients presented to single tertiary care center in India.
METHODS: We evaluated outcomes of 480 patients (age 8-60 years), classified into good, intermediate and poor risk according to cytogenetic results. Standard "3+7" induction therapy with dose of daunorubicin ranging from 45 to 90 mg/m(2) followed by two to three courses of high-dose cytarabine (12-18 g/m(2)) as consolidation therapy was given to majority.
RESULTS: The complete remission rate of the treated population (407 patients) was 70% with 84.8% in good risk, 67.9% in intermediate risk and 54.2% in poor risk (P = 0.0001). Induction mortality was 18.4%. One hundred twenty-nine patients relapsed with median treatment free interval of 10.4 months. At a median follow-up of 34.5 months, the median overall survival (OS) was 20.6 months with an estimated 5-year survival rate of 35.5%. No difference was found in OS between the three risk groups; however, patients with intermediate risk had a better leukemia-free survival (LFS) in comparison to good risk. Multivariate analysis showed age, performance status, treatment completion and hematopoietic stem cell transplant affecting OS, while only treatment completion affected LFS.
CONCLUSION: This is one of the largest single-center studies reflecting more accurately the outcome of AML in India. These results are likely due to uniform treatment protocols, intensification of induction and post-remission treatments with comprehensive supportive care.

9: Bal CS, Padhy AK. Radioiodine Remnant Ablation: A Critical Review. World J Nucl Med. 2015 Sep-Dec;14(3):144-55. doi: 10.4103/1450-1147.163240. Review. PubMed PMID: 26420983; PubMed Central PMCID: PMC4564915.

Radioiodine remnant ablation (RRA) is considered a safe and effective method for eliminating residual thyroid tissue, as well as microscopic disease if at all present in thyroid bed following thyroidectomy. The rationale of RRA is that in the absence of thyroid tissue, serum thyroglobulin (Tg) measurement can be used as an excellent tumor marker. Other considerations are like the presence of significant remnant thyroid tissue makes detection and treatment of nodal or distant metastases difficult. Rarely, microscopic disease in the thyroid bed if not ablated, in the future, could be a source of anaplastic transformation. On the other hand, microscopic tumor emboli in distant sites could be the cause of distant metastasis too. The ablation of remnant tissue would in all probability eliminate these theoretical risks. It may be noted that all these are unproven contentious issues except postablation serum Tg estimation that could be a good tumor marker for detecting early biochemical recurrence in long-term follow-up strategy. Radioactive iodine is administered as a form of "adjuvant therapy" for remnant ablation. There have been several reports with regard to the administered dose for remnant ablation. The first report of a prospective randomized clinical trial was published from India by a prospective randomized study conducted at the All India Institute of Medical Sciences, New Delhi in the year 1996. The study reported that increasing the empirical (131)I initial dose to more than 50 mCi results in plateauing of the dose-response curve and thus, conventional high-dose remnant ablation needs critical evaluation. Recently, two important studies were published: One from French group and the other from UK on a similar line. Interestingly, all three studies conducted in three different geographical regions of the world showed exactly similar conclusion. The new era of low-dose remnant ablation has taken a firm scientific footing across the continents.

10: Bandopadhyaya GP, Kumar A, Kumari J. Role of (18)F-DOPA PET/CT and (131)I-MIBG planar scintigraphy in evaluating patients with pheochromocytoma. Hell J Nucl Med. 2015 Sep-Dec;18 Suppl 1:141. PubMed PMID: 26665224.

OBJECTIVE: The aim of this retrospective study was to evaluate role of (18)F-DOPA PET/CT and (131)I-MIBG planar scintigraphy in patients with pheochromocytoma.
METHODS: The patients with diagnosis of pheochromocytoma based on radiological

and biochemical markers were retrospectively selected for the study. These patients had undergone both (131)I-MIBG scintigraphy and (18)F-DOPA PET/CT. The imaging findings were compared to patient histopathology reports, biochemical markers and clinical follow up whenever available to establish the diagnosis. RESULTS: (131)I-MIBG showed a sensitivity of 68% and specificity of 100%. (18)F-DOPA PET/CT showed a sensitivity of 82% and specificity of 100%. (18)F-DOPA was better at localizing and finding more no of lesions as compared to (131)I-MIBG scintigraphy. (18)F-DOPA also is a better study in evaluation of paragangliomas.
CONCLUSIONS: (18)F-DOPA PET/CT seems to be a better modality in comparison to (131)I-MIBG scintigraphy in the evaluation of pheochromocytoma/paraganglioma. At this point both these tracers seem to have mutually additive role in these patients and essential investigations with diagnosis and follow-up of this disease.

11: Basak T, Varshney S, Hamid Z, Ghosh S, Seth S, Sengupta S. Identification of metabolic markers in coronary artery disease using an untargeted LC-MS based metabolomic approach. J Proteomics. 2015 Sep 8;127(Pt A):169-77. doi: 10.1016/j.jprot.2015.03.011. Epub 2015 Mar 17. PubMed PMID: 25790721.

Coronary artery disease (CAD), a complex metabolic disorder, is one of the largest causes of death worldwide. Both environmental and genetic factors contribute to the etiology of this metabolic disease. The gene-environment interaction could lead to modulation of various metabolic pathways resulting in altered levels of various metabolites. Thus, identifying metabolites could aid in deciphering pathways that could be involved in the pathophysiology of the disease. With the advent of high resolution mass spectrometry based methodologies, it is now possible to screen thousands of metabolites in a single snapshot thus, allowing the identification of potential disease metabolite markers. In this work, using an untargeted metabolomic approach, we attempted to identify metabolites that have altered levels in CAD patients. Using reverse phase and HILIC based chromatography followed by mass spectrometry we identified a total of 32 metabolites (2 fold; $p<0.05$) in plasma whose levels were significantly altered in CAD samples. Further, we have validated the discriminative ability of these metabolites in an independent set of CAD and control samples using multivariate PLS-DA analysis. Interestingly, Lyso PC (18:0), Cortisol, Lyso PC (P-17:0), and glycerophosphocholine were among the top discriminators for CAD which implies involvement of phosphatidylcholine pathway in the pathogenesis of atherosclerosis.BIOLOGICAL SIGNIFICANCE: Herein, we report that an unbiased metabolomic study has the potential to identify newer markers which are involved in several important biological pathways like lipid metabolism, phosphatidylcholine pathway etc. which in turn are implicated in CAD. These markers could be of potential clinical importance for screening subjects at risk of CAD. This article is part of a Special Issue entitled: Proteomics in India.

12: Behera C, Swain R, Mridha AR, Pooniya S. Suicide by injecting lispro insulin with an intravenous cannula. Med Leg J. 2015 Sep;83(3):147-9. doi: 10.1177/0025817215573171. Epub 2015 Mar 6. PubMed PMID: 25748289.

Suicide by injecting insulin is not uncommon both in diabetic and non-diabetic people. The victim usually uses an insulin syringe or a traditional syringe attached to a needle for the injection of insulin, of either animal or synthetic origin. We report a case of suicide by a non-diabetic physician by injecting lispro insulin through an intravenous cannula. To the best of our knowledge, the use of an intravenous cannula for the injection of insulin for suicide is unusual and is rarely reported in the medico-legal literature.

13: Bhadoria AS, Kapil U, Kaur S. Association of Duration of Time Spent on Television, Computer and Video Games with Obesity amongst Children in National Capital Territory of Delhi. Int J Prev Med. 2015 Sep 1;6:80. doi: 10.4103/2008-7802.164090. eCollection 2015. PubMed PMID: 26445628; PubMed Central PMCID: PMC4587071.

14: Bhari N, Khaitan BK, Gupta P, Kumar T, Srivastava A. Neglect leads to extremes: maggots and malignancy in a case of discoid lupus erythematosus. Lupus. 2016 Jan;25(1):97-101. doi: 10.1177/0961203315603145. Epub 2015 Sep 7. PubMed PMID: 26345675.

Discoid lupus erythematosus (DLE) is a chronic form of cutaneous lupus erythematosus that runs an indolent course. The rare complications of DLE include scarring, mutilation, non-healing ulceration, cicatricial alopecia and malignancy. DLE progresses to systemic lupus erythematosus (SLE) in around 5% of localized cases and 22% of generalized cases. We report a case of DLE, presenting with a six-month history of ulcerated fungating plaques and small crusted nodules superimposed on DLE plaques over both the forearms. Two weeks prior to the presentation, maggots were also noticed on these plaques. Skin biopsies from these lesions were suggestive of squamous cell carcinoma (SCC) and keratoacanthoma. A wide surgical excision of the tumor followed by partial split-thickness skin grafting was performed with complete healing of the lesions. No recurrence has been noted 18 months from follow-up.

15: Bhatia R, Bali P, Chaudhari RM. Epidemiology and genetic aspects of multiple sclerosis in India. Ann Indian Acad Neurol. 2015 Sep;18(Suppl 1):S6-S10. doi: 10.4103/0972-2327.164814. Review. PubMed PMID: 26538851; PubMed Central PMCID: PMC4604700.

Multiple sclerosis (MS) is a chronic inflammatory demyelinating disease of the central nervous system with a complex pathophysiology. Considered a rare disease in India in the past, studies over time suggest an increase in subjects with MS in India, although the observations are limited by the lack of formally conducted epidemiological studies and the absence of a nationwide registry. The current World Health Organization (WHO) Multiple Sclerosis International Federation (MSIF) "Atlas of MS" 2013 estimates a prevalence rate of 5-20 per 100,000, which also seems an underestimate. Although there have been reports of phenotypic differences between MS in Indians and the Western counterparts, recent studies report a reasonable similarity in disease types and characteristics. A few studies on the genetics of MS have been reported, including human leukocyte antigen (HLA) associations and non-major histopathology complex (MHC) disease loci. The current review discusses the pivotal studies of the past, newer observations on MS from India, and the need for a national registry.

16: Bhatia R, Sharma VK, Ramam M, Sethuraman G, Yadav CP. Clinical profile and quality of life of patients with occupational contact dermatitis from New Delhi, India. Contact Dermatitis. 2015 Sep;73(3):172-81. doi: 10.1111/cod.12411. Epub 2015 May 20. PubMed PMID: 25990826.

BACKGROUND: Data regarding occupational contact dermatitis (OCD) and its effect on quality of life (QOL) in India are limited.
OBJECTIVES/AIMS: To evaluate patients with OCD and record the outcome of treatment.
PATIENTS/MATERIALS/METHODS: All patients with OCD were evaluated for severity of disease (by the use of physician global assessment) and its effect on QOL (by use of the Dermatology Life Quality Index) questionnaire) at the first visit and after 3 months of treatment.
RESULTS: Among 117 patients with OCD, hand eczema was present in 81.2%. Positive patch test reactions were found in 76%. The most common allergens were Parthenium

hysterophorus and potassium dichromate. The most frequent diagnosis was occupational allergic contact dermatitis (OACD) (57%), caused by farming and construction work, followed by occupational irritant contact dermatitis (OICD) (24%), caused by wet work. Severe psychosocial distress was recorded in 62.5% of patients. After 3 months of treatment, 83% improved significantly, and 54% had improvement in QOL.
CONCLUSIONS: Farmers were most frequently affected, followed by construction workers and housewives. OACD was found at a higher frequency than OICD. The most frequent allergens were Parthenium hysterophorus in farmers, potassium dichromate in construction workers, and vegetables in housewives. OCD has a significant impact on QOL. Patch testing, in addition to standard treatment, improves the outcome considerably.

17: Bopanna S, Shalimar. Intestinal FXR: A New Therapeutic Target for Nonalcoholic Fatty Liver Disease. J Clin Exp Hepatol. 2015 Sep;5(3):264-6. doi: 10.1016/j.jceh.2015.08.006. Epub 2015 Oct 27. PubMed PMID: 26628846; PubMed Central PMCID: PMC4632102.

18: Chawla H, Lakhani OJ, Swayamsidha M, Ellareddy C, Mallikarjun VJ. Endocrine Society of India Fun Research Workshop 2015: The participants perspective. Indian J Endocrinol Metab. 2015 Sep-Oct;19(5):692-3. doi: 10.4103/2230-8210.163216. PubMed PMID: 26425487; PubMed Central PMCID: PMC4566358.

19: Chikkanayakanahalli Narasimhaiah P, Gupta S, Khokhar S, Vanathi M, Dada T, Pandey RM, Agarwal T. Corneal Polishing After Pterygium Excision With Motorized Diamond Burr: A Randomized Control Trial. Eye Contact Lens. 2015 Sep;41(5):268-72. doi: 10.1097/ICL.0000000000000115. PubMed PMID: 25603442.

PURPOSE: To evaluate outcomes of motorized diamond burr polishing versus manual polishing after pterygium excision.
SETTING: Dr. Rajendra Prasad Center for Ophthalmic Sciences, New Delhi.
DESIGN: A randomized, interventional observer-masked controlled trial.
METHODS: Forty consecutive eyes underwent pterygium excision with fibrin, glue-assisted conjunctival autograft. In group 1 (20 eyes), polishing of the corneal bed was done using a crescent blade, and in group 2 (20 eyes), using a motorized diamond burr.
RESULTS: There was no difference in the 2 groups with respect to mean age (P=0.08), gender (P=0.3), preoperative uncorrected visual acuity (UCVA) (P=0.45), best spectacle-corrected visual acuity (BCVA) (P=0.52), spherical equivalent (P=0.5), mean astigmatism (P=0.7), tear function tests like tear break-up time, tear film meniscus height, Schirmer I and II (P=0.6, 0.5, 0.7, 0.9 respectively), pterygium dimension (P=0.4), and conjunctival autograft size (P=0.24). Mean intraoperative surgical time was significantly more in group 1 (16.9 ± 2.85 min) as compared with 12.25 ± 1.88 min in group 2 (P=0.0001). Postoperatively, there was a statistically significant reduction in astigmatism and improvement in UCVA, BCVA, spherical equivalent in all eyes. No difference was found in mean epithelial defect healing time, UCVA, BCVA, astigmatism, tear film break-up time, Schirmer I and II, and tear meniscus height at 6 months between 2 groups; however, significantly better UCVA was found in group 2 at 3 months (P=0.04). Surgically induced astigmatism (SIA) was significantly more in group 2 as compared with group 1 at 6 months (P=0.0006).
CONCLUSIONS: Motorized diamond burr polishing of the corneoscleral bed during primary pterygium excision in comparison with manual polishing requires significantly lesser surgical time with better UCVA, decreased astigmatism, and greater SIA at 6 months, which indicates greater astigmatic correction.

20: Dabas A, Khadgawat R. Vitamin D Receptor Polymorphisms and Bone Mass Accrual in Indian Girls. Indian J Pediatr. 2015 Nov;82(11):975-6. doi:

10.1007/s12098-015-1898-9. Epub 2015 Sep 24. PubMed PMID: 26400033.

21: Das RR, Sankar MJ. Stressful Life in NICU: Time to Nurse the Neonatal Nurses. Indian J Pediatr. 2015 Nov;82(11):983-4. doi: 10.1007/s12098-015-1897-x. Epub 2015 Sep 24. PubMed PMID: 26400034.

22: Dayal M, Gamanagatti S. Inferior vena cava web causing Budd-Chiari syndrome. Arab J Gastroenterol. 2015 Sep-Dec;16(3-4):148-9. doi: 10.1016/j.ajg.2015.06.007. Epub 2015 Nov 3. PubMed PMID: 26545960.

23: Deepa M, Grace M, Binukumar B, Pradeepa R, Roopa S, Khan HM, Fatmi Z, Kadir MM, Naeem I, Ajay VS, Anjana RM, Ali MK, Prabhakaran D, Tandon N, Mohan V, Narayan KM; CARRS Surveillance Research Group. High burden of prediabetes and diabetes in three large cities in South Asia: The Center for cArdio-metabolic Risk Reduction in South Asia (CARRS) Study. Diabetes Res Clin Pract. 2015 Nov;110(2):172-82. doi: 10.1016/j.diabres.2015.09.005. Epub 2015 Sep 25. PubMed PMID: 26432412.

AIM: To estimate the prevalence of, and assess factors associated with, diabetes and prediabetes in three South Asian cities.
METHODS: Using a multi-stage cluster random sample representative of each city, 16,288 subjects aged ≥20 years (Chennai: 6906, Delhi: 5365 and Karachi: 4017) were recruited to the Centre for cArdio-metabolic Risk Reduction in South-Asia (CARRS) Study. Fasting plasma glucose (FPG) and glycosylated hemoglobin (HbA1c) were measured in 13720 subjects. Prediabetes was defined as FPG 100-125mg/dl (5.6-6.9mmol/l) and/or HbA1c 5.7-6.4% (39-46mmol/mol) and diabetes as self-report and/or drug treatment for diabetes and/or FPG≥126mg/dl (≥7.0mmol/l) and/or HbA1c≥6.5% (48mmol/mol). We assessed factors associated with diabetes and prediabetes using polytomous logistic regression models.
RESULTS: Overall 47.3-73.1% of the population had either diabetes or prediabetes: Chennai 60.7% [95%CI: 59.0-62.4%] (diabetes - 22.8% [21.5-24.1%], prediabetes - 37.9% [36.1-39.7%]); Delhi 72.7% [70.6-74.9%] (diabetes - 25.2% [23.6-26.8%], prediabetes - 47.6% [45.6-49.5%]); and Karachi 47.4% [45.7-49.1%]; (diabetes - 16.3% [15.2-17.3%], prediabetes - 31.1% [29.5-32.8%], respectively). Proportions of self-reported diabetes were 55.1%, 39.0%, and 48.0% in Chennai, Delhi, and Karachi, respectively. City, age, family history of diabetes, generalized obesity, abdominal obesity, body fat, high cholesterol, high triglyceride, and low HDL cholesterol levels were each independently associated with prediabetes, while the same factors plus waist-to-height ratio and hypertension were associated with diabetes.
CONCLUSION: Six in ten adults in large South Asian cities have either diabetes or prediabetes. These data call for urgent action to prevent diabetes in South Asia.

24: Devi SK, Sunkesula G, Bhattacharjee S, Baidya DK, Maitra S. Bilateral pheochromocytoma: Two tumors may not be same! Anesth Essays Res. 2015 Sep-Dec;9(3):451-2. doi: 10.4103/0259-1162.159772. PubMed PMID: 26712999; PubMed Central PMCID: PMC4683500.

25: Dhull VS, Rana N, Nazar AH. Contrast Media in PET/Computed Tomography Imaging. PET Clin. 2016 Jan;11(1):85-94. doi: 10.1016/j.cpet.2015.07.007. Epub 2015 Sep 16. Review. PubMed PMID: 26590446.

Is there a need for the contrast-enhanced PET/computed tomography (CT) scan or is the low-dose, non-contrast-enhanced PET/CT scan sufficient? The topic has been debated time and again. Although low-dose noncontrast CT serves the purpose of simple anatomic correlation and attenuation correction of PET images, many times

patients have to undergo additional contrast-enhanced diagnostic imaging modalities, which may lead to a delay in decision-making. In this review, the authors have addressed various such issues related to the use of contrast agents and special techniques of clinical interest based on their utility in dual-modality PET/CT.

26: Dixit SG, Chauhan P. Absent caudate lobe of liver: anatomical and clinical relevance. Liver Int. 2015 Oct;35(10):2338. doi: 10.1111/liv.12926. Epub 2015 Sep 15. PubMed PMID: 26230252.

27: Dubey R, Saini L, Manokaran RK, Chakrabarty B, Agrawal D, Kumar A, Gulati S. A Trembling Child at Rest, Action, and Intention: A Unique Treatable Entity. Pediatr Neurol. 2015 Sep;53(3):268-9. doi: 10.1016/j.pediatrneurol.2015.05.007. Epub 2015 May 22. PubMed PMID: 26164825.

28: Fehlings MG, Ibrahim A, Tetreault L, Albanese V, Alvarado M, Arnold P, Barbagallo G, Bartels R, Bolger C, Defino H, Kale S, Massicotte E, Moraes O, Scerrati M, Tan G, Tanaka M, Toyone T, Yukawa Y, Zhou Q, Zileli M, Kopjar B. A global perspective on the outcomes of surgical decompression in patients with cervical spondylotic myelopathy: results from the prospective multicenter AOSpine international study on 479 patients. Spine (Phila Pa 1976). 2015 Sep 1;40(17):1322-8. doi: 10.1097/BRS.0000000000000988. PubMed PMID: 26020847.
STUDY DESIGN: Prospective, multicenter international cohort.
OBJECTIVE: To evaluate outcomes of surgical decompression for cervical spondylotic myelopathy (CSM) at a global level.
SUMMARY OF BACKGROUND DATA: CSM is a degenerative spine disease and the most common cause of spinal cord dysfunction worldwide. Surgery is increasingly recommended as the preferred treatment strategy for CSM to improve neurological and functional status and quality of life. The outcomes of surgical intervention for CSM have never been evaluated at an international level.
METHODS: Between October 2007 and January 2011, 479 symptomatic patients with image evidence of CSM were enrolled in the prospective, multicenter AOSpine CSM-International study from 16 global sites. Preoperative and postoperative clinical status, functional impairment, and quality of life were evaluated using the modified Japanese Orthopaedic Assessment Scale, Nurick Scale, Neck Disability Index, and Short-Form-36v2. Preoperative and 12- and 24-month postoperative outcomes were compared using mixed-model analysis of covariance for repeated measurements.
RESULTS: The study cohort consisted of 310 males and 169 females, with a mean age of 56.37 ± 11.91 years. There were significant differences in age, etiology, and surgical approaches between the regions. At 24 months postoperatively, the mean modified Japanese Orthopaedic Assessment Scale score improved from 12.50 (95% confidence interval [CI], 12.24-12.76) to 14.90 (95% CI, 14.64-15.16); the Neck Disability Index improved from 36.38 (95% CI, 34.33-38.43) to 23.20 (95% CI, 21.24-25.15); and the SF36v2 Physical Component Score and Mental Composite Score improved from 34.28 (95% CI, 33.46-35.10) to 40.76 (95% CI, 39.71-41.81) and 39.45 (95% CI, 38.25-40.64) to 46.24 (95% CI, 44.94-47.55), respectively. The rate of neurological complications was 3.13%.
CONCLUSION: Surgical decompression for CSM is safe and results in improved functional status and quality of life in patients around the world, irrespective of differences in medical systems and sociocultural determinants of health.
LEVEL OF EVIDENCE: 3.

29: Gagnani SP, Agarwal B, Bhutia O, Roychoudhury A. New method of harvesting a buccal fat pad for interposition after gap arthroplasty of the temporomandibular joint. Br J Oral Maxillofac Surg. 2015 Sep 19. pii: S0266-4356(15)00575-6. doi: 10.1016/j.bjoms.2015.09.004. [Epub ahead of print] PubMed PMID: 26395214.

30: Ganie MA, Dhingra A, Nisar S, Sreenivas V, Shah ZA, Rashid A, Masoodi S, Gupta N. Oral glucose tolerance test significantly impacts the prevalence of abnormal glucose tolerance among Indian women with polycystic ovary syndrome: lessons from a large database of two tertiary care centers on the Indian subcontinent. Fertil Steril. 2016 Jan;105(1):194-201.e3. doi: 10.1016/j.fertnstert.2015.09.005. Epub 2015 Sep 25. PubMed PMID: 26407537.

OBJECTIVE: To estimate the prevalence of abnormal glucose tolerance (AGT) among Indian women with polycystic ovary syndrome (PCOS) and analyze the role of oral glucose tolerance (OGTT) test on its estimation.
DESIGN: Cross-sectional clinical study.
SETTING: Tertiary care center.
PATIENT(S): A total of 2,014 women with PCOS diagnosed on the basis of the Rotterdam 2003 criteria were enrolled, and the data of 1,746 subjects were analyzed.
INTERVENTION(S): In addition to recording clinical, biochemical, and hormone parameters, a 75 g OGTT was administered.
MAIN OUTCOME MEASURE(S): Prevalence of AGT and impact of age, body mass index (BMI), family history, and OGTT on its prevalence.
RESULT(S): The mean age of subjects was 23.8 ± 5.3 years, with a mean BMI of 24.9 ± 4.4 kg/m(2). The overall prevalence of AGT was 36.3% (6.3% diabetes and 30% impaired fasting plasma glucose/impaired glucose tolerance) using American Diabetes Association criteria. The glucose intolerance showed a rising trend with advancing age (30.3%, 35.4%, 51%, and 58.8% in the second, third, fourth, and fifth decades, respectively) and increasing BMI. Family history of diabetes mellitus was present in 54.6% (953/1,746) subjects, and it did not correlate with any of the studied parameters except waist circumference and BMI. Sensitivity was better with 2-hour post-OGTT glucose values as compared with fasting plasma glucose, since using fasting plasma glucose alone would have missed the diagnosis in 107 (6.1%) subjects.
CONCLUSION(S): We conclude that AGT is high among young Indian women with PCOS and that it is not predicted by family history of type 2 DM. OGTT significantly improves the detection rate of AGT among Indian women with PCOS.

31: Garg B, Pannu CD, Poudel RR, Morey V. Author Response: Isolated Spontaneous Primary Tubercular Erector Spinae Abscess: A Case Report and Review of Literature. Asian Spine J. 2015 Oct;9(5):831-2. doi: 10.4184/asj.2015.9.5.831. Epub 2015 Sep 22. PubMed PMID: 26435807; PubMed Central PMCID: PMC4591460.

32: Gharde P, Rastogi A, Kumar S, Choudhary SK. Management of acute intra-operative thromboembolism in renal cell carcinoma. Anesth Essays Res. 2015 Sep-Dec;9(3):417-9. doi: 10.4103/0259-1162.158011. PubMed PMID: 26712987; PubMed Central PMCID: PMC4683486.

Renal cell carcinoma (RCC) is the most common malignant tumor of the kidney and has got association with inferior vena cava (IVC) extension in 5-10% of the patients. In this case report, we present a case of a 22-year- young female who was posted for radical nephrectomy and tumor thrombectomy to remove the thrombus extending up to IVC- right atrium junction. The surgical procedure was complicated by intraoperative thromboembolism during tumour manipulation. Continual Trans esophageal monitoring helps in early diagnosis of thromembolic event. Immediate diagnosis and awareness of clinical management in such circumstances contribute to a decrease in the associated morbidity and mortality.

33: Goyal S, Julka PK. Sister Mary Joseph's nodule. Indian Dermatol Online J. 2015 Sep-Oct;6(5):372. doi: 10.4103/2229-5178.164472. PubMed PMID: 26500881; PubMed Central PMCID: PMC4594410.

34: Gulati S, Chakrabarty B, Kumar A, Jain P, Patel H, Saini L. Acquired demyelinating disorders of central nervous system: A pediatric cohort. Ann Indian Acad Neurol. 2015 Sep;18(Suppl 1):S48-55. doi: 10.4103/0972-2327.164829. PubMed PMID: 26538849; PubMed Central PMCID: PMC4604698.

OBJECTIVE: This is a retrospective chart review of consecutive children with acquired demyelinating disorders presenting to a north Indian tertiary care hospital over 4 years. The aim of this review is to describe all the patients (with single event as well as those with recurrences) with detailed description of those who recurred.
MATERIALS AND METHODS: Overall 35 cases were reviewed and their clinical presentations, diagnosis, management, and follow-up are being presented.
RESULTS: Out of 35 cases, 24 did not show any recurrences (seven acute disseminated encephalomyelitis (ADEM) and 17 clinically isolated syndromes). Amongst the 11 patients with recurrent demyelination, majority were multiple sclerosis (8/11, 72.7%) followed by neuromyelitis optica (NMO; 2/11), and multiphasic ADEM (1/11). The median disease duration and follow-up since onset for those with recurrent episodes is 4 years (2.5-4.5 years). Steroids caused significant improvement in acute episodes of demyelination. However, recurrent demyelinating disorders like multiple sclerosis and NMO required long-term immunomodulation. Azathioprine currently is the most favored long-term immunomodulator used in NMO. Interferon-β and glatiramer acetate are currently recommended for multiple sclerosis. However, azathioprine may be a suitable alternative in a resource-limited setting.
CONCLUSION: The consensus definitions for these groups of disorders need further validation in the pediatric age group. Studies with larger population size are required to characterize features that predict future recurrences.

35: Gupta A, Jain G, Kaur M, Jaryal AK, Deepak KK, Bhowmik D, Agarwal SK. Association of impaired baroreflex sensitivity and increased arterial stiffness in peritoneal dialysis patients. Clin Exp Nephrol. 2015 Sep 5. [Epub ahead of print] PubMed PMID: 26342707.

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.

36: Gupta A, Bhatia R, Sharma G, Prasad K, Singh MB, Vibha D. Predictors of Ischemic Stroke in Rheumatic Heart Disease. J Stroke Cerebrovasc Dis. 2015 Dec;24(12):2810-5. doi: 10.1016/j.jstrokecerebrovasdis.2015.08.014. Epub 2015 Sep 26. PubMed PMID: 26409719.

BACKGROUND: Studies on predictors of ischemic strokes caused by rheumatic heart disease (RHD) are sparse and extremely important for identifying high-risk cases to direct future therapeutic trials for prevention of ischemic stroke in this population.
OBJECTIVE: The aim of the present study was to study the predictors of ischemic stroke in patients with RHD and to observe outcome of patients with ischemic stroke at 3 months' follow-up using modified Rankin scale.
METHODS: We conducted a case-control study comparing the clinical profile of 40 adult patients with acute ischemic stroke caused by RHD with equal numbers of matched controls comprising patients with RHD without any prior history of stroke. We also observed the functional outcome of ischemic strokes in these patients.
RESULTS: The presence of left atrial spontaneous echo contrast (odds ratio=39.9; 95% confidence interval, 3.16-501.9; P=.004) and atrial fibrillation (AF) (odds ratio=3.2; 95% confidence interval, 1.6-6.7; P=.002) was significantly associated with stroke occurrence in RHD populations. The outcome of patients was good with low mortality and significant improvement of modified Rankin scale at 3 months' follow-up.
CONCLUSIONS: Presence of AF and left atrial spontaneous echo contrast are significant risk factors for ischemic stroke in patients with RHD. There is high percentage of subclinical AF in this population. Future large clinical trials for oral anticoagulation/antiplatelet agents are needed for stroke prevention in high-risk RHD patients identified by a detailed workup.

37: Gupta AK, Jana M. Hemophilia Management and Follow-up: Role of Radiological and Functional Assessment of the Disease Severity. Indian J Pediatr. 2015 Dec;82(12):1084-5. doi: 10.1007/s12098-015-1882-4. Epub 2015 Sep 24. PubMed PMID: 26400035.

38: Gupta N, Gothwal S, Satpathy AK, Missaglia S, Tavian D, Das P, Timila D, Kabra M. Chanarin Dorfman syndrome: a case report with novel nonsense mutation. Gene. 2016 Jan 10;575(2 Pt 1):359-62. doi: 10.1016/j.gene.2015.09.004. Epub 2015 Sep 6. PubMed PMID: 26353074.

Chanarin Dorfman syndrome (CDS) is a very rare neutral lipid metabolism disorder with multisystem involvement. It is inherited as an autosomal recessive manner. It is characterized with congenital ichthyosiform erythroderma and involvement of liver, muscle, and central nervous system. Demonstration of lipid vacuoles in neutrophils from peripheral blood smears in patients with ichthyosiform erythroderma leads to the diagnosis. We report a novel ABHD5 truncating variant in a twenty nine month old female child, who presented with icthyosiform erythroderma.

39: Gupta N, Jain P, Kabra M, Gulati S, Sethuraman G. Acrodermatitis Dysmetabolica--Report of Two Cases. Indian J Pediatr. 2015 Sep;82(9):869-70. doi: 10.1007/s12098-015-1715-5. Epub 2015 Feb 15. PubMed PMID: 25680786.

40: Gupta N, Jain P, Singh K. Congenital Mirror Movements in a 7-Year-Old Boy. Pediatr Neurol. 2015 Dec;53(6):543-4. doi: 10.1016/j.pediatrneurol.2015.08.012. Epub 2015 Sep 3. PubMed PMID: 26428600.

41: Gupta SK, Gupta A, Ramakrishnan S, Anderson RH. Clarifying the atrioventricular junctional anatomy in the setting of double outlet right atrium. Ann Pediatr Cardiol. 2015 Sep-Dec;8(3):233-9. doi: 10.4103/0974-2069.164688. PubMed PMID: 26556972; PubMed Central PMCID: PMC4608203.

Double outlet atrium is a rare cardiac anomaly wherein one of the atriums, most frequently the right atrium, opens into both the ventricles. Although seen more commonly in the setting of atrioventricular septal defect, this arrangement can also be found when one of the atrioventricular connections is atretic due to absence of the atrioventricular connection and the other atrioventricular valve straddles the muscular ventricular septum. It is the specific anatomy and connections of the atrioventricular junction that clarifies the situation and distinguishes between these two types of double outlet atrium. In this report, we present a case of double outlet right atrium co-existing with the absence of left atrioventricular connection. We then discuss the morphologic aspects of this interesting anomaly.

42: Gupta SK. Clinical Approach to a Neonate with Cyanosis. Indian J Pediatr. 2015 Nov;82(11):1050-60. doi: 10.1007/s12098-015-1871-7. Epub 2015 Sep 19. PubMed PMID: 26385740.

Cyanosis is always pathological and demands detailed evaluation. Combined use of clinical findings, electrocardiogram and chest radiograph permits determination of underlying cause in vast majority. Stepwise approach allows hemodynamic classification of the cardiac lesion and directs immediate management. Accurate anatomic diagnosis of the cardiac malformation is seldom essential for preliminary management and therefore, emphasis must be on clinical classification rather than on obtaining echocardiographic diagnosis.

43: Gupta V, Patra S, Firdaus Ali M, Sethuraman G. Sclerodermoid Hypertrichotic Plaques with Insulin-Dependent Diabetes Mellitus. Pediatr Dermatol. 2015 Sep-Oct;32(5):731-2. doi: 10.1111/pde.12574. PubMed PMID: 26358921.

44: Gupta V, Khaitan BK. Therapeutic potential of biosimilars in dermatology. Indian J Dermatol Venereol Leprol. 2015 Sep-Oct;81(5):451-6. doi: 10.4103/0378-6323.163706. PubMed PMID: 26323679.

The introduction of biologic therapy has revolutionized the treatment of many chronic diseases, including several dermatological disorders. Biological agents promise to satisfy medical needs previously unmet by conventional medicines. Unfortunately, these agents are expensive and out of reach for the majority of patients who need them. Biosimilars are copies of the innovator biological agents and represent an important advance in the field of biological therapeutics. Although they are similar to the original biologic, differences in terms of structure, efficacy, safety and immunogenicity remain a concern. Thus, biosimilars cannot be regarded as bio-generics. Awareness of the key differences between a biosimilar and its reference biological agent is essential for optimal treatment and safety of patients. The increasing availability of biosimilars provides patients and doctors with less expensive alternatives and increases the accessibility of biologic therapy to needy patients. In this review, we discuss the concept of biosimilars, the need for appropriate regulatory pathways and their current status in dermatology.

45: Ha IS, Yap HK, Munarriz RL, Zambrano PH, Flynn JT, Bilge I, Szczepanska M, Lai WM, Antonio ZL, Gulati A, Hooman N, van Hoeck K, Higuita LM, Verrina E, Klaus G, Fischbach M, Riyami MA, Sahpazova E, Sander A, Warady BA, Schaefer F;

International Pediatric Peritoneal Dialysis Network Registry. Risk factors for loss of residual renal function in children treated with chronic peritoneal dialysis. Kidney Int. 2015 Sep;88(3):605-13. doi: 10.1038/ki.2015.108. Epub 2015 Apr 15. PubMed PMID: 25874598; PubMed Central PMCID: PMC4558567.

In dialyzed patients, preservation of residual renal function is associated with better survival, lower morbidity, and greater quality of life. To analyze the evolution of residual diuresis over time, we prospectively monitored urine output in 401 pediatric patients in the global IPPN registry who commenced peritoneal dialysis (PD) with significant residual renal function. Associations of patient characteristics and time-variant covariates with daily urine output and the risk of developing oligoanuria (under 100 ml/m(2)/day) were analyzed by mixed linear modeling and Cox regression analysis including time-varying covariates. With an average loss of daily urine volume of 130 ml/m(2) per year, median time to oligoanuria was 48 months. Residual diuresis significantly subsided more rapidly in children with glomerulopathies, lower diuresis at start of PD, high ultrafiltration volume, and icodextrin use. Administration of diuretics significantly reduced oligoanuria risk, whereas the prescription of renin-angiotensin system antagonists significantly increased the risk oligoanuria. Urine output on PD was significantly associated in a negative manner with glomerulopathies (-584 ml/m(2)) and marginally with the use of icodextrin (-179 ml/m(2)) but positively associated with the use of biocompatible PD fluid (+111 ml/m(2)). Children in both Asia and North America had consistently lower urine output compared with those in Europe perhaps due to regional variances in therapy. Thus, in children undergoing PD, residual renal function depends strongly on the cause of underlying kidney disease and may be modifiable by diuretic therapy, peritoneal ultrafiltration, and choice of PD fluid.

46: Haris M, Yadav SK, Rizwan A, Singh A, Wang E, Hariharan H, Reddy R, Marincola FM. Molecular magnetic resonance imaging in cancer. J Transl Med. 2015 Sep 23;13:313. doi: 10.1186/s12967-015-0659-x. PubMed PMID: 26394751; PubMed Central PMCID: PMC4579835.

The ability to identify key biomolecules and molecular changes associated with cancer malignancy and the capacity to monitor the therapeutic outcome against these targets is critically important for cancer treatment. Recent developments in molecular imaging based on magnetic resonance (MR) techniques have provided researchers and clinicians with new tools to improve most facets of cancer care. Molecular imaging is broadly described as imaging techniques used to detect molecular signature at the cellular and gene expression levels. This article reviews both established and emerging molecular MR techniques in oncology and discusses the potential of these techniques in improving the clinical cancer care. It also discusses how molecular MR, in conjunction with other structural and functional MR imaging techniques, paves the way for developing tailored treatment strategies to enhance cancer care.

47: Jain A, Gupta S, James MK, Dutta P, Gupta V. Aniridic Glaucoma: Long-term Visual Outcomes and Phenotypic Associations. J Glaucoma. 2015 Sep;24(7):539-42. doi: 10.1097/IJG.0000000000000019. PubMed PMID: 24618569.

PURPOSE: The aim of this study was to evaluate long-term visual outcomes in patients with aniridic glaucoma.
DESIGN: Retrospective noncomparative observational case series.
MATERIALS AND METHODS: A review of medical records of 128 eyes of 64 consecutive patients with aniridic glaucoma, diagnosed after the age of 5 years was analyzed. The parameters studied included age at presentation, family history, baseline intraocular pressure (IOP), type and the number of surgical interventions, and associated comorbidities.
PRIMARY OUTCOME MEASURE: Best corrected visual acuity (BCVA) in the better eye.
RESULTS: Mean age at presentation was 15.86±10.11 years (range, 5 to 47 y). The average follow-up was 7.69±4.98 years (range, 1 to 17 y). At the final follow up

only 18 patients had BCVA better than 6\60 and only 5 patients had BCVA of >6/18. Seventeen of the 64 (26.5%) patients developed phthisis in 1 eye. The final visual outcomes were not associated with age at presentation (P=0.64) or sex (P=0.76); however, those with a higher baseline IOP (P=0.017), those with familial aniridia (P=0.037), and those who underwent more number of surgical interventions had poorer visual outcomes (P=0.004). Kaplan-Meier analysis demonstrated the probability of bilateral blindness to be 69.8% and 97.6% at 5 and 10 years, respectively.
CONCLUSIONS: Long-term visual outcomes after therapy among aniridic glaucoma patients remain poor. Higher baseline IOP, the presence of familial aniridia, and a history of greater number of surgical interventions are associated with poorer long-term visual outcomes.

48: Jain R, Jhanjee S, Jain V, Gupta T, Mittal S, Chauhan P, Raghav R, Goelz P, Schnoll RA. Biochemical Validation of Self-Reported Smokeless Tobacco Abstinence among Smokeless Tobacco Users: Results from a Clinical Trial of Varenicline in India. J Psychoactive Drugs. 2015 Sep-Oct;47(4):331-5. doi: 10.1080/02791072.2015.1073412. Epub 2015 Aug 28. PubMed PMID: 26317285; PubMed Central PMCID: PMC4698153.

The validity of self-reported tobacco use is often questioned given the potential for underestimation of use. This study used data from a double-blind, placebo-controlled clinical trial of varenicline for smokeless tobacco dependence in India to evaluate the accuracy of self-reported smokeless tobacco cessation using biochemical validation procedures and to evaluate correlates of reporting inaccuracy. Smokeless tobacco users attending a dental clinic at AIIMS were randomized to placebo or varenicline; all participants received counseling. Detailed smokeless tobacco use was recorded and abstinence was defined as cotinine-verified 7-day point prevalence cessation (cotinine < 50 ng/ml) and breath CO > 10 ppm at the end of 12 weeks of treatment. One-half of study completers (82/165) self-reported abstinence. Biochemical verification confirmed that (65.9%) subjects provided accurate self-reports while (34.1%) participants underreported tobacco use. These data indicate poor agreement between self-reported and biochemically confirmed abstinence ($\kappa = -0.191$). Underreporters of tobacco use had significantly higher baseline cotinine ($p < 0.05$), total craving ($p < 0.012$), and negative reinforcement craving ($p < 0.001$) vs. those whose self-reports were correctly verified. These findings provide evidence to support the need for biochemical validation of self-reported abstinence outcomes among smokeless tobacco users in cessation programs in India and identify high levels of pretreatment cotinine and craving levels as potential correlates of false reporting. The validity of self-reported tobacco use is often questioned given the potential
for underestimation of use. This study used data from a double-blind, placebo-controlled clinical trial of varenicline for smokeless tobacco dependence in India to evaluate the accuracy of self-reported smokeless tobacco cessation using biochemical validation procedures and to evaluate correlates of reporting inaccuracy. Smokeless tobacco users attending a dental clinic at AIIMS were randomized to placebo or varenicline; all participants received counseling. Detailed smokeless tobacco use was recorded and abstinence was defined as cotinine-verified 7-day point prevalence cessation (cotinine < 50 ng/ml) and breath CO > 10 ppm at the end of 12 weeks of treatment. One-half of study completers (82/165) self-reported abstinence. Biochemical verification confirmed that (65.9%) subjects provided accurate self-reports while (34.1%) participants underreported tobacco use. These data indicate poor agreement between self-reported and biochemically confirmed abstinence ($\kappa = -0.191$). Underreporters of tobacco use had significantly higher baseline cotinine ($p < 0.05$), total craving ($p < 0.012$), and negative reinforcement craving ($p < 0.001$) vs. those whose self-reports were correctly verified. These findings provide evidence to support the need for biochemical validation of self-reported abstinence outcomes among smokeless tobacco users in cessation programs in India and identify high levels of pretreatment cotinine and craving levels as potential correlates of false reporting.

49: Jain V, Kurpad AV, Kumar B, Devi S, Sreenivas V, Paul VK. Body composition of term healthy Indian newborns. Eur J Clin Nutr. 2015 Sep 16. doi: 10.1038/ejcn.2015.152. [Epub ahead of print] 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%.European Journal of Clinical Nutrition advance online publication, 16 September 2015; doi:10.1038/ejcn.2015.152.

50: Jat KR, Kabra SK. Obesity and Pulmonary Function Tests. Indian J Pediatr. 2015 Dec;82(12):1089-90. doi: 10.1007/s12098-015-1888-y. Epub 2015 Sep 16. PubMed PMID: 26374739.

51: Jayaraj P, Sen S, Sharma A, Chosdol K, Kashyap S, Rai A, Pushker N, Bajaj M. Eyelid sebaceous carcinoma: a novel mutation in lymphoid enhancer-binding factor-1. Br J Dermatol. 2015 Sep;173(3):811-4. doi: 10.1111/bjd.13706. Epub 2015 Jul 22. PubMed PMID: 25639559.

52: Jhanjee S, Jain R, Jain V, Gupta T, Mittal S, Goelz P, Schnoll RA. Evaluating the Effects of Varenicline on Craving, Withdrawal, and Affect in a Randomized, Double-Blind, Placebo-Controlled Clinical Trial of Varenicline for Smokeless Tobacco Dependence in India. J Psychoactive Drugs. 2015 Sep-Oct;47(4):325-30. doi: 10.1080/02791072.2015.1075092. Epub 2015 Aug 28. PubMed PMID: 26317176; PubMed Central PMCID: PMC4699413.

This study examined changes in tobacco craving, withdrawal, and affect as correlates of efficacy in a phase-2 clinical trial of varenicline for smokeless tobacco dependence in India. Smokeless tobacco users (N = 237) at the All India Institute of Medical Sciences were randomized to placebo or varenicline. Abstinence was defined as cotinine-verified seven-day point prevalence cessation at end of treatment (EOT). General Linear Model repeated measures assessed the effects of treatment condition, time, abstinence state, and interaction effects on changes in craving, withdrawal, positive (PA) and negative affect (NA) from baseline to EOT. All participants showed a significant reduction in withdrawal ($p < .001$), total craving ($p < .001$), positive reinforcement (PR) craving ($p < .001$), and NA ($p = .02$), and an increase in PA ($p = .04$) from baseline to EOT. However, there were no differences between placebo and varenicline participants in measures of withdrawal, craving, or affect from baseline to week 3 or at EOT. Significant interactions between time and abstinence state were found for total craving ($p = .008$), PR craving ($p < .001$), and withdrawal ($p = .001$), indicating

reductions in these processes among those abstinent vs. those still chewing smokeless tobacco. Additional research is needed concerning the effects of varenicline on craving, withdrawal, and affect among smokeless tobacco users.

53: Jhanjee S, Pant S, Girdhar NK, Sethi H, Gunasekaran Rengaswamy R, Jain R, Sarangi J. Opioid substitution treatment in Tihar prisons, India: Process of implementation. Int J Drug Policy. 2015 Sep;26(9):890-1. doi: 10.1016/j.drugpo.2015.05.016. Epub 2015 Jun 6. PubMed PMID: 26123894.

54: Jimenez-Heffernan A, Ellmann A, Sado H, HuiÄ‡ D, Bal C, Parameswaran R, Giammarile F, Pruzzo R, Kostadinova I, Vorster M, Almeida P, Santiago J, Gambhir S, Sergieva S, Calderon A, Young GO, Valdes-Olmos R, Zaknun J, Magboo VP, Pascual TN. Results of a Prospective Multicenter International Atomic Energy Agency Sentinel Node Trial on the Value of SPECT/CT Over Planar Imaging in Various Malignancies. J Nucl Med. 2015 Sep;56(9):1338-44. doi: 10.2967/jnumed.114.153643. Epub 2015 Jul 30. PubMed PMID: 26229148.

We aimed to assess the additional value of SPECT/CT over planar lymphoscintigraphy (PI) in sentinel node (SN) detection in malignancies with different lymphatic drainage such as breast cancer, melanoma, and pelvic tumors.METHODS: From 2010 to 2013, 1,508 patients were recruited in a multicenter study: 1,182 breast cancer, 262 melanoma, and 64 pelvic malignancies (prostate, cervix, penis, vulva). PI was followed by SPECT/CT 1-3 h after injection of (99m)Tc-colloid particles. Surgery was performed the same or next day. RESULTS: Significantly more SNs were detected by SPECT/CT for breast cancer (2,165 vs. 1,892), melanoma (602 vs. 532), and pelvic cancer (195 vs. 138), all P < 0.001. The drainage basin mismatch between PI and SPECT/CT was 16.5% for breast cancer, 11.1% for melanoma, and 51.6% for pelvic cancers. Surgical adjustment was 17% for breast cancer, 37% for melanoma, and 65.6% for pelvic cancer. CONCLUSION: SPECT/CT detected more SNs and changed the drainage territory, leading to surgical adjustments in a considerable number of patients in all malignancies studied but especially in the pelvic cancer group because of this group's deep lymphatic drainage. We recommend SPECT/CT in all breast cancer patients with no SN visualized on PI, all patients with melanoma of the head and neck or trunk, all patients with pelvic malignancies, and those breast cancer and melanoma patients with unexpected drainage on PI.

55: Julka PK, Sharma DN, Mallick S, Gandhi AK, Joshi NP, Haresh KP, Gupta S, Rath GK. Outcomes of thymoma treated with multimodality approach: a tertiary cancer center experience of 71 patients. Tumori. 2015 Sep 19;0(0):0. doi: 10.5301/tj.5000429. [Epub ahead of print] PubMed PMID: 26391761.

AIMS: To explore the demographics and clinical outcome of patients with thymoma treated with a multimodality approach at our institute.
METHODS: A total of 71 patients with thymoma (Masaoka stage II-IV and WHO subtype AB-B3) treated from 1999-2013 were included in this retrospective analysis. Age, stage, WHO subtypes, details of surgery, radiotherapy, and chemotherapy were noted. Progression-free survival (PFS) was estimated using Kaplan-Meier method and SPSS (version 21.0) was used for statistical analysis.
RESULTS: Male:female ratio was 56:15 with median age at presentation of 41 years. Stage-wise distribution was 6:46:19 for stage II, stage III, and stage IV, respectively. A total of 31 patients (44%) had associated myasthenia gravis and 3 had pure red cell aplasia. A total of 57 patients (80%) underwent radical thymectomy and all of these patients received adjuvant radiotherapy. A total of 15 patients and 7 patients received adjuvant chemotherapy and neoadjuvant chemotherapy, respectively. At median follow-up of 19.3 months (range 7.9-72.3 months), 2-year and 3-year PFS rate for the entire cohort was 78.3% and 57.1%, respectively. On univariate analysis, surgery (hazard ratio [HR] 3.881; 95% confidence interval [CI] 1.784-19.220; p = 0.006) and stage (HR 5.457; 95% CI

1.567-18.996; p = 0.0001) were significant prognostic factors and association with myasthenia gravis (HR 0.404; 95% CI 0.151-1.078; p = 0.078) trended towards better PFS. Stage retained its prognostic significance (HR 5.501; 95% CI 2.076-14.573; p = 0.0006) on multivariate analysis.
CONCLUSIONS: Multimodality management of locally advanced thymoma yields decent survival outcomes. Masaoka stage is an independent prognostic factor for survival and radical surgery should be contemplated in all cases of locoregionally limited thymoma.

56: Jyotsna VP. Role of bilateral adrenalectomy in adrenocorticotropic hormone-dependent Cushing's syndrome. Indian J Endocrinol Metab. 2015 Sep-Oct;19(5):537-40. doi: 10.4103/2230-8210.163103. PubMed PMID: 26425460; PubMed Central PMCID: PMC4566331.

57: Kabra SK, Bush A. Editorial: Old Problems and New Solutions in Pediatric Pulmonology. Indian J Pediatr. 2015 Sep;82(9):825-6. doi: 10.1007/s12098-015-1826-z. Epub 2015 Jul 25. PubMed PMID: 26204978.

58: Kakkar A, Jain D, Khanna P, Deo SS, Sarkar C. Sarcomatoid carcinoma of lung - A case report and review of epidermal growth factor receptor mutation status. Lung India. 2015 Sep-Oct;32(5):533-5. doi: 10.4103/0970-2113.164170. PubMed PMID: 26628781; PubMed Central PMCID: PMC4587021.

59: Kakkar A, Sharma MC, Uppal M, Chumber S. Tubulocystic renal cell carcinoma: Report of a rare case. Can Urol Assoc J. 2015 Sep-Oct;9(9-10):E654-7. doi: 10.5489/cuaj.2935. Epub 2015 Sep 9. PubMed PMID: 26425234; PubMed Central PMCID: PMC4581938.

Cystic neoplasms of the kidney are rare, and present a unique diagnostic challenge. We report the case of an elderly male who presented with a large cystic neoplasm, which was a diagnostic dilemma clinically and radiologically. Histopathological examination showed a tumour composed of variably sized tubules lined by atypical cells having large round nuclei with prominent nucleoli. Hobnailing was seen at places. Tumour cells were immunopositive for pancytokeratin, vimentin, CD10, CK19 and AMACR, confirming a diagnosis of tubulocystic renal cell carcinoma (TC-RCC).

60: Kalra S, Aamir AH, Raza A, Das AK, Azad Khan AK, Shrestha D, Qureshi MF, Md Fariduddin, Pathan MF, Jawad F, Bhattarai J, Tandon N, Somasundaram N, Katulanda P, Sahay R, Dhungel S, Bajaj S, Chowdhury S, Ghosh S, Madhu SV, Ahmed T, Bulughapitiya U. Place of sulfonylureas in the management of type 2 diabetes mellitus in South Asia: A consensus statement. Indian J Endocrinol Metab. 2015 Sep-Oct;19(5):577-96. doi: 10.4103/2230-8210.163171. Review. PubMed PMID: 26425465; PubMed Central PMCID: PMC4566336.

Since their introduction in clinical practice in the 1950's, Sulfonylureas (SUs) have remained the main-stay of pharmacotherapy in the management of type 2 diabetes. Despite their well-established benefits, their place in therapy is inappropriately being overshadowed by newer therapies. Many of the clinical issues associated with the use of SUs are agent-specific, and do not pertain to the class as such. Modern SUs (glimepiride, gliclazide MR) are backed by a large body of evidence, experience, and most importantly, outcome data, which supports their role in managing patients with diabetes. Person-centred care, i.e., careful choice of SU, appropriate dosage, timing of administration, and adequate patient counseling, will ensure that deserving patients are not deprived of the advantages of this well-established class of anti-diabetic agents. Considering their efficacy, safety, pleiotropic benefits, and low cost of therapy, SUs should be considered as recommended therapy for the treatment of diabetes in South Asia. This initiative by SAFES aims to encourage rational, safe and smart prescription

of SUs, and includes appropriate medication counseling.

61: Kalra S, Gupta Y. Number-Based Approach to Insulin Taxonomy. Diabetes Ther. 2015 Dec;6(4):469-479. Epub 2015 Sep 9. PubMed PMID: 26350081; PubMed Central PMCID: PMC4674470.

This article describes a number-based system for the classification of insulin regimes. It utilizes a patient-centered variable (number of injections per day) and pharmacokinetic/dynamic characteristics to craft a taxonomic system that is able to incorporate all available insulin preparations and coformulations. This framework of systematics is robust enough to include various molecules that have been recently developed. It serves to enhance understanding of the subject, and facilitates the practical or clinical usage of theoretical knowledge. We propose that number-based insulin taxonomic models should be used in clinical guidelines and recommendations rather than restricting ourselves to pharmaceutical-based classifications. PubMed articles including both review articles and clinical trials published since the year 1990 were searched, to gather evidence and information on the various types of insulins available, and how they can be used, based on the number or frequency of injections prescribed per day.

62: Kandwal P, Vijayaraghavan G, Goswami A, Jayaswal A. Back Pain in Children-How Sinister? Indian J Pediatr. 2015 Sep 28. [Epub ahead of print] PubMed PMID: 26411731.

Incidence of back pain among children and adolescents is gradually increasing. Children undergo extensive diagnostic workup that ultimately results in a nonconfirmative diagnosis. A good history and clinical examination can, to a large extent help differentiate non-specific from organic causes of backache. Diagnostic workup may be initiated if symptoms are severe and/or persistant. The authors review some of the common causes of back pain in pediatric population, clinical presentations, and the relevant investigations along with their management.

63: Kapil U, Pandey RM, Sareen N, Khenduja P, Bhadoria AS. Iodine nutritional status in Himachal Pradesh state, India. Indian J Endocrinol Metab. 2015 Sep-Oct;19(5):602-7. doi: 10.4103/2230-8210.163173. PubMed PMID: 26425467; PubMed Central PMCID: PMC4566338.

INTRODUCTION: Iodine deficiency (ID) is the preventable causes of mental retardation worldwide. Himachal Pradesh (HP) state is a known endemic region to ID.
OBJECTIVE: the objective was to assess the current status of iodine nutrition in a population of HP, India.
METHODOLOGY: There are three regions in HP namely: Kangra, Mandi, and Shimla. In each region, one district was selected namely: Kangra, Kullu, and Solan. In each district, 30 clusters were identified by utilizing population proportional-to-size cluster sampling methodology. A total of 5748 school-age children (SAC) (Kangra; 1864, Kullu; 1986, Solan: 1898), 1711 pregnant mothers (PMs) (Kangra; 647, Kullu; 551, Solan: 513), and 1934 neonates (Kangra; 613, Kullu; 638, Solan: 683), were included in study. Clinical examination of thyroid of each child and PM was conducted. Casual urine samples were collected from children and PMs. Cord blood samples were collected for estimation of thyroid stimulating hormone (TSH) among neonates.
RESULTS: In SAC, total goiter rate (TGR) was 15.8% (Kangra), 23.4% (Kullu), and 15.4% (Solan). Median urinary iodine concentration (UIC) level was 200 µg/l (Kangra), 175 µg/l (Kullu), and 62.5 µg/l (Solan). In PMs, TGR was 42.2% (Kangra), 42.0% (Kullu), and 19.9% (Solan). Median UIC level was 200 µg/l (Kangra), 149 µg/l (Kullu), and 130 µg/l (Solan). In Neonates, TSH levels of > 5 mIU/L were found in 73.4 (Kangra), 79.8 (Kullu), and 63.2 (Solan) percent of neonates.
CONCLUSION: As per, UIC level (<100 µg/l) in SAC, ID was found in district Solan. In Kullu and Solan districts, there were ID (UIC level < 150 µg/l) among PMs. TSH

levels indicated ID in all districts surveyed.

64: Kaur M, Saxena R, Singh D, Behari M, Sharma P, Menon V. Correlation Between Structural and Functional Retinal Changes in Parkinson Disease. J Neuroophthalmol. 2015 Sep;35(3):254-8. doi: 10.1097/WNO.0000000000000240. PubMed PMID: 25807477.

BACKGROUND: To evaluate structural changes in the retina and correlate those with visual function measurements in patients with Parkinson disease (PD).
METHODS: A cross-sectional comparative study of 20 patients with PD and 20 age-matched healthy controls was conducted. Visual acuity, color vision, contrast sensitivity, visual fields, pattern visual-evoked response (VER), and multifocal electroretinogram were recorded to determine functional change, whereas structural changes were evaluated with retinal nerve fiber layer (RNFL) thickness, macular thickness, macular volume, and ganglion cell-inner plexiform layer complex (GCL-IPL) thickness using spectral domain ocular coherence tomography (SD-OCT).
RESULTS: PD patients ranged from Stage 1-3, with median Stage 2 (Hoehn and Yahr Classification) with mean Unified Parkinson Disease Rating Scale III score of 19 ± 10.42, and average disease duration of 5.8 ± 2.78 years. Visual acuity, color vision, and visual fields were unaffected but contrast sensitivity was significantly worse than controls ($P < 0.001$). Multifocal electroretinogram values in the central 2° field revealed decreased foveal electrical activity, with increased pattern VER amplitude and latency. Significant RNFL thinning was observed in the average RNFL ($P = 0.033$), superior ($P = 0.018$), and temporal ($P = 0.036$) quadrants. Significant ganglion cell layer loss was captured on SD-OCT with average, minimum GCL-IPL, and all 6 sectors showing thinning ($P \leq 0.003$). The functional changes correlated significantly with structural changes, disease duration, and severity. There was no correlation between structural changes in the retina and disease duration or severity.
CONCLUSIONS: Subclinical visual dysfunction was observed in patients with PD with good structural-functional correlation. GCL-IPL thinning may be a more reliable parameter than RNFL thickness for structural alterations of the retina in patients with PD.

65: Khan I, Zakaria MK, Kumar M, Mani P, Chattopadhyay P, Sarkar DP, Sinha S. Erratum to: A novel placental like alkaline phosphatase promoter driven transcriptional silencing combined with single chain variable fragment antibody based virosomal delivery for neoplastic cell targeting. J Transl Med. 2015 Sep 14;13:300. doi: 10.1186/s12967-015-0643-5. PubMed PMID: 26370128; PubMed Central PMCID: PMC4570628.

66: Khokhar SK, Midha N, Patil B, Nayak B, Simakurthy S. A novel technique to release sticking haptic of a single-piece hydrophobic acrylic IOL using irrigation-aspiration probe. Eur J Ophthalmol. 2015 Sep 14:0. doi: 10.5301/ejo.5000669. [Epub ahead of print] PubMed PMID: 26391168.

PURPOSE: To describe a novel technique to release sticking haptic of a single-piece hydrophobic acrylic intraocular lens (IOL) using irrigation-aspiration (I/A) probe.
METHODS: In our technique, the I/A probe is introduced into the anterior chamber on Visco mode. Using the aspiration port of the I/A probe, the sticking haptic is held at its tip and suction force is built up until occlusion is noted. Then the haptic is nudged towards the center of the IOL along its curve. After the haptic is free from optic, the suction is released.
RESULTS: Several techniques have been described to release the sticking haptic such as squeezing the haptic at the site where it sticks to the IOL or using Sinskey hook for releasing the adhesion. These techniques require extra manipulation of the IOL by introduction of surgical instruments. In our technique, we used the I/A probe itself for separating the sticky haptic successfully.

CONCLUSIONS: This technique allows separation of sticking haptic without any extra instrumentation, thus reducing intraocular maneuvering and total surgery time.

67: Krishnan S, Dhillon PK, Bhadelia A, Schurmann A, Basu P, Bhatla N, Birur P, Colaco R, Dey S, Grover S, Gupta H, Gupta R, Gupta V, Lewis MA, Mehrotra R, McMikel A, Mukherji A, Naik N, Nyblade L, Pati S, Pillai MR, Rajaraman P, Ramesh C, Rath GK, Reithinger R, Sankaranarayanan R, Selvam J, Shanmugam MS, Shridhar K, Siddiqi M, Squiers L, Subramanian S, Travasso SM, Verma Y, Vijayakumar M, Weiner BJ, Reddy KS, Knaul FM. Report from a symposium on catalyzing primary and secondary prevention of cancer in India. Cancer Causes Control. 2015 Nov;26(11):1671-84. doi: 10.1007/s10552-015-0637-x. Epub 2015 Sep 3. PubMed PMID: 26335262; PubMed Central PMCID: PMC4596898.

PURPOSE: Oral, breast, and cervical cancers are amenable to early detection and account for a third of India's cancer burden. We convened a symposium of diverse stakeholders to identify gaps in evidence, policy, and advocacy for the primary and secondary prevention of these cancers and recommendations to accelerate these efforts.
METHODS: Indian and global experts from government, academia, private sector (health care, media), donor organizations, and civil society (including cancer survivors and patient advocates) presented and discussed challenges and solutions related to strategic communication and implementation of prevention, early detection, and treatment linkages.
RESULTS: Innovative approaches to implementing and scaling up primary and secondary prevention were discussed using examples from India and elsewhere in the world. Participants also reflected on existing global guidelines and national cancer prevention policies and experiences.
CONCLUSIONS: Symposium participants proposed implementation-focused research, advocacy, and policy/program priorities to strengthen primary and secondary prevention efforts in India to address the burden of oral, breast, and cervical cancers and improve survival.

68: Kumar A, Sharma R, Garg A, Sharma BS. Contralateral Anterior Inter-hemispheric Transparaterminal Gyrus Approach for Thalamopeduncular Pilocytic Astrocytoma in an Adult: Technical Report. World Neurosurg. 2015 Sep 23. pii: S1878-8750(15)01184-5. doi: 10.1016/j.wneu.2015.09.021. [Epub ahead of print] PubMed PMID: 26409092.

BACKGROUND: Thalamopeduncular gliomas (TPGs) arise at the junction of thalamus and cerebral peduncle and constitute a subgroup of thalamic gliomas. These are surgically challenging lesions because of close proximity to important neural structures including corticospinal tracts (CSTs) & thalamus. Usually these tumours displace CSTs anterolaterally or reach upto lateral ventricular surface. Such tumours can be removed by either temporal or transventricular approaches. However, if CSTs cover the entire lateral surface of tumor and tumor does not reach upto ventricular surface, then both temporal and transventricular approaches cannot be used as the trajectories of both these approaches would pass through normal eloquent structures (CSTs/thalamus) and consequently there will be a very high risk of developing postoperative neurological deficits.
METHODS & RESULTS: We encountered a case of TPG in a 50 year old woman. The patient presented with contralateral hemiparesis. Radiological evaluation revealed right TPG that displaced CSTs laterally and was covered by normal thalamus superiorly. Some CST fibres passed through the tumor. As both lateral and superior surfaces were covered by eloquent structures, we used anterior interhemispheric trans-paraterminal gyrus (AIPG) approach to successfully access the tumor and achieved subtotal excision. Patient had transient neurological deterioration postoperatively that recovered to preoperative level within two weeks.
CONCLUSION: This approach has not been described previously for accessing brainstem lesions. It can be used to access tumours of cerebral peduncle that displace CSTs laterally and are covered by normal thalamus superiorly. This

approach adds to the armamentarium of neurosurgeons for dealing with cerebral peduncular lesions.

69: Kumar N, Yadav C, Raj R, Yadav S. Fracture of the polyethylene tibial post in a posterior stabilized knee prosthesis:Â A case report and review of literature. J Orthop. 2015 Feb 11;12(3):160-3. doi: 10.1016/j.jor.2015.01.002. eCollection 2015 Sep. Review. PubMed PMID: 26236121; PubMed Central PMCID: PMC4501518.

We report a case of fracture of tibial polyethylene post fracture from base in a 56 year old lady 10 years from posterior stabilized total knee arthroplasty following trivial trauma. There have been signs of wear at the base especially anteriorly. After revision of tibial polyethylene component patient developed complete relief of symptom.

70: Kumar N, Kaur G, Kanga U, Mehra NK, Neolia SC, Tandon N, Zucman SC. CTLA4+49G allele associates with early onset of type 1 diabetes in North Indians. Int J Immunogenet. 2015 Dec;42(6):445-52. doi: 10.1111/iji.12233. Epub 2015 Sep 18. PubMed PMID: 26385826.

Type 1 diabetes (T1D) is a complex autoimmune disease with strong genetic influence. In this study, we investigated +49A/G SNP (rs 231775) in exon 1 of cytotoxic T-lymphocyte-associated antigen 4 (CTLA4) by PCR-RFLP and its influence as a risk factor for the disease in the North Indian population. This polymorphism at codon 17 results in an amino acid substitution (Thr/Ala) in the leader peptide of the molecule. The study included 232 patients with T1D (age at onset of disease (AOD): 0.5-37 years) and 305 ethnically matched healthy controls. The DNA obtained from these 537 individuals was amplified using a set of specific primers followed by restriction enzyme digestion with Fnu4HI. The +49G allele as well as its homozygous genotype G/G was observed to be significantly higher in patients as compared to the healthy controls {(37.3% vs. 25.6%, P = 4.96E(-05) , OR = 1.73; 95%CI = 1.33-2.25) (15.52% vs. 6.6%, P = 0.001, OR = 2.62; 95% CI = 1.48-4.63) respectively}. The frequency of G/G genotype was significantly higher in patients with early age at onset of disease (AOD:<12 years) as compared to that in the late-onset patients with AOD: ≥12 years (21.1% vs. 10.6%, P = 0.042, OR = 2.26; 95% CI = 1.09-4.67) as well as to that in the healthy controls (21.1% vs. 6.6%, P = 0.00004, OR = 3.8; 95% CI = 2.01-7.2). Further analysis revealed that the median AOD significantly reduced (P = 0.049) from 14 years in patients with A/A genotype to 11 and 10 years in those with A/G and G/G genotypes, respectively. These results suggest that CTLA4+49G allele, particularly in homozygous G/G condition, associates with early onset of T1D.

71: Kumar P, Mehta P, Ismail J, Agarwala S, Jana M, Lodha R, Kabra SK. Brocho-biliary fistula: A rare complication after ruptured liver abscess in a 3Â½ year old child. Lung India. 2015 Sep-Oct;32(5):489-91. doi: 10.4103/0970-2113.164157. PubMed PMID: 26628766; PubMed Central PMCID: PMC4587006.

Bronchobiliary fistula (BBF) is a rare condition, defined by the presence of abnormal communication between biliary tract and bronchial tree. We describe a 3½-year-old child who developed BBF after rupture of liver abscess. She underwent exploratory laparotomy and peritoneal wash for ruptured liver abscess. Seven months later she presented with fever and cough with yellow-colored expectoration (bilioptysis). An abnormal communication between right branch of the hepatic duct and a branch of right main bronchus was identified. Child underwent right lateral thoracotomy and right lower lobectomy with surgical excision of sinus tract. On follow-up child was asymptomatic and doing well.

72: Kumar R. Esthesioneuroblastoma: Multimodal management and review of literature. World J Clin Cases. 2015 Sep 16;3(9):774-8. doi: 10.12998/wjcc.v3.i9.774. Review. PubMed PMID: 26380824; PubMed Central PMCID: PMC4568526.

Esthesioneuroblastoma (ENB) is a rare malignant neoplasm arising from the olfactory neuroepithelium. ENB constitutes only 3% of all malignant intranasal neoplasm. Because of the rarity, the number of patients of ENB treated in individual departments is small. Most of these patients presents in locally advanced stages and require multimodality treatment in form of surgery, chemotherapy and radiotherapy. Multimodality approach with a risk-adapted strategy is required to achieve good control rates while minimizing treatment related toxicity.

73: Kumar R, Prasad L. Paradoxical Enlargement of Giant Intracranial Tuberculoma Mimicking Glioma. Indian J Pediatr. 2015 Sep;82(9):861-2. doi: 10.1007/s12098-015-1736-0. Epub 2015 Mar 6. PubMed PMID: 25740783.

74: Kumar R, Gupta YK, Singh S, Arunraja S. Cissus quadrangularis attenuates the adjuvant induced arthritis by down regulating pro-inflammatory cytokine and inhibiting angiogenesis. J Ethnopharmacol. 2015 Dec 4;175:346-55. doi: 10.1016/j.jep.2015.08.058. Epub 2015 Sep 3. PubMed PMID: 26342521.

ETHNOPHARMACOLOGICAL RELEVANCE: In traditional medicine, Cissus quadrangularis has been used as a chief ingredient of many formulation for the treatment of inflammatory and bone disorders..
OBJECTIVE: The study was carried out to investigate the anti-arthritic activity of C. quadrangularis hydroalcoholic extract (CQHE) and to explore the plausible mechanism of action.
MATERIALS AND METHODS: Arthritis was induced by sub plantar administration of formaldehyde (2% v/v) and 0.1ml of complete Freund's adjuvant. Joint swelling was measured on days 8, 9 and 10 in formaldehyde-induced arthritis and on 3, 7, 14 and 21 days in adjuvant induced arthritis (AIA) respectively. Serum and ankle joints of AIA rats were used for estimation of serum TNF-α level, oxidative stress markers and synovial expression of proinflammatory cytokines/cytokine receptor (IL-1β, IL-6, TNF-R1), angiogenesis marker (VEGF) and matrix metalloproteinases (MMP-3& 9). An acute and 28-day oral toxicity was carried out to evaluate the safety of the test drug.
RESULTS: CQHE produced a dose dependent inhibition of joint swelling in both formaldehyde-induced and adjuvant induced arthritis. CQHE treatment also reduced serum TNF-α level, oxidative stress and synovial expression of inflammatory and angiogenesis marker. In sub acute toxicity study of CQHE, chronic administration of CQHE did not produce any physiological and pathological changes as compared to normal rats.
CONCLUSION: Our study demonstrated the anti-arthritic potential of C. quadrangularis and it validates its traditional use for the treatment of arthritis and other inflammatory disorders.

75: Kumar S, Mehrotra D, Mishra S, Goel MM, Kumar S, Mathur P, Choudhary K, Pandey CM. Epidemiology of substance abuse in the population of Lucknow. J Oral Biol Craniofac Res. 2015 Sep-Dec;5(3):128-33. doi: 10.1016/j.jobcr.2015.08.010. Epub 2015 Sep 19. PubMed PMID: 26587377; PubMed Central PMCID: PMC4623888.

BACKGROUND: Habit of consuming tobacco and areca-nut containing substances is in vogue in Lucknow as a part of the Nawabi culture. Hence, this study was planned with an aim to generate evidence for the prevalence of habits of substance abuse by the population of Lucknow and know their socio-demographic profile.
METHODOLOGY: Population based cross-sectional study was conducted by organizing oral health check-up camps in randomly selected rural and urban parts of Lucknow,

the capital city of Uttar Pradesh, which is the most populated state of India. Patients were enrolled after obtaining informed consent. A structured and validated questionnaire based tool was administered by a team of trained dental surgeons for collecting the desired information through interview and their oral cavity examination.
RESULTS: A total of 3437 subjects were enrolled in the study, out of which 82.9% were male and 17.1% were female. Among them, 64.6% subjects belonged to rural domiciliary status, by religion, 80.6% and 18.5% of the subjects were Hindu and Muslims respectively. The most prevalent habit was consumption of smokeless tobacco substances, of which pan masala with tobacco (gutkha) was the most prevalent substance of abuse.
CONCLUSION: Smokeless tobacco consumption was highly prevalent in the population surveyed. It is recommended to formulate and implement strong preventive strategies. Also, steps should be taken to increase the awareness of the harmful consequences of these habits.

76: Kumar V, Garg B, Malhotra R. Total hip replacement for arthritis following tuberculosis of hip. World J Orthop. 2015 Sep 18;6(8):636-40. doi: 10.5312/wjo.v6.i8.636. eCollection 2015 Sep 18. PubMed PMID: 26396940; PubMed Central PMCID: PMC4573508.

AIM: To present the results of total hip arthroplasty (THA) for post tubercular arthritis of the hip joint.
METHODS: Sixty-five patients (45 male, 20 female) with previously treated tuberculosis of the hip joint underwent cementless THA for post tubercular arthritis. The average age at the time of THA was 48 years (range 29 to 65 years). Erythrocyte sedimentation rate, C reactive protein, chest X-ray and contrast enhanced magnetic resonance imaging were done preoperatively to confirm resolution of the disease and to rule out any residual disease. Intra-operative samples were taken for microbiological examination, polymerase chain reaction (PCR) and histological examination. Patients were started on anti-tubercular drugs one week before the operation and continued for 6 mo post operatively. The patients were followed up clinically using the Harris hip score as well as radiologically for any loosening of the implants, osteolysis and any recurrence of tuberculosis. Any complications especially the recurrence of the infection was also recorded.
RESULTS: The mean interval from completion of antitubercular therapy for tuberculosis to surgery was 4.2 years (range, 2-6 years). Preoperatively, 17 patients had ankylosis whereas 48 patients had functional but painful range of motion. The mean surgical time was 97 min (range, 65-125) whereas the mean blood loss was 600 mL (range, 400-900 mL). The average follow up was 8.3 years (range 6-11 years). The average Harris Hip score improved from 27 preoperatively to 91 at the final follow up. Seventeen patients had acetabular protrusion which was managed with impaction grafting and cementless acetabular cup. The bone graft had consolidated in all these 17 patients at the follow up. Two patients developed discharging sinuses at 9 and 11 mo postoperatively respectively. The discharge tested positive for tuberculosis on the PCR. Both these patients were put on antitubercular therapy for another year. Both of them recovered and had no evidence of any loosening or osteolysis on X-rays. There were no other complications recorded.
CONCLUSION: Total hip replacement restores good function to patients suffering from post tubercular arthritis of the hip.

77: Kundu R, Dehran M, Chandralekha, Trikha A, Nag HL. Safety and analgesic efficacy of intravenous dexmedetomidine in arthroscopic knee surgery. Anesth Essays Res. 2015 Sep-Dec;9(3):391-6. doi: 10.4103/0259-1162.161820. PubMed PMID: 26712980; PubMed Central PMCID: PMC4683487.

CONTEXT: Dexmedetomidine, a highly selective alpha-2 agonist has been used as an adjuvant analgesic in vascular, bariatric, and thoracic surgery. We assessed the efficacy of intravenous dexmedetomidine as an analgesic adjunct to local anesthetic infiltration for control of postoperative pain in arthroscopic knee

surgery.
SETTINGS AND DESIGN: This was a randomized control study performed in a Tertiary Care Hospital.
MATERIALS AND METHODS: Forty-five adult patients scheduled for anterior/posterior cruciate ligament reconstruction were randomized into three groups. Group B (bupivacaine group) received bupivacaine intraarticularly and normal saline by the intravenous route. Group D (dexmedetomidine group) received Intravenous dexmedetomidine and normal saline intraarticularly. Group BD (bupivacaine + dexmedetomidine group) received a combination of intravenous dexmedetomidine and intraarticular bupivacaine. Patient's cardiorespiratory parameters, time to first rescue, total rescue analgesic consumption in first 24 h, visual analog scale for pain were assessed.
STATISTICAL ANALYSIS: The data were analyzed using analysis of variance and Chi-square test.
RESULTS: The time to first request for rescue analgesia was significantly prolonged in Group D and Group BD patients ($P < 0.05$) compared to Group B. Total rescue analgesic consumption was least in Group BD. Group D and Group BD patients had lower heart rate and systolic and diastolic blood pressure values.
CONCLUSION: Intravenous dexmedetomidine in combination with intraarticular bupivacaine decreased perioperative analgesic requirement in patients undergoing arthroscopic knee surgery. However, monitoring and vigilance are essential if dexmedetomidine is used as part of a multimodal analgesic regimen in view of its hemodynamic side effects.

78: Lodha R. Nutritional Rehabilitation of Children with Severe Acute Malnutrition. Indian J Pediatr. 2016 Jan;83(1):1-2. doi: 10.1007/s12098-015-1875-3. Epub 2015 Sep 8. PubMed PMID: 26346945.

79: Madan K, Nattusamy L, Jain D, Mohan A, Guleria R. Vocal cord palsy caused by mediastinal tuberculosis. Trop Doct. 2015 Sep 22. pii: 0049475515605683. [Epub ahead of print] PubMed PMID: 26395269.

80: Madan K, Venuthurimilli A, Mohan A, Guleria R. Oesophageal stent-associated esophagorespiratory fistula. BMJ Case Rep. 2015 Sep 14;2015. pii: bcr2015211880. doi: 10.1136/bcr-2015-211880. PubMed PMID: 26370633.

81: Mahalangikar R, Kumar A, Sharma BS. Transorbital Penetrating Intracranial Injury with an Umbrella Wire Causing Cavernous Internal Carotid Artery Injury and Thrombosis. World Neurosurg. 2015 Sep 25. pii: S1878-8750(15)01196-1. doi: 10.1016/j.wneu.2015.09.033. [Epub ahead of print] PubMed PMID: 26407931.

BACKGROUND: Transorbital penetrating intracranial injuries, though rare, can have serious consequences. Intracranial penetration can be present even if orbital trauma is trivial.
CASE DESCRIPTION: We report an unusual case of transorbital penetrating intracranial injury with umbrella wire, sustained while opening an umbrella, leading to internal carotid artery injury and thrombosis. The patient sustained only ipsilateral third nerve palsy that completely recovered during followup.
CONCLUSION: Trivial orbital injuries can be associated with significant intracranial injury in a neurologically intact patient. This case emphasizes the potentially injury-prone opening mechanism of conventional umbrellas. A high index of suspicion is important while evaluating such patients.

82: Maiwall R, Kumar S, Chandel SS, Kumar G, Rastogi A, Bihari C, Sharma MK, Thakur B, Jamwal K, Nayak S, Mathur RP, Sarin SK. AKI in patients with acute on chronic liver failure is different from acute decompensation of cirrhosis. Hepatol Int. 2015 Oct;9(4):627-39. doi: 10.1007/s12072-015-9653-x. Epub 2015 Sep

2. PubMed PMID: 26329121.

BACKGROUND AND AIMS: The current definitions of acute kidney injury (AKI) including HRS have been derived from patients with decompensated cirrhosis. No studies have carefully addressed AKI in patients with acute on chronic liver failure (ACLF). We evaluated the prevalence, spectrum, natural history and mortality of AKI at admission and new-onset AKI in hospitalized patients with ACLF and compared the results with patients with acute decompensation of cirrhosis (ADC).
PATIENTS AND METHODS: Consecutive patients with ACLF (n = 382) and ADC (n = 451) were prospectively studied. Serial renal and liver functions were recorded and correlated with the disease course and outcome.
RESULTS: AKI at admission and new onset AKI in the hospital were not different in patients with ACLF and ADC ($p > 0.05$). However, a significant difference in the spectrum of AKI was noted; functional volume-responsive AKI was more common ($p < 0.05$) in ADC, while patients with ACLF more frequently had the structural form of AKI ($p < 0.05$). Moreover, patients with ADC had significantly less AKI progression ($p < 0.05$) and prolonged duration ($p < 0.05$), a lower requirement of RRT ($p < 0.05$) and also less AKI resolution ($p < 0.05$) compared to ACLF patients. Patients with ACLF (versus ADC) had a significantly higher mortality on multivariate analysis.
CONCLUSIONS: The kidneys are differentially affected in patients with cirrhosis with or without liver failure. Patients with ACLF with AKI have more structural AKI, greater potential for reversibility despite higher progression as well as higher mortality compared to patients with ADC. Prevention and early detection of AKI should be considered in patients with ACLF.

83: Makharia GK, Ghoshal UC, Ramakrishna BS, Agnihotri A, Ahuja V, Chowdhury SD, Gupta SD, Mechenro J, Mishra A, Mishra A, Pathak MK, Pandey RM, Sharma R, Sharma SK. Intermittent Directly Observed Therapy for Abdominal Tuberculosis: A Multicenter Randomized Controlled Trial Comparing 6 Months Versus 9 Months of Therapy. Clin Infect Dis. 2015 Sep 1;61(5):750-7. doi: 10.1093/cid/civ376. Epub 2015 May 12. PubMed PMID: 25969531.

BACKGROUND: The duration of treatment of gastrointestinal tuberculosis continues to be a matter of debate. The World Health Organization advocates intermittent directly observed short-course therapy (DOTs), but there is a lack of data of its efficacy in abdominal tuberculosis. We therefore conducted a multicenter randomized controlled trial to compare 6 months and 9 months of antituberculosis therapy using DOTs.
METHODS: One hundred ninety-seven patients with abdominal tuberculosis (gastrointestinal, 154; peritoneal, 40; mixed, 3) were randomized to receive 6 months (n = 104) or 9 months (n = 93) of antituberculosis therapy using intermittent directly observed therapy. Patients were followed up 1 year after completion of treatment to assess recurrence. Patients were evaluated for primary endpoint (complete clinical response, partial response, and no response) and secondary endpoint (recurrence of the disease at the end of 1 year of follow-up).
RESULTS: Baseline characteristics were similar between the 2 randomized groups. There was no difference between the 6-month group and 9-month group in the complete clinical response rate on per-protocol analysis (91.5% vs 90.8%; P = .88) or intent-to-treat analysis (75% vs 75.8%; P = .89). Only 1 patient in the 9-month group and no patients in the 6-month group had recurrence of disease. Side effects occurred in 21 (21.3%) and 16 (18.2%) patients in the 6-month and 9-month groups, respectively.
CONCLUSIONS: There was no difference in efficacy of antituberculosis therapy delivered for either 6 months or 9 months in either gastrointestinal or peritoneal tuberculosis, confirming the efficacy of intermittent directly observed therapy.
CLINICAL TRIALS REGISTRATION: NCT01124929.

please e-mail: journals.permissions@oup.com.

84: Mallick S, Breta M, Gupta SD, Dinda AK, Mohanty BK, Singh MK. Angiogenesis, Proliferative Activity and DNA Ploidy in Oral Verrucous Carcinoma: A Comparative Study Including Verrucous Hyperplasia and Squamous Cell Carcinoma. Pathol Oncol Res. 2015 Sep;21(4):1249-57. doi: 10.1007/s12253-014-9856-9. Epub 2015 Jul 9. PubMed PMID: 26156885.

Verrucous carcinoma (VC) is a rare and distinct clinicopathologic variant of well-differentiated squamous cell carcinoma (SCC). This study aims to evaluate the histomorphology, proliferative activity, level of angiogenesis, and DNA ploidy of these pathological entities. This was a retrospective-prospective study of 18 cases of verrucous hyperplasia (VH), 41 cases of VC, and 44 cases of SCC. Immunohistochemical analysis for Ki-67 (MIB-1) and CD34 were performed. The tumor proliferative index, endothelial proliferative index and microvascular density were calculated. DNA ploidy was determined using image cytometry. The age range and gender ratio were similar in all three groups. The differences in MIB-1 labeling index ($p = 0.0001$), microvascular density ($p = 0.01$), and endothelial proliferative index ($p = 0.001$) between VC and SCC were found to be statistically significant. A non-significant increasing trend was observed in all of these parameters between VH and VC. On ploidy analysis, 100 % of SCC cases were aneuploid, compared to 39 % of VH and 86 % of VC cases. Our study demonstrates a significant difference in tumor proliferation, microvessel density, and ploidy between VC and SCC while increasing trend between VH and VC. These parameters, along with morphological findings, may be useful in differentiating these entities in small mucosal biopsies.

85: Mallick S, Das S, Benson R, Roshan V, Bhasker S. Outcome of primary orbital lymphoma treated with induction chemotherapy followed by conformal radiotherapy. J Egypt Natl Canc Inst. 2015 Sep;27(3):113-7. doi: 10.1016/j.jnci.2015.04.003. Epub 2015 Apr 29. PubMed PMID: 25935857.

PURPOSE: To analyze the clinical outcome of primary orbital lymphoma (POL) patients treated with a combined modality approach with local radiotherapy after induction chemotherapy.
METHODOLOGY: We retrospectively retrieved demographic, treatment and outcome data of patients treated for POL from 2000 to 2010. The charts were reviewed and the data were tabulated in a predesigned pro-forma.
RESULTS: 23 patients of POL were found evaluable. Median age was 55 years (range 24-70 years). Of 23 patients, 15 were male and 8 female, making the male:female ratio approximately 1.9:1. Patients were thoroughly evaluated and staged. All but one patient received multi agent chemotherapy. Radiotherapy was delivered for all cases. Radiation was delivered by 3DCRT technique. Median dose of radiation was 45Gy (range 20-45Gy). Median follow up was 26.8 months. None of the patients had any evidence of local failure or systemic progression.
CONCLUSION: A combined modality therapy with a combination of CHOP/COP based chemotherapy and moderate dose of radiotherapy imparts excellent long term local and systemic disease control.

86: Mandal A, Mukherjee A, Lakshmy R, Kabra SK, Lodha R. Dyslipidemia in HIV Infected Children Receiving Highly Active Antiretroviral Therapy. Indian J Pediatr. 2015 Sep 3. [Epub ahead of print] PubMed PMID: 26334860.

OBJECTIVE: To assess the prevalence of dyslipidemia and lipodystrophy in Indian children receiving non-nucleoside reverse transcriptase inhibitor (NNRTI) based highly active antiretroviral therapy (HAART) and to determine the associated risk factors for the same.
METHODS: The present cross-sectional study was conducted at a Pediatric Clinic of a tertiary care teaching center in India, from May 2011 through December 2012.

HIV infected children aged 5-15 y were enrolled if they did not have any severe disease or hospital admission within last 3 mo or receive any medications known to affect the lipid profile. Eighty-one children were on highly active antiretroviral therapy (HAART) for at least 6 mo and 16 were receiving no antiretroviral therapy (ART). Participants' sociodemographic, nutritional, clinical, and laboratory data were recorded in addition to anthropometry and evidence of lipodystrophy. Fasting lipid profile, apolipoprotein A1 and B levels were done for all the children.
RESULTS: Among the children on highly active antiretroviral therapy (HAART), 38.3 % had dyslipidemia and 80.2 % had lipodystrophy, while 25 % antiretroviral therapy (ART) naïve HIV infected children had dyslipidemia. No clinically significant risk factors could be identified that increased the risk of dyslipidemia or lipodystrophy in children on highly active antiretroviral therapy (HAART).
CONCLUSIONS: There is a high prevalence of dyslipidemia and lipodystrophy in Indian children with HIV infection with an imminent need to establish facilities for testing and treatment of these children for metabolic abnormalities.

87: Marwaha RK, Garg MK, Bhadra K, Tandon N. Bone mineral content has stronger association with lean mass than fat mass among Indian urban adolescents. Indian J Endocrinol Metab. 2015 Sep-Oct;19(5):608-15. doi: 10.4103/2230-8210.163174. PubMed PMID: 26425468; PubMed Central PMCID: PMC4566339.

INTRODUCTION: There are conflicting reports on the relationship of lean mass (LM) and fat mass (FM) with bone mineral content (BMC). Given the high prevalence of Vitamin D deficiency in India, we planned the study to evaluate the relationship between LM and FM with BMC in Indian children and adolescents. The objective of the study was to evaluate the relationship of BMC with LM and FM.
MATERIALS AND METHODS: Total and regional BMC, LM, and FM using dual energy X-ray absorptiometry and pubertal staging were assessed in 1403 children and adolescents (boys [B]: 826; girls [G]: 577). BMC index, BMC/LM and BMC/FM ratio, were calculated.
RESULTS: The age ranged from 5 to 18 years, with a mean age of 13.2 ± 2.7 years. BMC adjusted for height (BMC index and BMC/height ratio) was comparable in both genders. There was no difference in total BMC between genders in the prepubertal group but were higher in more advanced stages of pubertal maturation. The correlation of total as well as regional BMC was stronger for LM (B: Total BMC - 0.880, trunk - 0.715, leg - 0.894, arm - 0.891; G: Total BMC - 0.827, leg - 0.846, arm - 0.815 (all value indicate r (2), $P < 0.0001$ for all) when compared with FM (B: Total BMC - 0.776, trunk - 0.676, leg - 0.772, arm - 0.728; G: Total BMC - 0.781, leg - 0.741, arm - 0.689; all $P < 0.0001$) except at trunk BMC (LM - 0.682 vs. FM - 0.721; all $P < 0.0001$), even after controlling for age, height, pubertal stage, and biochemical parameters.
CONCLUSIONS: BMC had a stronger positive correlation with LM than FM.

88: Mascarenhas DD, Raina A, Aston CE, Sanghera DK. Genetic and Cultural Reconstruction of the Migration of an Ancient Lineage. Biomed Res Int. 2015;2015:651415. doi: 10.1155/2015/651415. Epub 2015 Sep 30. PubMed PMID: 26491681; PubMed Central PMCID: PMC4605215.

A rare R1a1 Y-haplogroup (Y-HG) L657 clade subtype designated as LPKSTR is found in most male members of a clan of "founder" families within the Goud Saraswat Brahmin community in Lotli town in Western India. TMRCA calculations using pairwise comparisons to control cohorts suggested a probable migration history distinct from the canonical narrative for medieval migration of orthodox Brahmin families to South India. Using Y-HG centroid analysis, chi-square analysis of TMRCA distributions and archeological find-spots, and discriminant function analysis we show that the parental Z93 L342.2 subclade in which LPKSTR occurs originated in West Asia and that LPKSTR individuals migrated toward the southeast by a Bolan Pass route distinct from the traditionally presumed route of Brahmin ingress into the Indian subcontinent. The proposed migration route is supported by archeological, toponymic, numismatic, linguistic, iconographic, and literary

data. Lastly, we present cultural metrics demonstrating that these LPKSTR lineages retained distinct family practices with respect to literacy, religious practice, and emigration not shared with orthodox Brahmins of canonical geographic origin within the same community, despite centuries of intermarriage. Long-term transmission of differentiated family practices within a patrilineal endogamous community has rarely been documented.

89: Mathew N, Khakha DC, Qureshi A, Sagar R, Khakha CC. Stress and Coping among Adolescents in Selected Schools in the Capital City of India. Indian J Pediatr. 2015 Sep;82(9):809-16. doi: 10.1007/s12098-015-1710-x. Epub 2015 Feb 19. PubMed PMID: 25689960.

OBJECTIVE: To find out various life stressors of adolescents, coping strategies adopted by them and the impact of stress on adolescent mental health.
METHODS: A descriptive, cross sectional study was conducted in the schools in south zone of Delhi, capital city of the country. Data was collected on 360 adolescents between the age group of 13-17 y on socio-demographic profile, Adolescent Life Event Stress Scale, Brief Cope and Youth Self Report for ages 11-18 y.
RESULTS: Stress related to uncontrollable events such as family events, relocation events, accident events, ambiguous events and controllable events such as sexual events, deviance events and autonomy events was significantly higher as compared to distressful events ($p < 0.0$) such as death of a pet, arguments with friends, appearing for exams, failure or low grades. Adolescent stress was significantly correlated with various demographic variables in the study. The most frequently used coping strategies by the adolescents were positive reframing, planning, active coping, and instrumental support. It has also been found that stress has a significant impact on adolescent mental health in the form of either internalizing problems such as anxiety, withdrawal and somatic problems or externalizing problems such as rule breaking and aggressive behaviors.
CONCLUSIONS: A significant correlation was found between most of the stressful life event domains and the syndrome subscale of the youth self report form which indicate that out of the total sample of 360 adolescents 150 were identified as having psycho-social morbidity, including 59 borderline cases and 91 high-risk cases. The study pointed out the need for mental health screening among the adolescents and also indicated the need for mental health inputs in educational institutions.

90: Mathur P, Khare A, Jain N, Verma P, Mathur V. Anesthetic considerations in a child with unrepaired D-transposition of great arteries undergoing noncardiac surgery. Anesth Essays Res. 2015 Sep-Dec;9(3):440-2. doi: 10.4103/0259-1162.158511. PubMed PMID: 26712994; PubMed Central PMCID: PMC4683492.

D-transposition of great arteries (D-TGA) is the most common cyanotic congenital heart disease diagnosed at birth. There is ventriculoarterial discordance leading to parallel circulation. The postnatal survival depends on intercirculatory mixing of oxygenated and deoxygenated blood at various levels through atrial septal defect, ventricular septal defect or patent ductus arteriosus. The anesthesiologist must have an understanding of concepts of shunting and other long-term consequences of transposition of great arteries (TGA) in order to tailor the anesthetic technique to optimize the hemodynamic variables and oxygenation in the perioperative period. The preoperative evaluation includes echocardiography to delineate the type of TGA, associated lesions and extent and direction of shunts. Oxygen saturation is influenced by the ratio of pulmonary vascular resistance (PVR) to systemic vascular resistance. Thus, care should be taken to avoid an increase in PVR which can lead to decreased pulmonary blood flow leading to hypoxia. We report a case of an 8-year-old child with unrepaired D-TGA, who presented to us for craniotomy for drainage of brain abscess.

91: Mishra S, Srivastava AK, Kumar H, Sharma BS. Reshaping the zygomatic complex:

A "small step" in frontotemporal craniotomy and a "big leap" in exposure. Neurol India. 2015 Sep-Oct;63(5):723-6. doi: 10.4103/0028-3886.166540. PubMed PMID: 26448232.

CONTEXT: Pterional or fronto-temporal craniotomy, developed by Prof. M. G. Yasargil, is among the most familiar skull base surgery techniques. The cranio-orbito zygomatic (COZ) approach evolved to address the significant limitations of the pterional exposure in excising some parasellar lesions. Although extremely versatile, the COZ technique involves extensive dissection of the cranio-facial soft tissue and reconstruction towards the end of the procedure. The zygomatic reshaping is a minor modification of the pterional approach, which enhances the exposure possible through the classical approach and often circumvents the need for an orbito-zygomatic osteotomy.
AIMS: To demonstrate the technique of reshaping of the zygomatic complex for an optimum surgical exposure and cosmetic results.
MATERIALS AND METHODS: Between April 2013 and December 2014, 8 patients with various middle and anterior skull base lesions were operated using this technique. These patients form the clinical material for this study. The clinical details, radiological images and follow-up data of these patients were collected for this clinical series.
RESULTS: No mortality or significant morbidity were noted in this series. The post-operative cosmetic results were also acceptable.
CONCLUSIONS: A quick and easy modification of the classical pterional approach through zygomatic reshaping has the potential to provide a significantly enhanced surgical exposure for parasellar lesions. Using this approach, it might be possible to avoid an extensive orbito-zygomatic osteotomy in suitable lesions.

92: Mondal D, Jana M, Sur PK, Khan EM. Primary sinonasal meningioma in a child. Ear Nose Throat J. 2015 Sep;94(9):E7-9. PubMed PMID: 26401683.

Meningiomas are common intracranial extra-axial masses. They are rarely encountered in extracranial locations; when they are, the most common head and neck locations are the paranasal sinuses and the temporal bone. Meningiomas in children are very rare, especially in the neonatal period. The clinical presentation and clinical findings are often nonspecific. The diagnosis can be established by imaging and histopathologic examination with immunohistochemistry. We describe a case of primary sinonasal meningioma in a 2-year-old boy whose onset of symptoms had begun during the neonatal period. We discuss the clinical features, imaging results, and histopathologic and immunohistochemical findings in this case.

93: Morey VM, Nag HL, Chowdhury B, Sankineani SR, Naranje SM. A prospective comparative study of clinical and functional outcomes between anatomic double bundle and single bundle hamstring grafts for arthroscopic anterior cruciate ligament reconstruction. Int J Surg. 2015 Sep;21:162-7. doi: 10.1016/j.ijsu.2015.07.699. Epub 2015 Aug 5. PubMed PMID: 26253848.

BACKGROUND: Despite a number of studies comparing postoperative stability and function after anatomic single bundle and double bundle anterior cruciate ligament reconstruction, it remains unclear whether double bundle reconstruction has better functional outcome than single bundle anterior cruciate ligament reconstruction.
PURPOSE: To compare the subjective functional outcome as well as clinical stability in patients treated with either anatomic single bundle or anatomic double bundle anterior cruciate ligament (ACL) reconstruction. We hypothesized that there would be no difference in the postoperative functional outcome and clinical stability between anatomical double bundle anterior cruciate ligament reconstructions when compared to single bundle anterior cruciate ligament reconstructions.
METHODS: We prospectively followed 40 patients out of which, 20 patients were operated for anatomic single bundle ACL reconstruction and other 20 patients underwent anatomic double bundle ACL reconstruction. Patient evaluation using the

laxity tests and outcome scales was done preoperatively and at 12, 24 and 48 months after the surgery. Clinical stability was assessed by Lachman test, Pivot shift test and Delhi active test. Functional outcome was assessed by International Knee Documentation Committee (IKDC), Lysholm and Modified Cincinnati scores. Patients in both groups were evaluated at regular intervals for a minimum period of 48 months (mean 51 months, range 48-56 months).
RESULTS: For all subjective scores, double bundle group patients reported statistically significant higher scores compared to single bundle group patients. Graded stability results of the Lachman, and Pivot shift tests were significantly higher in the anatomically reconstructed double bundle patient group.
CONCLUSION: We suggest that functional outcome and clinical stability may be better with anatomical double bundle anterior cruciate ligament reconstruction as compared to anatomical single bundle anterior cruciate ligament reconstruction.

94: Muhammad Aslam MK, Kumaresan A, Rajak SK, Tajmul M, Datta TK, Mohanty TK, Srinivasan A, Yadav S. Comparative proteomic analysis of Taurine, Indicine, and crossbred (Bos taurus Ã— Bos indicus) bull spermatozoa for identification of proteins related to sperm malfunctions and subfertility in crossbred bulls. Theriogenology. 2015 Sep 1;84(4):624-33. doi: 10.1016/j.theriogenology.2015.04.020. Epub 2015 May 1. PubMed PMID: 26033646.

Subfertility is one of the most common problems observed among Taurine × Indicine crossbred bulls in tropical countries; however, the etiology remain unknown in most of the cases. In present study, we compared the proteomic profile of spermatozoa from crossbred bulls (Bos taurus × Bos indicus) against their purebred parent lines (Holstein Friesian [Taurine] and Tharparkar [Indicine]) to find out alteration in expressions of proteins, if any. The proteomic profiles of freshly ejaculated spermatozoa from these breeds were compared by two-dimensional difference gel electrophoresis, and differentially expressed proteins were identified through mass spectrometry. It was observed that compared to Holstein Friesian, nine proteins were underexpressed and eight proteins were overexpressed ($P < 0.05$) in the spermatozoa of crossbred bulls. Similarly, four proteins were overexpressed and four proteins were underexpressed ($P < 0.05$) in the spermatozoa of crossbred bulls compared to Tharparkar bulls. In concurrent three breed comparison, 14 proteins were found to be differentially expressed ($P < 0.05$) between these breeds. From the findings of the study, it is apparent that the expression levels of several functionally significant proteins are either upregulated or downregulated in spermatozoa of crossbred bulls, which might be related to high incidence of subfertility in these bulls.

95: Mundhe K, Jain V, Pruthi G, Shah N. Clinical study to evaluate the wear of natural enamel antagonist to zirconia and metal ceramic crowns. J Prosthet Dent. 2015 Sep;114(3):358-63. doi: 10.1016/j.prosdent.2015.03.001. Epub 2015 May 16. PubMed PMID: 25985742.

STATEMENT OF PROBLEM: Tooth wear is a complex process, which, if not prevented, may adversely affect the integrity of the stomatognathic system. Different restorative dental materials may affect the amount of wear on natural enamel antagonists.
PURPOSE: The purpose of this in vivo study was to evaluate and compare the wear of enamel opposing natural enamel, zirconia, and metal ceramic crowns after 1 year.
MATERIAL AND METHODS: Ten participants between 18 and 35 years of age requiring 2 complete crowns, 1 on either side of maxillary or mandibular molar region, and having healthy natural teeth in the opposing arch were selected. For each participant, 1 monolithic polished zirconia crown and 1 glazed metal ceramic crown were fabricated and cemented. To evaluate the wear of the antagonistic

natural enamel (premolar and molar), polyvinyl siloxane impressions were made immediately (baseline) and at 1 year after cementation. The wear of natural enamel against natural enamel was evaluated as the control. The resulting casts were scanned (using a 3D white light scanner), and 3D software was used to calculate the maximum amount of linear wear.
RESULTS: One-way repeated measures ANOVA was conducted to analyze data. Mean ±SD occlusal wear of the antagonistic enamel 1 year after the cementation of metal ceramic crowns was 69.20 ±4.10 μm for premolar teeth and 179.70 ±8.09 μm for molar teeth, whereas for zirconia crowns, it was 42.10 ±4.30 μm for premolar teeth and 127.00 ±5.03 μm for molar teeth. Occlusal wear of natural enamel opposing natural enamel was 17.30 ±1.88 μm in the premolar region and 35.10 ±2.60 μm in the molar region. The Bonferroni post hoc test revealed that the occlusal wear of antagonistic enamel 1 year after the cementation of a metal ceramic crown was significantly higher (P<.001) than that of an opposing zirconia crown or natural enamel.
CONCLUSIONS: Zirconia crowns led to less wear of antagonist enamel than metal ceramic crowns, but more than natural enamel.

96: Mutreja D, Kotru M, Sazawal S, Ranjan R, Sharma A, Acharya SK, Saxena R. Hereditary and Acquired Thrombophilia in Splanchnic Vein Thrombosis: A Single-Center Experience. Clin Appl Thromb Hemost. 2015 Sep;21(6):521-6. doi: 10.1177/1076029613511520. Epub 2013 Nov 19. PubMed PMID: 24254895.

The purpose of this study was to characterize differences in the prevalence of hereditary and acquired thrombophilia in patients with splanchnic vein thrombosis (SVT). A total of 88 consecutive patients with SVT, including Budd Chiari Syndrome (n = 47) and portal extrahepatic portal vein obstruction (n = 41), underwent comprehensive thrombophilia testing, including testing for heritable and acquired causes. In 33 (37.5%) patients, etiology could be explained by at least 1 of the heritable etiologic factors, and 31 (35.2%) patients could be explained by at least 1 of the acquired causes studied. The combination of multiple concurrent factors was present in 9 (11.4%) patients. Among the heritable causes, the risk of SVT was found increased in the presence of thrombophilia resulting from the deficiencies of the naturally occurring anticoagulant proteins, and the acquired thrombogenic factors were significantly associated with causation of thrombosis in adult patients with SVT.

97: Nagarajan S, Paul VK, Yadav N, Gupta S. The National Rural Health Mission in India: its impact on maternal, neonatal, and infant mortality. Semin Fetal Neonatal Med. 2015 Oct;20(5):315-20. doi: 10.1016/j.siny.2015.06.003. Epub 2015 Sep 15. Review. PubMed PMID: 26385051.

The National Rural Health Mission (NRHM) has been a watershed in the history of India's health sector. As a previously unattempted investment, governance, and mobilization effort, the NRHM succeeded in injecting new energy into India's public health system. A huge expansion of infrastructure and human resources is the hallmark of the NRHM action. Demand-side initiatives led to enhanced utilization of public health facilities, especially for facility births. The impact is visible. The Mission has brought Millennium Development Goals 4 and 5 within India's grasp. Acceleration in infant and neonatal mortality reduction is especially notable. The NRHM has created conditions for the country to move toward universal health coverage.

98: Nagpal R, Sharma N, Vasavada V, Maharana PK, Titiyal JS, Sinha R, Upadhyay AD, Vajpayee RB. Toric intraocular lens versus monofocal intraocular lens

implantation and photorefractive keratectomy: a randomized controlled trial. Am J Ophthalmol. 2015 Sep;160(3):479-486.e2. doi: 10.1016/j.ajo.2015.06.007. Epub 2015 Jun 19. PubMed PMID: 26095261.

PURPOSE: To compare the outcomes of phacoemulsification with toric intraocular lens implantation vs phacoemulsification with monofocal intraocular lens implantation followed by photorefractive keratectomy (PRK) for correction of pre-existing astigmatism.
DESIGN: Randomized controlled trial, 6-month study.
METHODS: setting: Institutional.
STUDY POPULATION: Sixty eyes of 52 patients with age-related senile cataract and regular corneal astigmatism ranging from 1.50 to 3.00 diopters, enrolled and randomly allocated in 2 groups based on computer-generated random number table.
INTERVENTION: Group 1 patients underwent phacoemulsification with toric intraocular lens (IOL) implantation and Group 2 patients underwent phacoemulsification with monofocal IOL implantation followed by PRK 3 months later.
MAIN OUTCOME MEASURES: The main outcome measures were uncorrected distance visual acuity (UDVA), corrected distance visual acuity (CDVA), residual cylinder, contrast sensitivity, glare acuity, pain score, and higher-order aberrations.
RESULTS: At 6 months 53.3% of eyes in the toric IOL and 60% eyes in the monofocal IOL with PRK group attained UDVA of 20/20. Median residual refractive cylinder value was higher in the toric IOL group (toric IOL = -0.5, monofocal IOL with PRK = 0; P = .02). Mean root mean square value of total aberrations (5 mm pupil) was higher in monofocal IOL with PRK eyes (toric IOL= 1.02 ± 0.44, monofocal IOL with PRK = 1.28 ± 0.5; P = .04). Mean contrast sensitivity values were comparable. Mean toric IOL rotation was 1.3 ± 2.1 degrees. Mean glare acuity was better in toric IOL eyes (toric IOL = 0.46 ± 0.16, monofocal IOL with PRK = 0.73 ± 0.12; P < .001). Median postoperative pain scores were higher in monofocal IOL with PRK eyes.
CONCLUSION: PRK yields lesser residual cylinder compared to toric IOL. However, it causes greater postoperative pain and corneal aberrations, and poor glare acuity.

99: Nakashima H, Tetreault LA, Nagoshi N, Nouri A, Kopjar B, Arnold PM, Bartels R, Defino H, Kale S, Zhou Q, Fehlings MG. Does age affect surgical outcomes in patients with degenerative cervical myelopathy? Results from the prospective multicenter AOSpine International study on 479 patients. J Neurol Neurosurg Psychiatry. 2015 Sep 29. pii: jnnp-2015-311074. doi: 10.1136/jnnp-2015-311074. [Epub ahead of print] PubMed PMID: 26420885.

BACKGROUND: In general, older patients with degenerative cervical myelopathy (DCM) are felt to have lower recovery potential following surgery due to increased degenerative pathology, comorbidities, reduced physiological reserves and age-related changes to the spinal cord. This study aims to determine whether age truly is an independent predictor of surgical outcome and to provide evidence to guide practice and decision-making.
METHODS: A total of 479 patients with DCM were prospectively enrolled in the CSM-International study at 16 centres. Our sample was divided into a younger group (<65 years) and an elderly (≥65 years) group. A mixed model analytic approach was used to evaluate differences in the modified Japanese Orthopaedic Association (mJOA), Nurick, Short Form-36 (SF-36) and Neck Disability Index (NDI) scores between groups. We first created an unadjusted model between age and surgical outcome and then developed two adjusted models that accounted for variations in (1) baseline characteristics and (2) both baseline and surgical factors.
RESULTS: Of the 479 patients, 360 (75.16%) were <65 years and 119 (24.84%) were ≥65 years. Elderly patients had a worse preoperative health status (p<0.0001) and were functionally more severe (p<0.0001). The majority of younger patients (64.96%) underwent anterior surgery, whereas the preferred approach in the

elderly group was posterior (58.62%, p<0.0001). Elderly patients had a greater number of decompressed levels than younger patients (p<0.0001). At 24 months after surgery, younger patients achieved a higher postoperative mJOA (p<0.0001) and a lower Nurick score (p<0.0001) than elderly patients. After adjustments for patient and surgical characteristics, these differences in postoperative outcome scores decreased but remained significant.
CONCLUSIONS: Older age is an independent predictor of functional status in patients with DCM. However, patients over 65 with DCM still achieve functionally significant improvement after surgical decompression.

100: Nambirajan A, Suri V, Sharma MC, Kumar R, Garg A, Gulati S, Tandon V. A 7-year-old girl with recurrent episodes of abdominal pain, seizures, and loss of vision: Primary diffuse leptomeningeal primitive neuroectodermal tumor masquerading as chronic meningitis. Neurol India. 2015 Sep-Oct;63(5):736-42. doi: 10.4103/0028-3886.166552. PubMed PMID: 26448234.

101: Nangia S, Paul VK, Deorari AK, Sreenivas V, Agarwal R, Chawla D. Topical Oil Application and Trans-Epidermal Water Loss in Preterm Very Low Birth Weight Infants-A Randomized Trial. J Trop Pediatr. 2015 Dec;61(6):414-20. doi: 10.1093/tropej/fmv049. Epub 2015 Sep 3. PubMed PMID: 26338490.

OBJECTIVE: Topical emollient application reduces trans-epidermal water loss (TEWL) in preterm neonates. Coconut oil used traditionally for infant massage in India has not been evaluated for the same.
PATIENTS AND METHODS: Very low birth weight (VLBW) neonates were randomized at 12 h of age to Oil (n = 37) or Control (n = 37) groups. Oil group neonates received twice-daily coconut oil application without massage, and Control group received standard care. TEWL was measured every 12 h using an evaporimeter till Day 7 when skin swabs were obtained for bacterial growth and skin condition was assessed using a validated score.
RESULTS: Birth weight (g; mean ± SD: 1213 + 214 vs. 1164 + 208, p = 0.31), gestation [week; median (interquartile range): 32 (31-33) vs. 32 (29-33), p = 0.10] and other baseline variables were comparable. TEWL was significantly reduced (g/m(2)/h, mean difference: -6.80, 95% confidence interval: -3.48, -10.15; p < 0.01) with better skin condition and lower bacterial growth in the Oil group (20% vs. 60%, p < 0.01).
CONCLUSION: Coconut oil application reduced TEWL without increasing skin colonization in VLBW neonates.
CLINICAL TRIALS REGISTRATION: NCT01758068.

102: Nataraj V, Batra A, Rastogi S, Khan SA, Sharma MC, Vishnubhatla S, Bakhshi S. Developing a prognostic model for patients with localized osteosarcoma treated with uniform chemotherapy protocol without high dose methotrexate: A single-center experience of 237 patients. J Surg Oncol. 2015 Nov;112(6):662-8. doi: 10.1002/jso.24045. Epub 2015 Sep 18. PubMed PMID: 26381138.

BACKGROUND: Studies of baseline prognostic factors in patients with localized osteosarcoma treated without high dose methotrexate are limited.
METHODS: This is single-institutional review of localized osteosarcoma patients treated without high dose methotrexate between June 2003-December 2012. A multivariate analysis of impact of baseline and treatment characteristics on outcome was performed and a prognostic model was developed based solely on baseline factors for predicting event-free survival (EFS) and overall survival

(OS).
RESULTS: Of 237 patients with median age of 17 years (range 2-66 yrs), neoadjuvant chemotherapy (NACT) was administered in 220 (92.82%) patients. Post NACT, 200/237 (84.38%) patients underwent surgery. At 30 months median follow-up, 5-year EFS and OS were 36.60±0.03%, and 50.33±0.04%, respectively. In multivariate analysis, baseline factors including duration of symptom >4 months (P<0.001) and good performance status (PS) (P<0.001) predicted better EFS whereas good PS (P=0.01) and normal serum alkaline phosphatase (SAP) (P=0.03) predicted better OS. The 5-year EFS without any risk factor (symptom duration <4 months, PS>1) was 58.7±0.1%, with either one factor 31.5±0.1% and with both factors 21.9±0.1%. The 5-year OS without any risk factor (PS>1, elevated SAP) was 66.9±0.1%, with either one factor 57.9±0.1% and with both factors 25.6±0.1%
CONCLUSIONS: This prognostic model assists in categorizing risk-groups within localized osteosarcoma. J. Surg. Oncol. 2015;112:662-668. © 2015 Wiley Periodicals, Inc.

103: Pahwa S, Sharma S, Das CJ, Dhamija E, Agrawal S. Intraorbital Cystic Lesions: An Imaging Spectrum. Curr Probl Diagn Radiol. 2015 Sep-Oct;44(5):437-48. doi: 10.1067/j.cpradiol.2015.03.003. Epub 2015 Mar 17. Review. PubMed PMID: 25908230.

Presence of a cyst or a cystic component in an intraorbital mass often narrows the list of differential diagnoses to specific entities. Such a lesion in the orbit may arise from structures within the orbit, globe, and lacrimal system or from neighboring paranasal sinuses or meninges. Common congenital and developmental lesions encountered within the orbit include dermoids and epidermoids, and infrequently coloboma. Parasitic cysts (cysticercus), orbital abscess, mucocele, and vascular lesions are the most common acquired pathologies giving rise to fluid-containing lesions within the orbit. The role of a radiologist is crucial in expediting the diagnosis of orbital lesions with the help of characteristic imaging features on ultrasound, computed tomography, or magnetic resonance imaging. It also helps in identifying complications in others where formulation of an early and effective management strategy is vital for preserving vision.

104: Pallavi P, Sagar R, Mehta M, Sharma S, Subramanium A, Shamshi F, Sengupta U, Pandey RM, Mukhopadhyay AK. Serum cytokines and anxiety in adolescent depression patients: Gender effect. Psychiatry Res. 2015 Sep 30;229(1-2):374-80. doi: 10.1016/j.psychres.2015.06.036. Epub 2015 Jun 27. PubMed PMID: 26163725.

The present study compares the serum cytokine levels between adolescent depression patients and healthy controls and assesses correlation between depression, anxiety scores and serum levels of eight cytokines. Study also checked the variation in serum levels with medication status (medication free/naïve vs. patients on medication). Following clinical and psychometric assessment of 77 adolescent (aged 13-18 years) depression patients (49 males and 28 females; 56 medication free/naïve) and 54 healthy controls (25 males, 29 females), eight cytokines (IL-1β, IL-2, IL-6, IL-10, TNF-α, IFN-γ, TGF-β1 and IL-17A {denoted IL-17 throughout}) were measured in serum using ELISA. Depressed adolescents had significantly high levels of IL-2 (p<0.001) and IL-6 (p=0.03) as compared to controls. The female population skewed the result of one cytokine (IL-6) in patients. Anxiety scores showed positive correlation (only in female patients) with IL-1β, IL-10 and negative correlation with TGF-β1 and IL-17. The gender effect in relationship between anxiety and cytokines was not straightforward. On comparing study groups on the medication/naïve status, IL-2 and TGF-β1 showed significant difference between the groups (p<0.001, p=0.007

higher in medicated). Depression in adolescents was associated with elevation of proinflammatory serum cytokines with a gender bias for females. Anxiety scores correlated negatively with TGF-β1 and IL-17.

105: Panda A, Kumar A, Gamanagatti S, Mishra B. Virtopsy Computed Tomography in Trauma: Normal Postmortem Changes and Pathologic Spectrum of Findings. Curr Probl Diagn Radiol. 2015 Sep-Oct;44(5):391-406. doi: 10.1067/j.cpradiol.2015.03.005. Epub 2015 Mar 26. Review. PubMed PMID: 25956952.

Virtopsy or virtual autopsy is an emerging technique, developed to supplement traditional forensic autopsy. Virtopsy can be done by using imaging techniques such as computed tomography (CT) and magnetic resonance imaging. Virtopsy CT comprises a pan-body noncontrast CT scan obtained after death. Virtopsy CT is useful in trauma cases as it can provide an overview of injuries sustained by the victim; detect craniofacial, cerebral, thoracic, and osseous injuries; and suggest putative causes of death. This can reduce the time taken for forensic autopsy and sometimes obviate the need for a forensic autopsy. However, virtopsy CT reporting is not exactly synonymous with interpreting antemortem contrast-enhanced CT images as postmortem decompositional changes also occur. Awareness of imaging appearances of both postmortem putrefactive changes and pathologic findings is essential to avoid errors in interpretation and enable estimation of cause of death in patients with trauma.

106: Pandey D, Garg PK, Jakhetiya A, Pandey R, Bhoriwal S, Nath D, Kumar S. Surgical experience of primary salivary gland tumors of lung: A case series. Int J Surg. 2015 Sep;21:92-6. doi: 10.1016/j.ijsu.2015.06.084. Epub 2015 Jul 17. PubMed PMID: 26192970.

INTRODUCTION: Primary salivary gland type tumors of lung (PSGTTL) are rare intra-thoracic malignant neoplasm. Their description in literature is largely limited to a few case series/case reports. We herewith present our surgical experience of and review its clinical presentation, management options and survival outcomes.
METHODS: This retrospective analysis of prospectively maintained computerized data-base of patients was conducted in a tertiary teaching oncology centre in North India. The case records of all the patients who underwent surgery for PSGTTL were reviewed. Details concerning the clinical presentation, preoperative therapy, operative procedure, histopathological examination, postoperative complications and outcome were retrieved from the case records.
RESULTS: There were seven patients who underwent surgery for PSGTTL during the period from January 2012 to December 2014. Hemoptysis (n = 6, 85.7%) and dyspnoea (n = 6, 85.7%) were common presenting clinical features. Fiber-optic bronchoscopy revealed endobronchial growth in all patients - five patients had growth in left main bronchus while one each had growth in right main bronchus and right intermediate bronchus. Biopsy confirmed adenoid cystic carcinoma in 4 (57.1%) and muco-epidermoid carcinoma in 3 (42.9%) patients. All but one had R'0' resection - pneumonectomy in five and bilobectomy in one patient; one patient was found to be unresectable in view of dense adhesions between lung and heart. Median pathological tumor size was 3.5 cm; none of the patient was found to have metastatic spread to lymph nodes. Overall, six patients are alive after a median follow up of 5 months (range 1-30).
CONCLUSION: Radical surgery to achieve R'0' resection is the main stay of treatment of PSGTTL to achieve prolonged survival.

107: Pandey D, Garg PK, Manjunath NM, Sharma J. Extra-Hepatic Bile Duct

Resection: an Insight in the Management of Gallbladder Cancer. J Gastrointest Cancer. 2015 Sep;46(3):291-6. doi: 10.1007/s12029-015-9737-9. PubMed PMID: 26049726.

BACKGROUND: Involvement of extrahepatic bile duct in gallbladder cancer (GBC) is considered a sign of advanced disease; resection of extrahepatic bile duct in GBC has been a contentious issue considering the poor prognosis of the disease.
METHODS: This retrospective study was done in two tertiary teaching hospitals of North India. The case records of all the GBC patients who underwent radical cholecystectomy with extra-hepatic bile duct resection were reviewed. Details concerning the clinical presentation, preoperative therapy, operative procedure, indication of bile duct resection, postoperative complications and outcome were retrieved from the case records. Kaplan-Meier analysis was done to estimate median disease-free survival and overall survival.
RESULTS: There were 17 GBC patients who underwent radical cholecystectomy with resection of extrahepatic bile duct. Median age of the patients was 51 years (range 35-62); male to female ratio was 5:12. Six patients were diagnosed after histopathological examination of resected gallbladder specimen following cholecystectomy (incidental gallbladder cancer). All the patients had R'0' resection. The indication for extra-hepatic bile duct resection was direct infiltration of hepatoduodenal ligament in nine, positive cystic duct margin in two, densely adherent pericholedochal lymphnodes in one and associated ampullary growth in one patient. Kaplan-Meier analysis predicted median disease-free survival of 20 months and median overall survival of 26 months.
CONCLUSION: Extrahepatic bile duct resection to achieve R'0' resection in the management of advanced gallbladder cancer is safe with acceptable postoperative morbidity and has potential to improve survival.

108: Pandey RK, Subramanium RK, Darlong V, Lekha C, Garg R, Punj J, Rewari V, Bajpai M. Evaluation of glottic view through Air-Q Intubating Laryngeal Airway in the supine and lateral position and assessing it as a conduit for blind endotracheal intubation in children in the supine position. Paediatr Anaesth. 2015 Dec;25(12):1241-7. doi: 10.1111/pan.12746. Epub 2015 Sep 29. PubMed PMID: 26417722.

INTRODUCTION: We assessed the feasibility of blind orotracheal intubation in children using the Air-QILA as a conduit in supine position and the glottic view grading by fiberoptic bronchoscope (FOB) through it both in supine and lateral positions.
METHODS: After ethical approval and consent, 60 children were enrolled in the study. In the operating room, after attaching standard monitors to all children, anesthesia was induced with sevoflurane (2-8%) in oxygen (100%). Once the children became sedated, an i.v. access was established and injection glycopyrrolate (10 μg·kg(-1)), fentanyl (2 μg·kg(-1)), and atracurium (0.5 mg·kg(-1)) were administered. After 3 min, the Air-QILA was placed in supine position and glottic view was assessed by using FOB, in supine and right lateral decubitus position. In all children, gradings of glottic view in two different positions were noted. After that all children were turned supine, and orotracheal intubation was done blindly through the Air-QILA. The success rate, insertion time of the Air-QILA, and endotracheal intubation were noted.
RESULTS: The Air-QILA placement was successful in 57 children in first attempt and three children required second attempt. However, blind endotracheal intubations through the Air-QILA were successful in 38 children in first attempt and 12 children required second attempt. In the remaining 10 children, where blind endotracheal intubation through the Air-QILA remained unsuccessful, conventional laryngoscopy was performed. In supine and lateral positions, Grade 1 glottic view was seen in 41 and 38 of total 60 patients, respectively. Turning of all children from supine to lateral decubitus position resulted in the deterioration of grading of glottic view in eight children and improvement in two children (P = 0.001).
CONCLUSION: The Air-QILA is an easy to place supraglottic airway device with excellent airway seal and low airway morbidity. It may be useful as a conduit for

blind orotracheal intubation in supine position and can be used as an effective alternative to FOB in low resource settings.

109: Parakh N, Karthikeyan G, Bhargava B. Creating healthy heart environment. Indian J Med Res. 2015 Sep;142(3):235-7. doi: 10.4103/0971-5916.166526. PubMed PMID: 26458337; PubMed Central PMCID: PMC4669856.

110: Parida GK, Dhull VS, Karunanithi S, Arora S, Sharma A, Shamim SA. Accurate Characterization of Skeletal Lesions in Tuberous Sclerosis Complex Using 99mTc MDP SPECT/CT. Clin Nucl Med. 2015 Sep;40(9):e444-5. doi: 10.1097/RLU.0000000000000855. PubMed PMID: 26098284.

We report a 15-year-old patient with tuberous sclerosis complex or Bourneville's disease with history of generalized tonic-clonic seizure for last 2 years and was currently on antiepileptic medication. He also had a history of left nephrectomy for renal cell carcinoma clear cell type. The patient had multiple adenoma sebaceum over the nasolabial region, ash leaf spots over the lower limbs, a Shagreen patch over the back, and multiple calcified tubers in the subependymal region. He was then referred for the skeletal scintigraphy to look for skeletal lesions, which revealed involvement of bilateral humeri, tibiae, and iliac bones accurately characterized on SPECT/CT.

111: Patel CD, Mukherjee A. Assessment of left ventricular mechanical dyssynchrony in coronary artery disease. J Nucl Cardiol. 2015 Sep 11. [Epub ahead of print] PubMed PMID: 26358084.

112: Prakash K, Chandran DS, Khadgawat R, Jaryal AK, Deepak KK. Correlations between endothelial function in the systemic and cerebral circulation and insulin resistance in type 2 diabetes mellitus. Diab Vasc Dis Res. 2016 Jan;13(1):49-55. doi: 10.1177/1479164115604120. Epub 2015 Sep 25. PubMed PMID: 26408643.

Insulin resistance is associated with endothelial dysfunction in type 2 diabetes mellitus, which can lead to impaired vascular reactivities of both systemic and cerebral circulations. Appropriate 'correction' of vascular reactivity results for non-endothelium-dependent systemic effects avoids misinterpretation of endothelial function. Therefore, we 'corrected' vascular reactivity results and explored the potential correlations between systemic vascular reactivity, cerebrovascular reactivity and insulin resistance. In 34 patients, 'systemic vascular reactivity' was assessed by quantifying reactive hyperaemia. Cerebrovascular reactivity was assessed by quantifying changes in cerebral blood flow velocity during hypercapnia. To minimize the influence of non-endothelium-dependent systemic effects on vascular reactivity results, 'corrected systemic vascular reactivity' was calculated by normalizing systemic vascular reactivity using the measurements from the contralateral side; and cerebrovascular reactivity results were corrected by calculating percentage and absolute changes in cerebrovascular conductance index ('percent cerebrovascular conductance index' and 'delta cerebrovascular conductance index', respectively). Insulin resistance was estimated by homeostatic model assessment. Correlation between conventional cerebrovascular reactivity and systemic vascular reactivity was not significant. But correlations between 'corrected systemic vascular reactivity' and 'percent cerebrovascular conductance index' ($r=0.51$; $p=0.002$) and 'corrected systemic vascular reactivity' and 'delta cerebrovascular conductance index' ($r=0.50$; $p=0.003$) were significant. Among all vascular reactivity parameters, only 'delta cerebrovascular conductance index' was significantly correlated with homeostatic model assessment of insulin resistance ($r=-0.38$; $p=0.029$). In conclusion, endothelial function in the systemic and cerebral circulations is moderately correlated, provided that vascular reactivity estimates are corrected for non-endothelium-dependent influences.

113: Prasad GL, Mahapatra AK. Case series of choroid plexus papilloma in children at uncommon locations and review of the literature. Surg Neurol Int. 2015 Sep 28;6:151. doi: 10.4103/2152-7806.166167. eCollection 2015. PubMed PMID: 26500797; PubMed Central PMCID: PMC4596056.

BACKGROUND: Choroid plexus papillomas (CPPs) comprise around 1% of intracranial neoplasms. The most common location is atrium of the lateral ventricle in children and fourth ventricle in adults. Other rare locations include third ventricle, cerebellopontine (CP) angle and cerebral parenchyma, with only a few cases reported. Authors report three cases of CPP at uncommon locations in pediatric patients. The rarity of these locations, diagnostic dilemma and management aspects are discussed along with an extensive review of the literature.
METHODS: Retrospective institutional data analysis of histopathologically confirmed pediatric CPPs from 2010 to 2014.
RESULTS: Authors noted three cases of CPP in children in uncommon locations-one each in the posterior third ventricle, fourth ventricle, and CP angle. All were males in the first decade. Two cases presented with features of obstructive hydrocephalus while the latter presented with compressive effects. Complete excision was achieved in two cases while subtotal removal was performed in one case (fourth ventricular) because of excess blood loss. Mean follow-up duration was 24.6 months (range 20-30 months). One case (of subtotal removal) had fair recovery while other two had excellent outcomes.
CONCLUSIONS: Posterior third ventricle, fourth ventricle, and CP angle are uncommon locations for these tumors in children. Complete surgical removal is the treatment of choice and approach needs to be tailored according to the site and size of the lesion. Blood loss is a major concern in young children as they are highly vascular tumors. Complete removal leads to excellent long-term survival rates. Adjuvant treatment is not required.

114: Puri P, Anand AC, Saraswat VA, Acharya SK, Dhiman RK, Sarin SK, Singh SP, Chawla YK, Aggarwal R, Amarapurkar D, Arora A, Dixit VK, Sood A, Shah S, Duseja A, Kapoor D, Shalimar, Madan K, Pande G, Nagral A, Kar P, Koshy A, Puri AS, Eapen CE, Thareja S. Indian National Association for Study of the Liver (INASL) Guidance for Antiviral Therapy Against HCV Infection in 2015. J Clin Exp Hepatol. 2015 Sep;5(3):221-38. doi: 10.1016/j.jceh.2015.09.002. Epub 2015 Sep 21. Review. PubMed PMID: 26628840; PubMed Central PMCID: PMC4632106.

Overall prevalence of HCV infection in India has been estimated to be approximately 1.3% in the general population. Recent introduction of sofosbuvir in India at a relatively affordable price has led to great optimism about prospects of cure for these patients. This drug is likely to form the backbone of current and future treatment regimes for HCV infection, displacing pegylated interferon. Availability of directly acting antiviral drugs (DAAs) has necessitated revision of INASL guidelines for the treatment of HCV published in 2014, as has happened across the world. Current considerations for the treatment of HCV in India include the poorer response of genotype 3, nonavailability of many of the DAAs recommended by other guidelines and the cost of therapy. Since only one DAA, sofosbuvir, is available in India, only two sofosbuvir-based regimes are possible: either dual drug therapy in combination with ribavirin alone for 6 months or triple drug therapy in combination with ribavirin and pegylated interferon for 3 months. The utility of these regimes in various situations has been discussed. Availability of a few other newer DAAs, expected in 2016, is expected to lead to more widespread use of these agents. Current guidance will be updated once newer DAAs, newer evidence with DAAs and 'real-life experience' with use of DAAs accumulate in India.

115: Raheja A, Suri A, Singh S, Kumar R, Kumar R, Nambirajan A, Sharma MC. Multimodality management of a giant skull base hemangioendothelioma of the

sphenopetroclival region. J Clin Neurosci. 2015 Sep;22(9):1495-8. doi: 10.1016/j.jocn.2015.03.014. Epub 2015 May 16. PubMed PMID: 25986183.

A 20-year-old man presented with proptosis, nasal obstruction, vision loss and cavernous sinus syndrome, ongoing for 6 years. Imaging and biopsy confirmed a middle skull base epithelioid hemangioendothelioma arising from the left sphenopetroclival region with infratemporal fossa and intracranial-intradural extension into the left temporal lobe. Preoperative embolization of the left internal maxillary artery followed by a combined neurosurgical (front-temporal orbito-zygomatic craniotomy) and otorhinolaryngology (maxillary swing) approach was performed for tumor debulking. Postoperative radiotherapy and maintenance interferon chemotherapy was given to achieve a favorable outcome at 6 months follow-up. We describe the pertinent clinical, genetic, radiological and histopathological features, along with the available therapeutic modalities for a primary giant skull base hemangioendothelioma.

116: Raizada N, Rahaman SH, Kandasamy D, Jyotsna VP. Rare association of insulin autoimmune syndrome with ankylosing spondylitis. Endocrinol Diabetes Metab Case Rep. 2015;2015:150090. doi: 10.1530/EDM-15-0090. Epub 2015 Sep 24. PubMed PMID: 26527431; PubMed Central PMCID: PMC4626647.

Insulin autoimmune syndrome (IAS) is a rare cause of hyperinsulinemic hypoglycaemia, which is known to occur in association with the use of sulfhydryl-containing drugs and autoimmune disorders. We describe a patient with hitherto an unreported association of IAS with ankylosing spondylitis. We have also performed and described a simplified method of polyethylene glycol (PEG) precipitation of an insulin bound antibody in the serum.LEARNING POINTS: IAS should be considered in differential diagnosis of endogenous hyperinsulinemic hypoglycaemia.Ankylosing spondylitis can be associated with IAS apart from several other autoimmune diseases.Very high serum insulin levels (100-10000μU/ml) are frequently seen in IAS.When faced with very high serum insulin before suspecting insulinoma, it is advisable that PEG precipitation of serum be done to identify antibody bound insulin.A clinical suspicion of IAS can avoid expensive imaging and unnecessary surgery in affected patients.

117: Rajpoot P, Sharma A, Harikrishnan S, Baruah BJ, Ahuja V, Makharia GK. Adherence to gluten-free diet and barriers to adherence in patients with celiac disease. Indian J Gastroenterol. 2015 Sep;34(5):380-6. doi: 10.1007/s12664-015-0607-y. Epub 2015 Nov 18. PubMed PMID: 26576765.

BACKGROUND: While adherence to gluten-free diet (GFD) is essential for effective control of celiac disease, the level of adherence to GFD may vary. We assessed the level of adherence to GFD and identified barriers to adherence in patients with celiac disease.
METHODS: Both treatment-naive and follow up patients with celiac disease were recruited from a celiac disease clinic. All the patients were assessed for symptom improvement using celiac symptom index (CSI), weight, and hemoglobin; adherence to GFD using detailed dietary history and food-labeled quiz questionnaire; identification of barriers to GFD using a self-administered 36-point questionnaire; and quality of life using a standard 36-item short form (SF36) questionnaire.
RESULTS: Among the patients who were already on GFD, only 53.3 % maintained an excellent or good level of adherence, which increased to 92.4 % at 6 months with repeated counseling. Among the treatment-naive patients, 64.8 % maintained either excellent or good compliance at 1 month after first counseling, which increased to 96.3 % at 6 months with repeated counseling. The most common barrier to adherence was non-availability of GFD. Certain barriers could be modified with repeated counseling and education. Response to GFD, as measured by CSI, gain in weight, and improvement in hemoglobin, was better in those having either excellent or good compliance to GFD compared to those who remained poorly

adherent.
CONCLUSIONS: Repeated counseling increased the level of adherence to GFD.

118: Rao R, Mandal P, Gupta R, Ramshankar P, Mishra A, Ambekar A, Jhanjee S, Dhawan A. Factors Affecting Drug Use During Incarceration: A Cross-Sectional Study of Opioid-Dependent Persons from India. J Subst Abuse Treat. 2016 Feb;61:13-7. doi: 10.1016/j.jsat.2015.08.009. Epub 2015 Sep 21. PubMed PMID: 26470597.

INTRODUCTION: Substance abuse and criminality share a complex relationship. The rates of substance use among the prisoners, and that of criminal acts among substance users in community setting are high. Data from South Asian countries, including from India are inadequate. This study aimed to assess the pattern of criminal acts among opioid-dependent subjects and their substance use pattern in the month before, during and after imprisonment.
METHODS: Using a cross-sectional study design and purposive sampling, opioid-dependent subjects (n=101) attending two community drug treatment clinics who have had any contact with the law were assessed using a specifically-designed tool to record criminal acts and substance use before, during and after last imprisonment.
RESULTS: Most subjects (93%) had committed illegal acts in their lifetime. Physical assault was the most common illegal act, while 23% reported selling drugs and 9% reported committing serious crimes. About 95% were arrested and 92% had spent time in police lockups. About 29% were arrested for drugs possession or drug use, and 3% of injecting drug users arrested for carrying injection equipment. About 85% had been imprisoned at least once, of whom 88% used psychoactive substances in the 1-month period before their last imprisonment. Opioids were the most common substances used daily (68%), followed by cannabis (34%) and alcohol (22%). Ninety-seven percent reported the availability of substances in prisons, and 65% also used substances during their last imprisonment. Cannabis (35%) was the most common substances used in prison followed by opioids (19%). Seventy-six percent used substances soon after prison release, and 13% of opioid users experienced opioid overdose soon after prison release. Use of cannabis, injecting drugs, and opioid use before imprisonment were predictors of substance use in prison.
CONCLUSION: Opioid-dependent people have various contacts with the law, including imprisonment. Many users are dependent on substances during prison-entry, which is an important reason for their continued substance use in prisons. There is a need to provide substance abuse treatment across all stages of criminal justice system.

119: Razik A, Goyal A, Gupta AK. Dural calcification and calvarial hyperostosis: a rare cause of obstructive hydrocephalus in 'malignant' osteopetrosis. BMJ Case Rep. 2015 Sep 3;2015. pii: bcr2015212283. doi: 10.1136/bcr-2015-212283. PubMed PMID: 26338250.

120: Rewari V, Sabapathy S, Ramachandran R. Giant maxillary hemangioma in a child--Ketamine to the rescue. Acta Anaesthesiol Taiwan. 2015 Sep;53(3):114-5. doi: 10.1016/j.aat.2015.07.005. Epub 2015 Jul 30. PubMed PMID: 26306477.

121: Roy M, Agarwal S, Mridha AR, Arora J, Madan K, Jain D, Mathur S. Metastatic ampullary adenocarcinoma in exfoliative sputum cytology: A rare presentation. Lung India. 2015 Sep-Oct;32(5):535-7. doi: 10.4103/0970-2113.164175. PubMed PMID: 26628782; PubMed Central PMCID: PMC4587022.

122: Sahi PK, Gupta N. Pharmacogenetics of Asthma. Indian J Pediatr. 2015 Sep;82(9):773-4. doi: 10.1007/s12098-015-1832-1. Epub 2015 Jul 7. PubMed PMID: 26144568.

123: Saluja R, Khan M, Church MK, Maurer M. The role of IL-33 and mast cells in allergy and inflammation. Clin Transl Allergy. 2015 Sep 29;5:33. doi: 10.1186/s13601-015-0076-5. eCollection 2015. Review. PubMed PMID: 26425339; PubMed Central PMCID: PMC4588911.

Interleukin-33 (IL-33) is a member of the interleukin-1 (IL-1) cytokine family. It is preferentially and constitutively expressed in different structural cells such as epithelial cells, endothelial cells, and smooth muscle cells. During necrosis of these cells (after tissue injury or cell damage), the IL-33 that is released may be recognized by different types of immune cells, such as eosinophils, basophils and, especially, mast cells. IL-33 needs the specific receptor ST2 (membrane-bound receptor) and Interleukin-1 receptor accessory protein heterodimer for its binding, which instigates the production of different types of cytokines and chemokines that have crucial roles in the exacerbation of allergic diseases and inflammation. IL-33 and mast cells have been influentially associated to the pathophysiology of allergic diseases and inflammation. IL-33 is a crucial regulator of mast cell functions and might be an attractive therapeutic target for the treatment of allergic and inflammatory diseases. In this review, we summarize the current knowledge regarding the roles of IL-33 and mast cells in the pathogenesis of allergies and inflammation.

124: Saxena A, Tomar GS, Sokhal S, Singh N. A novel use of nasopharyngeal airway in managing airway leak. Anesth Essays Res. 2015 Sep-Dec;9(3):420-2. doi: 10.4103/0259-1162.158006. PubMed PMID: 26712988; PubMed Central PMCID: PMC4683501.

We report a case of severe maxillofacial injury, who while undergoing later stages of reconstruction surgeries, presented with an inimitable kind of air leak during mask ventilation and its interesting management using a nasopharyngeal airway. The case also enlightens the importance of evaluating the available computed tomography images as a part of preanesthetic check-up.

125: Saxena A, Mehta A, Ramakrishnan S, Sharma M, Salhan S, Kalaivani M, Juneja R. Pulse oximetry as a screening tool for detecting major congenital heart defects in Indian newborns. Arch Dis Child Fetal Neonatal Ed. 2015 Sep;100(5):F416-21. doi: 10.1136/archdischild-2014-307485. Epub 2015 Jun 2. PubMed PMID: 26038347.

OBJECTIVE: To evaluate the use of pulse oximetry as a screening tool for detecting major congenital heart defects (CHDs) in Indian newborns.
DESIGN: Cross-sectional observational study.
PATIENTS: In a community hospital of north India, babies born during a specific 8 h period of the day were recruited over a period of 3 years. Newborns with incomplete documentation were excluded.
INTERVENTION: Routine clinical examination, pulse oximetry and bedside echocardiography.
OUTCOME MEASURES: Any abnormalities in clinical examination and pulse oximetry were recorded. CHDs were diagnosed using bedside echocardiography. Accuracy of pulse oximetry, clinical examination and their combination for detecting major CHDs was calculated.
RESULTS: Among the 19 009 newborns screened, 70 had major CHDs at birth (44 serious, 26 critical). Pulse oximetry detected 39 major (sensitivity 55.7%, 95% CI 44.1% to 66.8%; specificity 68.3%, 67.6% to 68.9%) and 22 critical CHDs (sensitivity 84.6%, 66.5% to 93.9%; specificity 68.3%, 67.6% to 68.9%). Addition of pulse oximetry to clinical examination significantly improved sensitivity for major CHDs (35.7% (25.5% to 47.4%) to 75.7% (64.5% to 85.3%), $p<0.01$) and critical CHDs (11.5% (4.0% to 29.0%) to 84.6% (66.5% to 93.9%), $p<0.01$).
CONCLUSIONS: Pulse oximetry is a sensitive screening tool for detecting major CHDs in Indian newborns. It adds significant value to the current practice of using clinical examination as a sole screening tool for detecting major CHDs. However, specificity of pulse oximetry was much lower in our study. Possible

reasons for low specificity could be non-repetition of pulse oximetry in newborns with initial lower saturations, high prevalence of infections and respiratory issues in our cohort and use of non-motion tolerant oximeter.

126: Saxena R, Narula J, Malik V, Kumar S, Talwar S. Giant Left Atrial Myxoma. J Card Surg. 2015 Oct;30(10):746-8. doi: 10.1111/jocs.12615. Epub 2015 Sep 9. PubMed PMID: 26350586.

127: See JA, Kaukinen K, Makharia GK, Gibson PR, Murray JA. Practical insights into gluten-free diets. Nat Rev Gastroenterol Hepatol. 2015 Oct;12(10):580-91. doi: 10.1038/nrgastro.2015.156. Epub 2015 Sep 22. Review. PubMed PMID: 26392070.

Coeliac disease is a global disease, and the only currently available treatment is a gluten-free diet (GFD). Although conceptually simple, the diet changes are substantial and have a profound effect on a patient's life. Untreated coeliac disease is associated with complications, including excess mortality, most of which can be avoided with a strict GFD. However, there are many barriers, including availability, cost and safety of gluten-free foods, and gluten cross-contamination. The GFD can be restrictive in social situations, leading to poor quality of life and, ultimately, nonadherence. As the number of patients with coeliac disease increases worldwide, clinicians need to be aware of the challenges patients face. Heightened awareness by physicians, dietitians and other providers can help maximize successful treatment, improve outcomes, and reduce health-care costs and disease burden. Routine follow-up is necessary to reinforce the need for a GFD, provide social and emotional support, and achieve mucosal healing, leading to reduced risk of complications. Unfortunately, there is wide variation in follow-up practices. The objective of this Review is to increase awareness of the challenges, management and follow-up of patients with coeliac disease to help them achieve GFD adherence and prevent complications whilst preserving their quality of life.

128: Seth R, Selvam P, Jain R, Gosh R, Arun J, Lodha R. Langerhans cell histiocytosis in a pediatric HIV patient. Virusdisease. 2015 Sep;26(3):200-2. doi: 10.1007/s13337-015-0262-z. Epub 2015 Jul 28. PubMed PMID: 26396988; PubMed Central PMCID: PMC4571586.

Children infected with human immunodeficiency virus (HIV) have an increased risk of malignancies. Herein, we present a 16 month old HIV infected child receiving antiretroviral therapy who presented with pain and swelling of both knees and ankles. This child was diagnosed as Langerhans cell histiocytosis (LCH) which is an uncommon proliferative disorder rarely reported in a HIV patient. The child was treated with chemotherapy and is well clinically. Infiltrative disorders like LCH should be kept among the differential diagnosis of bony pain and swelling in HIV infected children.

129: Seth R, Singh A. Leukemias in Children. Indian J Pediatr. 2015 Sep;82(9):817-24. doi: 10.1007/s12098-015-1695-5. Epub 2015 Feb 15. PubMed PMID: 25680783.

Childhood cancers are rare but an important cause of morbidity and mortality in children younger than 15 y of age. Common childhood malignancies include leukemias (commonest, 30-40%), brain tumors (20%) and lymphoma (12%) followed by neuroblastoma, retinoblastoma and tumors arising from soft tissues, bones and gonads. Leukemias, the commonest childhood cancer, arise from clonal proliferation of abnormal hematopoietic cells leading to disruption of normal marrow function and marrow failure. The various clinical manifestations of leukemia result from unregulated proliferation of the malignant clone and bone

marrow failure. There are two main subtypes, the commoner, acute lymphoblastic leukemia (ALL) and acute myeloid leukemia (AML). A small proportion may have chronic myeloid leukemia (CML) and juvenile myelomonocytic leukemia (JMML). A systematic approach is necessary for diagnosis. Treatment should be initiated as early as possible to avoid complications. A timely referral to a cancer center must be done if facilities for diagnosis/treatment, management of complications and provision for supportive care are not available at the treating center.

130: Shah N, Jadhav GR, Mittal P, Logani A. Conservative management of dens evaginatus and attached supernumerary tooth/odontome in mandibular premolar with dual radiolucencies. Contemp Clin Dent. 2015 Sep;6(Suppl 1):S269-73. doi: 10.4103/0976-237X.166826. PubMed PMID: 26604586; PubMed Central PMCID: PMC4632235.

Recently, an innovative, nonsurgical regenerative endodontic treatment protocol "SealBio" was introduced to manage mature nonvital permanent teeth with periapical lesions. This paper explains the management of an unusual case of dens evaginatus and an attached supernumerary tooth/an odontome associated with two distinct radiolucencies in a mandibular premolar with "SealBio" technique and discusses the various hypotheses on the pathogenesis of unusual malformation and associated pericervical cyst-like radiolucency in the involved tooth.

131: Shah SK, Lodha R. Implications of Vitamin D Deficiency in Critically Ill Children. Indian J Pediatr. 2015 Nov;82(11):977-9. doi: 10.1007/s12098-015-1902-4. Epub 2015 Sep 16. PubMed PMID: 26374738.

132: Shankar A, Roy S, Bhandari R, Malik A, Rath GK, Julka PK, Barnwal K, Upadhyaya S, Singh R, Srivastava V. Level of awareness of lung cancer risk factors, signs, symptoms and safe practices among college teachers of different states in India: Do awareness programmes have an impact on adoption of safe practices? Gulf J Oncolog. 2015 Sep;1(19):57-62. PubMed PMID: 26499832.

Lung cancer is the one of the most common cause of cancer mortality among men in India where incidence rates are increasing although they are largely preventable diseases. In India, late presentation is generally responsible for high mortality and morbidity rates and early detection is one of the best ways to control it. The purpose of this study is to measure the level of awareness on lung cancer among women represented by a sample of college teachers in India and the impact of awareness programs in changing or adopting safer practices and the prevention and early detection of the disease.MATERIAL AND METHODS: The assessment was conducted during a Pink Chain Campaign on cancer awareness in 2011 in various women colleges in India. Pre-test related to lung cancer was followed by awareness programs. Posttest using the same questionnaire was conducted at the end of interactive session, at 1 year and 6 months.
RESULTS: A total of 156 out of 182 teachers participated in the study (overall response rate was 85.7%). Mean age of the study population was 42.4 years (range-28-59 yrs). There was a significant increase in level of knowledge regarding lung cancer at 6 months and this was sustained at 1 year. Magazines and newspapers were the primary source for information regarding risk factors, signs and symptoms of lung cancer in more than 60% of teachers whereas more than 30% teachers were educated by doctors. At post-awareness after 1 year and 6 months, there was a significant change in alcohol and smoking habits. The main reasons for not undergoing screening tests are: ignorance (50%), lethargic attitude (44.8 %) and lack of time (34.6 %).
CONCLUSION: Knowledge about lung cancer was very low among teachers. Overall awareness of risk factors, signs and symptoms, and screening modalities of lung cancer have improved after 1 year along with practices related to smoking and alcohol consumption. There was a significant improvement in people undergoing regular check-up's. Improved means of communication, access to information and effective warnings about cigarette smoking are necessary to increase public awareness. To ensure the adoption of safe practices in the lifestyle of people

who smoke and consume alcohol, awareness programmes such as the pink chain campaign should be conducted regularly, frequently and more widely in various areas of India.

133: Sharma N, Sankaran P, Agarwal T, Arora T, Chawla B, Titiyal JS, Tandon R, Satapathy G, Vajpayee RB. Evaluation of Intracameral Amphotericin B in the Management of Fungal Keratitis: Randomized Controlled Trial. Ocul Immunol Inflamm. 2015 Sep 23:1-5. [Epub ahead of print] PubMed PMID: 26400628.

PURPOSE: To evaluate the efficacy and safety of intracameral amphotericin B (ICAMB) in the management of fungal keratitis.
METHODS: In total, 45 eyes with smear-confirmed fungal keratitis with hypopyon were randomized into three treatment groups: Group I (topical antifungal treatment + oral antifungal); Group II (topical antifungal treatment + ICAMB + oral antifungal); and Group III (topical antifungal treatment + drainage of hypopyon + ICAMB + oral antifungal). The main outcome measures were treatment success rate, time to heal, visual acuity gain, and presence of complications.
RESULTS: There were no differences in the treatment success rates ($p = 0.66$), time to healing ($p = 0.18$), or mean final visual acuity (logMAR) ($p = 0.8$) between the three groups. The major complication observed was increased incidence of cataract in group III (40%), though it was statistically insignificant.
CONCLUSIONS: ICAMB does not offer any benefit over topical antifungal therapy when performed alone or associated with drainage of hypopyon.

134: Sharma N, Bandivadekar P, Agarwal T, Shah R, Titiyal JS. Incision-Site Descemet Membrane Detachment During and After Phacoemulsification: Risk Factors and Management. Eye Contact Lens. 2015 Sep;41(5):273-6. doi: 10.1097/ICL.0000000000000120. PubMed PMID: 26322816.

OBJECTIVE: To evaluate the occurrence of localized incision-site Descemet membrane detachment (DMD) during and after phacoemulsification and to study its relationship with phacoemulsification parameters.
METHODS: Forty-three, consecutive uneventful cases of phacoemulsification through 2.8-mm clear corneal incision were included in this prospective study. Preoperatively, the grade of cataract was assessed. The phacoemulsification parameters noted were phacoemulsification time, aspiration time, cumulative dissipated energy (CDE), ultrasound time, and total fluid volume. Anterior segment optical coherence tomography (AS-OCT) was performed on postoperative days 1 and 7 to study the course of the incision-site DMD.
RESULTS: Fourteen of 43 cases (32%) showed localized incision-site DMD either intraoperatively or on AS-OCT on the first postoperative day. Of these, nine cases were detected intraoperatively, and six cases were detected on AS-OCT on the first postoperative day. All cases were of planar type and resolved spontaneously. A single case showed a concurrent DMD involving central cornea, which resolved without any surgical intervention. The occurrence of DMD was significantly higher in those with the total ultrasound time greater than 60 sec ($P=0.038$) (odds ratio: 7.639). The CDE was higher in cases with DMD; however, the result was not statistically significant ($P=0.062$). Torsional equivalent in level-3, total torsional time, equivalent torsional time, aspiration time, and the total fluid volume were comparable ($P>0.05$) between cases with and without incision-site DMD.
CONCLUSION: Postphacoemulsification incision-site DMD may occur in up to one third of cases and is associated with increase in the total ultrasound time.

135: Sharma N, Gupta S, Maharana P, Shanmugam P, Nagpal R, Vajpayee RB. Anterior Segment Optical Coherence Tomography-Guided Management Algorithm for Descemet Membrane Detachment After Intraocular Surgery. Cornea. 2015 Sep;34(9):1170-4. doi: 10.1097/ICO.0000000000000514. PubMed PMID: 26114823.

PURPOSE: To evaluate the role of anterior segment optical coherence tomography

(ASOCT) in the detection and management of Descemet membrane detachment (DMD) in cases of persistent corneal edema after intraocular surgery. An ASOCT-guided new algorithm for the management of such DMDs is described.
METHODS: Thirty-seven consecutive cases of persistent corneal edema of more than 2-week duration after intraocular surgery were included. All cases referred had no response to medical therapy. ASOCT was performed in all eyes. DMDs that were in the superior half of the cornea with a planar configuration alone were managed using intracameral air, and those with scrolled edges were managed using intracameral 14% perfluoropropane (C3F8). DMDs that were in the inferior half of the cornea with planar or scrolled edges were managed using intracameral C3F8 injection. The parameters evaluated were the type and morphology of DMD, resolution of DMD, and best-corrected visual acuity.
RESULTS: Using ASOCT, DMD was found to be present in 25 eyes. All cases had planar edges, and 52% (13/25) cases had scrolled edges. In 48% (12/25) cases, DMD was peripheral. Descemetopexy with intracameral air or 14% C3F8 gas showed resolution in all cases with the mean time to resolution being 16.0 ± 7.1 days.
CONCLUSIONS: ASOCT is a useful tool for timely diagnosis, characterization, and management of DMD in cases of nonresolving postoperative corneal edema. A new algorithm for intracameral injection of air or C3F8 in these cases helps to defer corneal transplantation.

136: Sharma P, Gupta N, Chowdhury MR, Phadke SR, Sapra S, Halder A, Ghosh M, Kabra M. Williams-Beuren Syndrome: Experience of 43 Patients and a Report of an Atypical Case from a Tertiary Care Center in India. Cytogenet Genome Res. 2015;146(3):187-94. doi: 10.1159/000439205. Epub 2015 Sep 10. PubMed PMID: 26352091.

Williams-Beuren syndrome (WBS) or Williams syndrome (OMIM 194050) is a multisystem disorder manifested by neurodevelopmental delay and is caused by a hemizygous deletion of ~1.5-1.8 Mb in the 7q11.23 region. Clinical features include cardiovascular anomalies (mainly supravalvular aortic stenosis), peripheral pulmonary stenosis, distinctive facies, intellectual disability (usually mild), unique personality characteristics, and growth and endocrine abnormalities. Clinical diagnostic criteria are available for WBS; however, the mainstay of diagnosis is the detection of the contiguous gene deletion. Although FISH remains the most widely used laboratory test, the diagnosis can also be established by means of qPCR, MLPA, microsatellite marker analysis, and chromosomal microarray (CMA). We evaluated the utility of MLPA to detect deletion/duplication in the 7q11.23 region in 43 patients suspected to have WBS using MLPA kits for microdeletion syndromes. A hemizygous deletion in the 7q11.23 region was found in 41 (95.3%) patients using MLPA. One patient had an atypical deletion detected by CMA. During the initial period of this study, the results of 12 patients tested by MLPA were also confirmed by FISH. Compared to FISH and CMA, MLPA is a cheaper, high-throughput, less labor-intensive and less time-consuming technique for the diagnosis of WBS. Although CMA is expensive and labor-intensive, its effectiveness is demonstrated to detect an atypical deletion and to delineate the breakpoints.

137: Sikary AK, Behera C, Murty OP, Rautji R. Hands Tied with Bag Full of Books in Suicidal Hanging. J Forensic Sci. 2015 Sep 9. doi: 10.1111/1556-4029.12930. [Epub ahead of print] PubMed PMID: 26352727.

Hanging deaths associated with binding of limbs, masking of a face, and gagging are always suspicious. In suicidal hanging, the victim uses these added techniques to prevent him from backing out of his decision and to ensure death. However, binding of limbs and adding extra weight to the suspension in hanging are not reported. Herein, we report a case where the victim tied a bag containing books weighing 7 kg (15.4 lbs) to both his hands during hanging. The forensic specialist must be aware of the unusual presentation of suicidal hanging which may suggest foul play. The manner of death must be established after detailed

analysis of circumstantial evidence, information obtained from the witnesses, complete autopsy, and toxicological examination.

138: Singh A, Seth R, Pai G, Dawman L, Satapathy A. Mesenchymal Hamartoma of Chest Wall in an Infant: Mimicking Persistent Pneumonia. J Clin Diagn Res. 2015 Sep;9(9):SD03-4. doi: 10.7860/JCDR/2015/14413.6486. Epub 2015 Sep 1. PubMed PMID: 26500976; PubMed Central PMCID: PMC4606305.

Mesenchymal Hamartoma of the chest wall (MHCW) is a very rare benign tumour. They are usually discovered in infancy. Spontaneous regression is known to occur in this benign condition. Management is surgical removal of mass if respiratory compromise is present. Conservative management is preferred modality in asymptomatic children as malignant transformation is not reported. Herein, we present a case of MHCW in a 5 month old infant presenting with acute respiratory distress with history of respiratory problem at 3 months of age. Child was suspected to have persistent pneumonia in view of radiological findings. Child's respiratory distress improved with antibiotics and bronchodilators. Respiratory symptoms in MHCW are due to extrinsic compression of lung parenchyma. Present case had respiratory symptoms with persistent radiological findings leading to suspicion of persistent pneumonia. His respiratory symptoms and exacerbation on follow up was attributed to hyper reactive airway disease and MHCW was managed conservatively. The non-neoplastic nature, characteristic presentation, histopathology, imaging modality and management options of MHCW are discussed.

139: Singh HN, Rajeswari MR. Gene regulation by long purine tracks in brain related diseases. Data Brief. 2015 Sep 4;5:218-25. doi: 10.1016/j.dib.2015.08.024. eCollection 2015 Dec. PubMed PMID: 26543885; PubMed Central PMCID: PMC4589756.

Purine repeats are randomly distributed in the human genome, however, they show potential role in the transcriptional deregulation of genes. Presence of long tracks of purine repeats in the genome can disturb its integrity and interfere with the cellular behavior by introducing mutations and/or triple stranded structure formation in DNA. Our data revealed interesting finding that a majority of genes carrying purine repeats, of length $n \geq 200$, were down regulated and found to be linked with several brain related diseases [1]. The unique feature of the purine repeats found in the present study clearly manifests their significant application in developing therapeutics for neurological diseases.

140: Singh L, Singh G, Bhardwaj S, Sinha A, Bagga A, Dinda A. Dense Deposit Disease Mimicking a Renal Small Vessel Vasculitis. J Am Soc Nephrol. 2016 Jan;27(1):59-62. doi: 10.1681/ASN.2015020187. Epub 2015 Sep 11. PubMed PMID: 26361799.

Dense deposit disease is caused by fluid-phase dysregulation of the alternative complement pathway and frequently deviates from the classic membranoproliferative pattern of injury on light microscopy. Other patterns of injury described for dense deposit disease include mesangioproliferative, acute proliferative/exudative, and crescentic GN. Regardless of the histologic pattern, C3 glomerulopathy, which includes dense deposit disease and C3 GN, is defined by immunofluorescence intensity of C3c two or more orders of magnitude greater than any other immune reactant (on a 0-3 scale). Ultrastructural appearances distinguish dense deposit disease and C3 GN. Focal and segmental necrotizing glomerular lesions with crescents, mimicking a small vessel vasculitis such as ANCA-associated GN, are a very rare manifestation of dense deposit disease. We describe our experience with this unusual histologic presentation and distinct clinical course of dense deposit disease, discuss the pitfalls in diagnosis, examine differential diagnoses, and review the relevant literature.

141: Singh M. Neuromodulation in chronic headache. Neurol India. 2015 Sep-Oct;63(5):650-1. doi: 10.4103/0028-3886.166559. PubMed PMID: 26448216.

142: Singh MK, Singh L, Pushker N, Sen S, Sharma A, Chauhan FA, Kashyap S. Correlation of High Mobility Group Box-1 Protein (HMGB1) with Clinicopathological Parameters in Primary Retinoblastoma. Pathol Oncol Res. 2015 Sep;21(4):1237-42. doi: 10.1007/s12253-015-9951-6. Epub 2015 Jun 30. PubMed PMID: 26118980.

HMGB1 is considered to be DNA chaperone as it binds without any specificity. It is the structural protein which alters nuclear homeostasis and genomic stability of chromatin. Its role in retinoblastoma (Rb) remains unclear. The aim of the present study was to evaluate the expression of HMGB1 protein in primary enucleated retinoblastomas. Expression of HMGB1 in 69 prospective cases of primary retinoblastoma were assessed by immunohistochemistry and reverse transcriptase PCR (RT-PCR) technique and correlated with clinicopathological parameters. Immunohistochemical staining revealed expression of HMGB1 in 55.07 % (38/69) cases. Semi-quantitative RT-PCR was performed on 31 fresh tumor tissues. mRNA expression was observed in 77.41 % (24/31) cases. Expression of HMGB1 was statistically significant with poor tumor differentiation (p = 0.0440) & optic nerve invasion (p = 0.0128). HMGB1 expression was frequently seen in poorly differentiated tumors and those with histopathological high risk factors. Therefore, HMGB1 may contribute to tumor invasiveness and could serve as a poor prognostic marker in Rb.

143: Singh N, Sharma A, Sazawal S, Ahuja A, Upadhyay A, Mahapatra M, Saxena R. Prevalence of JAK2V617F mutation in deep venous thrombosis patients and its clinical significance as a thrombophilic risk factor: Indian perspective. Clin Appl Thromb Hemost. 2015 Sep;21(6):579-83. doi: 10.1177/1076029615578166. Epub 2015 Mar 23. PubMed PMID: 25804613.

Venous thromboembolism is known to be a complex interaction of genetic and acquired factors leading to thrombosis. JAK2V617F mutation is believed to contribute to a thrombophilic phenotype, possibly through enhanced leukocyte-platelet interactions in myeloproliferative neoplasms (MPNs). Several studies have focused on the importance of screening for JAK2V617F mutation in patients with splanchnic venous thrombosis (VT) for the detection of nonovert MPNs. The role of JAK2V617F mutation in VT outside the splanchnic region is still widely unsettled. The primary aim of this study was to find out the prevalence of JAK2V617F mutation in patients with deep venous thrombosis (DVT), its clinical significance as a prothrombotic risk factor, and its possible interactions with other genetic thrombophilic risk factors. A total of 148 patients with idiopathic, symptomatic DVT were evaluated. Median age of presentation was 32 years (range 15-71 years) with a sex ratio of 1.3:1. Overall, the most common genetic prothrombotic factor was factor V Leiden mutation, found in 10.8% (16 of 148) of patients who also showed strong association with increased risk of thrombosis (odds ratio 5.94, confidence interval 1.33-26.4, P = .019). Deficiencies in protein C, protein S, and antithrombin were seen in 8 (5.4%), 10 (6.7%), and 8 (5.4%) patients, respectively. It was observed that the frequency of JAK2V617F mutation was lower in Indian patients, and it also showed weaker association with risk of thrombosis, at least in cases of venous thrombosis outside the splanchnic region.

144: Singh P, Arora S, Lal S, Strand TA, Makharia GK. Risk of Celiac Disease in the First- and Second-Degree Relatives of Patients With Celiac Disease: A Systematic Review and Meta-Analysis. Am J Gastroenterol. 2015 Nov;110(11):1539-48. doi: 10.1038/ajg.2015.296. Epub 2015 Sep 29. Review. PubMed PMID: 26416192.

OBJECTIVES: First-degree relatives (FDRs) of patients with celiac disease (CD) are at high risk for CD and prevalence among them varies from 1.6 to 38%. The

risk of having CD among FDRs if the FDR is sister, brother, mother, father, son, or daughter of index patient with CD is not known. We conducted a meta-analysis and calculated pooled prevalence of CD among FDRs, second-degree relatives (SDRs), and specific relations with index patient.
METHODS: On search of literature, 2,259 articles appeared of which 54 articles were included in this meta-analysis. Diagnosis of CD was based on standard criteria.
RESULTS: Pooled prevalence of CD was 7.5% (95% confidence interval (CI) 6.3%, 8.8%) in 10,252 FDRs and 2.3% (95% CI 1.3%, 3.8%) in 642 SDRs. Pooled prevalence of CD was highest in siblings (8.9%), followed by offsprings (7.9%) and parents (3.0%). Female FDRs had higher prevalence than male FDRs (8.4% vs. 5.2%, P=0.047). While sisters and daughters of index patient had the highest risk of having CD (1 in 7 and 1 in 8, respectively), the risk was 1 in 13 in sons, 1 in 16 in brothers, 1 in 32 in mothers, and 1 in 33 in fathers. There were also differences in the pooled prevalence of CD in FDRs according to their geographic location.
CONCLUSIONS: Pooled prevalence of CD among FDRs is 7.5% and varies considerably with their relationship with the index patient. The risk of CD in FDRs also varies according to gender and geographical location.

145: Singh R, Baby B, Damodaran N, Srivastav V, Suri A, Banerjee S, Kumar S, Kalra P, Prasad S, Paul K, Anand S, Kumar S, Dhiman V, Ben-Israel D, Kapoor KS. Design and Validation of an Open-Source, Partial Task Trainer for Endonasal Neuro-Endoscopic Skills Development: Indian Experience. World Neurosurg. 2015 Sep 26. pii: S1878-8750(15)01208-5. doi: 10.1016/j.wneu.2015.09.045. [Epub ahead of print] PubMed PMID: 26410199.

BACKGROUND: Box trainers are ideal simulators, given they are inexpensive, accessible, and use appropriate fidelity.
OBJECTIVE: The development and validation of an open-source, partial task simulator that teaches the fundamental skills necessary for endonasal skull-base neuro-endoscopic surgery.
METHODS: We defined the Neuro-Endo-Trainer (NET) SkullBase-Task-GraspPickPlace with an activity area by analyzing the computed tomography scans of 15 adult patients with sellar suprasellar parasellar tumors. Four groups of participants (Group E, n = 4: expert neuroendoscopists; Group N, n =19: novice neurosurgeons; Group R, n = 11: neurosurgery residents with multiple iterations; and Group T, n = 27: neurosurgery residents with single iteration) performed grasp, pick, and place tasks using NET and were graded on task completion time and skills assessment scale score.
RESULTS: Group E had lower task completion times and greater skills assessment scale scores than both Group N and R ($P \leq 0.03$, 0.001). The performance of Groups N and R was found to be equivalent; in self-assessing neuro-endoscopic skill, the participants in these groups were found to have equally low pretraining scores (4/10) with significant improvement shown after NET simulation (6, 7 respectively). Angled scopes resulted in decreased scores with tilted plates compared with straight plates (30° $P \leq 0.04$, 45° $P \leq 0.001$). With tilted plates, decreased scores were observed when we compared the 0° with 45° endoscope (right, $P \leq 0.008$; left, $P \leq 0.002$).
CONCLUSIONS: The NET, a face and construct valid open-source partial task neuroendoscopic trainer, was designed. Presimulation novice neurosurgeons and neurosurgical residents were described as having insufficient skills and preparation to practice neuro-endoscopy. Plate tilt and endoscope angle were shown to be important factors in participant performance. The NET was found to be a useful partial-task trainer for skill building in neuro-endoscopy.

146: Singh S, Kumar P, Sharma VK. Cetirizine-induced urticaria masquerading as multiple drug intolerance syndrome. Indian J Dermatol Venereol Leprol. 2015 Sep-Oct;81(5):537-9. doi: 10.4103/0378-6323.162338. PubMed PMID: 26261146.

147: Singh S, Singh A, Prajapati S, Kabra SK, Lodha R, Mukherjee A, Singh V, Hesseling AC, Grewal HM; Delhi Pediatric TB study group. Xpert MTB/RIF assay can be used on archived gastric aspirate and induced sputum samples for sensitive diagnosis of paediatric tuberculosis. BMC Microbiol. 2015 Sep 29;15:191. doi: 10.1186/s12866-015-0528-z. PubMed PMID: 26420261; PubMed Central PMCID: PMC4589030.

BACKGROUND: Tuberculosis (TB) in children is neglected, mainly due to lack of sensitive diagnostic tools. Recently Xpert MTB/RIF assay has revolutionized the diagnostic field, but its usefulness in pediatric TB has not been reported from India and no report is available on its use on long term archived samples.
METHODS: We recruited 130 pediatric patients with probable intrathoracic tuberculosis and their gastric aspirate (GA) and induced sputum (IS) samples on 2 consecutive days were collected between January 2009 and December 2012. All samples (n = 520) were subjected to smear examination, BACTEC-MGIT culture and in-house multiplex PCR. An aliquot of each sample was stored at -80 °C and tested in Xpert MTB/RIF assay in 2013.
RESULTS: Sample wise and patient wise detection rate of smear microscopy was 4.4 % and 10 %, while for BACTEC-MGIT culture this rate was 24.4 % and 46.9 %, respectively. Of the 130 day 1 GA samples, 31.5 % and 27.7 % day 2 GA samples were culture positive. Only 17.7 % GA samples were positive on both days. Of the 130 IS samples collected on day 1 and day 2, 15.4 % and 23.1 % samples were culture positive. A combination of GA and IS yielded best results. Combining both GA and IS, the overall sensitivity of Xpert MTB/RIF on smear and culture positive samples was 95.6 %. In smear negative and culture positive samples its sensitivity was 62.5 %. The duration of sample storage impacted the Xpert MTB/RIF test performance (p = 0.0001). In smear positive samples stored for 650-849 days, its sensitivity was 85.7 % and 77.1 % for IS and GA samples which dropped to 33.3 % and 50 %, respectively, if stored for more than 1050 days.
DISCUSSION: Confirmatory diagnosis of tuberculosis particularly in children is a medical challenge. No laboratory or radiological test can reach to a satisfactory level of diagnostic sensitivity. However, in this study we found that combination of multiple samples and multiple diagnostic tests can give much better yield, though not optimum. In present study, combination of 2 gastric aspirates (GA) and 2 induced sputum (IS) samples collected on two consecutive days, and tested on three diagnostic methods yielded a significantly high detection rate. Despite long term storage, the overall sensitivity of Xpert MTB/RIF on smear and -culture positive samples remained very high. But after storing these samples under subfreezing conditions the sensitivity of Xpert MTB/RIF decreased significantly. This is expected because even if the sample is smear and culture positive, the count of surviving mycobacteria goes down, after several years this count can reach to a undetectable level.
CONCLUSION: This report shows that smear and culture positive samples stored at subfreezing conditions for several years can be used in the Xpert MTB/RIF assay, while maintaining appreciable diagnostic test sensitivity and specificity.

148: Singhal R, Annarapu GK, Pandey A, Chawla S, Ojha A, Gupta A, Cruz MA, Seth T, Guchhait P. Hemoglobin interaction with GP1bÎ± induces platelet activation and apoptosis: a novel mechanism associated with intravascular hemolysis. Haematologica. 2015 Dec;100(12):1526-33. doi: 10.3324/haematol.2015.132183. Epub 2015 Sep 4. PubMed PMID: 26341739; PubMed Central PMCID: PMC4666328.

Intravascular hemolysis increases the risk of hypercoagulation and thrombosis in hemolytic disorders. Our study shows a novel mechanism by which extracellular hemoglobin directly affects platelet activation. The binding of Hb to glycoprotein1bα activates platelets. Lower concentrations of Hb (0.37-3 μM) significantly increase the phosphorylation of signaling adapter proteins, such as Lyn, PI3K, AKT, and ERK, and promote platelet aggregation in vitro. Higher concentrations of Hb (3-6 μM) activate the pro-apoptotic proteins Bak, Bax, cytochrome c, caspase-9 and caspase-3, and increase platelet clot formation. Increased plasma Hb activates platelets and promotes their apoptosis, and plays a

crucial role in the pathogenesis of aggregation and development of the procoagulant state in hemolytic disorders. Furthermore, we show that in patients with paroxysmal nocturnal hemoglobinuria, a chronic hemolytic disease characterized by recurrent events of intravascular thrombosis and thromboembolism, it is the elevated plasma Hb or platelet surface bound Hb that positively correlates with platelet activation.

149: Singla R, Gupta Y, Kalra S. Musculoskeletal effects of diabetes mellitus. J Pak Med Assoc. 2015 Sep;65(9):1024-7. Review. PubMed PMID: 26338757.

People with diabetes show higher prevalence of rheumatic diseases as compared to general population. Diabetes affects all components of musculoskeletal system viz. muscles, bones and connective tissue. Diabetic myonecrosis is a unique condition seen only in people with diabetes. Other diseases include amyotrophy, osteoporosis and increased fracture risk, carpal tunnel syndrome, adhesive capsulitis of shoulder, trigger finger and limited joint mobility.- Like all other chronic diseases, musculoskeletal diseases impact quality of life negatively.

150: Srivastava MV, Dash D. History of neurology at All India Institute of Medical Sciences. Neurol India. 2015 Sep-Oct;63(5):751-61. doi: 10.4103/0028-3886.166553. PubMed PMID: 26448236.

All India Institute of Medical Sciences (AIIMS), New Delhi is considered as the apex healthcare institute of the country. The Department of Neurology was established in the 1960's and continues to be a leader in the country, in providing quality health care, in teaching, and also in conducting cutting edge research. The article traces the history of the Department of Neurology at AIIMS from its inception to the present day.

151: Sudharsan S, Subhapradha N, Seedevi P, Shanmugam V, Madeswaran P, Shanmugam A, Srinivasan A. Antioxidant and anticoagulant activity of sulfated polysaccharide from Gracilaria debilis (Forsskal). Int J Biol Macromol. 2015 Nov;81:1031-8. doi: 10.1016/j.ijbiomac.2015.09.046. Epub 2015 Sep 28. PubMed PMID: 26424206.

Sulfated polysaccharide was isolated from Gracilaria debilis and purified through gel chromatography and their molecular weight was determined through AGE and PAGE. The total sugars in the crude, fractionated and purified polysaccharide were estimated as 52.65%, 59.70% and 67.60%, respectively. The ash and moisture content of crude and purified polysaccharide was found to be 14.2% and 23.5% and the polysaccharide was free from protein contamination. The sulfate and uronic acid contents in the crude, fractionated and purified were estimated as 14.08%, 15.33% and 16.01% and 10.12%, 13.56%, 16.70%. The elemental composition including carbon (crude - 23.12%, purified - 21.05%), hydrogen (crude - 3.4%, purified - 4.13%) and nitrogen (crude - 1.22%, purified - 0.56%) were also analyzed. The anticoagulant activity of the sulfated polysaccharide through APTT and PT was estimated at 14.11 and 8.23IU/mg. The purified polysaccharide with the molecular mass of 20kDa showed highest antioxidant activity (38.57%, 43.48% and 38.88%) in all the assays tested such as DPPH hydroxyl radical, superoxide radical, hydroxyl radical scavenging activities and the structural property was analyzed through FT-IR and (1)H NMR spectrum. The results together suggest that the isolated low molecular weight sulfated polysaccharide will demonstrate as a enormously available alternative natural source of antioxidant for industrial uses.

152: 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. 2015 Sep 9.

[Epub ahead of print] 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.

153: Talwar S, Bhoje A, Airan B. A Simple Technique for Closing Multiple Muscular and Apical Ventricular Septal Defects. J Card Surg. 2015 Sep;30(9):731-4. doi: 10.1111/jocs.12590. Epub 2015 Jun 28. PubMed PMID: 26118439.

BACKGROUND: Multiple ventricular septal defects (VSDs) are difficult to close. In this report, we describe a simple and safe technique of closing multiple muscular and apical VSDs.
METHODS: Between January 2010 and December 2013, 52 patients with a muscular VSD either in isolation or in association with other congenital heart disease underwent surgery using this technique in which a black silk thread was passed through the suspected VSD opening into the left ventricle and brought out through the mitral valve and the interatrial septum. Sutures were placed around the silk thread to close the VSD.
RESULTS: Out of 52 patients, 34 were male; age ranged from 45 days to 5.5 years. In addition to the large subaortic/lage muscular VSD, three additional VSDs were present in 34 patients, two additional VSDs were present in 13 patients, and five patients had "Swiss Cheese septum." The VSDs were mid-muscular in 35 patients and were apical in 17 patients. Eleven patients had associated complex lesions. Intraoperative transesophageal echocardiograms did not reveal any significant residual shunt in any of these patients. There was no step-up on oximetry. There was one hospital death due to sepsis. Follow-up was available in 48 patients; three patients were lost to follow-up. At follow-up, no patient had a residual VSD.
CONCLUSION: The biventricular approach through trans-right atrial, trans-interatrial septum using a thread through the hole method for closing multiple muscular VSD is effective with no persistent residual defects.

154: Talwar S, Patel K, Juneja R, Choudhary SK, Airan B. Early postoperative arrhythmias after pediatric cardiac surgery. Asian Cardiovasc Thorac Ann. 2015 Sep;23(7):795-801. doi: 10.1177/0218492315585457. Epub 2015 May 12. PubMed PMID: 25972292.

BACKGROUND: This prospective study proposed to determine the incidence, risk

factors, and management protocols for early postoperative arrhythmias after pediatric cardiac surgery, with focus on outcomes, using a uniform protocol, and also to see if children operated on at a later age have different issues from those operated on earlier.
METHODS: Of 224 consecutive pediatric patients undergoing cardiac surgery from September 2013 to July 2014, 24 were excluded because their procedures were performed without cardiopulmonary bypass.
RESULTS: The median age was 24 months (mean 50.1±62.4 months, range 0.5-216 months). Fifteen (7.5%) patients developed arrhythmia, the most common was junctional ectopic tachycardia (n=7, 46.6%) followed by supraventricular tachycardia (n=5, 33.3%). All junctional ectopic tachycardias occurred within 24h of intensive care unit admission. Of the 7 patients with junctional ectopic tachycardia, 5 responded to conventional measures and 2 required amiodarone infusion. There was a significant longer cardiopulmonary bypass time in patients with arrhythmias compared to those without arrhythmias.
CONCLUSION: We observed a very low incidence of arrhythmias, particularly junctional ectopic tachycardia, after open heart surgery in children. Other than a longer cardiopulmonary bypass time, no specific predictors were identified. It appears that the cause of arrhythmias following pediatric cardiac surgery is multifactorial and needs further study with a greater number of patients.

155: Talwar S, Kumar R, Bhoje A, Choudhary SK, Airan B. Anatomical Repair of an Unusual Combination of Tetralogy of Fallot and Atrioventricular Septal Defect With Unroofed Coronary Sinus. J Card Surg. 2015 Nov;30(11):849-52. doi: 10.1111/jocs.12638. Epub 2015 Sep 17. PubMed PMID: 26377366.

A 30-month-old female was admitted with recurrent spells and severe cyanosis. Preoperative echocardiography was diagnostic of tetralogy of Fallot with an atrial septal defect of the primum type, unroofed coronary sinus, and a left superior vena cava draining into the left atrium. At surgery the patient was found to have a complete atrioventricular septal defect in addition to these anomalies. Complete anatomical correction was achieved through the right atrial approach.

156: Teotia P, Mohanty S, Kabra M, Gulati S, Airan B. Enhanced Reprogramming Efficiency and Kinetics of Induced Pluripotent Stem Cells Derived from Human Duchenne Muscular Dystrophy. PLoS Curr. 2015 Sep 3;7. pii: ecurrents.md.a77c2f0516a8cb4809ffad5963342905. doi: 10.1371/currents.md.a77c2f0516a8cb4809ffad5963342905. PubMed PMID: 26579330; PubMed Central PMCID: PMC4638229.

The generation of disease-specific induced pluripotent stem cells (iPSCs) holds a great promise for understanding disease mechanisms and for drug screening. Recently, patient-derived iPSCs, containing identical genetic anomalies of the patient, have offered a breakthrough approach to studying Duchenne muscular dystrophy (DMD), a fatal disease caused by the mutation in the dystrophin gene. However, development of scalable and high fidelity DMD-iPSCs is hampered by low reprogramming efficiency, the addition of expensive growth factors and slow kinetics of disease-specific fibroblasts. Here, we show an efficient generation of DMD-iPSCs on bFGF secreting human foreskin fibroblast feeders (I-HFF) by employing single polycistronic lentiviral vector for delivering of transcription factors to DMD patient-specific fibroblast cells. Using this method, DMD-iPSCs generated on I-HFF feeders displayed pluripotent characteristics and disease genotype with improved reprogramming efficiency and kinetics over to mouse feeders. Moreover, we were able to maintain disease-specific iPSCs without additional supplementation of bFGF on I-HFF feeders. Our findings offer improvements in the generation of DMD-iPSCs and will facilitate in understanding of pathological mechanisms and screening of safer drugs for clinical

intervention.KEY WORDS: Duchenne Muscular Dystrophy, Reprogramming, Induced pluripotent Stem Cells, Immortalized Human Feeder, Basic Fibroblast Growth Factor, Stem Cell Cassette.

157: Tian M, Ajay VS, Dunzhu D, Hameed SS, Li X, Liu Z, Li C, Chen H, Cho K, Li R, Zhao X, Jindal D, Rawal I, Ali MK, Peterson ED, Ji J, Amarchand R, Krishnan A, Tandon N, Xu LQ, Wu Y, Prabhakaran D, Yan LL. A Cluster-Randomized, Controlled Trial of a Simplified Multifaceted Management Program for Individuals at High Cardiovascular Risk (SimCard Trial) in Rural Tibet, China, and Haryana, India. Circulation. 2015 Sep 1;132(9):815-24. doi: 10.1161/CIRCULATIONAHA.115.015373. Epub 2015 Jul 17. PubMed PMID: 26187183; PubMed Central PMCID: PMC4558306.

BACKGROUND: In rural areas in China and India, the cardiovascular disease burden is high but economic and healthcare resources are limited. This study (the Simplified Cardiovascular Management Study [SimCard]) aims to develop and evaluate a simplified cardiovascular management program delivered by community health workers with the aid of a smartphone-based electronic decision support system.
METHODS AND RESULTS: The SimCard study was a yearlong cluster-randomized, controlled trial conducted in 47 villages (27 in China and 20 in India). Recruited for the study were 2086 individuals with high cardiovascular risk (aged ≥40 years with self-reported history of coronary heart disease, stroke, diabetes mellitus, and/or measured systolic blood pressure ≥160 mm Hg). Participants in the intervention villages were managed by community health workers through an Android-powered app on a monthly basis focusing on 2 medication use and 2 lifestyle modifications. In comparison with the control group, the intervention group had a 25.5% ($P<0.001$) higher net increase in the primary outcome of the proportion of patient-reported antihypertensive medication use pre- and post-intervention. There were also significant differences in certain secondary outcomes: aspirin use (net difference: 17.1%; $P<0.001$) and systolic blood pressure (-2.7 mm Hg; $P=0.04$). However, no significant changes were observed in the lifestyle factors. The intervention was culturally tailored, and country-specific results revealed important differences between the regions.
CONCLUSIONS: The results indicate that the simplified cardiovascular management program improved quality of primary care and clinical outcomes in resource-poor settings in China and India. Larger trials in more places are needed to ascertain the potential impacts on mortality and morbidity outcomes.
CLINICAL TRIAL REGISTRATION: URL: http://www.clinicaltrials.gov. Unique identifier: NCT01503814.

158: Tiwari V, Ansari T, Mittal S, Sharma P, Nalwa A. Giant cell tumour of tendon sheath with simultaneous two tendon involvement of the foot treated with excision of the tumour and reconstruction of the flexor retinaculum using tibialis posterior tendon in a paediatric patient: A rare case report. Foot Ankle Surg. 2015 Dec;21(4):e60-3. doi: 10.1016/j.fas.2015.08.004. Epub 2015 Sep 25. PubMed PMID: 26564735.

Giant cell tumour of tendon sheath is a benign soft tissue tumour arising from the tendon sheath. The involvement of foot and ankle by such tumours is relatively rare. Children are not commonly afflicted by this condition. All such tumours are reported to arise either from a single tendon sheath or one joint. We report a case of giant cell tumour of tendon sheath in a 12-year-old child, arising simultaneously from the tendon sheaths of tibialis posterior and flexor digitorum longus tendons, as well as extending into the ankle joint. It was treated by complete excision of the mass along with the tendon sheaths with reconstruction of the flexor retinaculum. The location of the tumour, age of the patient, diffuse nature of the tumour and novel technique of reconstruction of the flexor retinaculum make this case extremely rare and the first to be reported in literature.

159: Tyagi K, Gupta D, Saini E, Choudhary S, Jamwal A, Alam MS, Zeeshan M, Tyagi RK, Sharma YD. Recognition of Human Erythrocyte Receptors by the Tryptophan-Rich Antigens of Monkey Malaria Parasite Plasmodium knowlesi. PLoS One. 2015 Sep 22;10(9):e0138691. doi: 10.1371/journal.pone.0138691. eCollection 2015. PubMed PMID: 26393350; PubMed Central PMCID: PMC4579084.

BACKGROUND: The monkey malaria parasite Plasmodium knowlesi also infect humans. There is a lack of information on the molecular mechanisms that take place between this simian parasite and its heterologous human host erythrocytes leading to this zoonotic disease. Therefore, we investigated here the binding ability of P. knowlesi tryptophan-rich antigens (PkTRAgs) to the human erythrocytes and sharing of the erythrocyte receptors between them as well as with other commonly occurring human malaria parasites.
METHODS: Six PkTRAgs were cloned and expressed in E.coli as well as in mammalian CHO-K1 cell to determine their human erythrocyte binding activity by cell-ELISA, and in-vitro rosetting assay, respectively.
RESULTS: Three of six PkTRAgs (PkTRAg38.3, PkTRAg40.1, and PkTRAg67.1) showed binding to human erythrocytes. Two of them (PkTRAg40.1 and PkTRAg38.3) showed cross-competition with each other as well as with the previously described P.vivax tryptophan-rich antigens (PvTRAgs) for human erythrocyte receptors. However, the third protein (PkTRAg67.1) utilized the additional but different human erythrocyte receptor(s) as it did not cross-compete for erythrocyte binding with either of these two PkTRAgs as well as with any of the PvTRAgs. These three PkTRAgs also inhibited the P.falciparum parasite growth in in-vitro culture, further indicating the sharing of human erythrocyte receptors by these parasite species and the biological significance of this receptor-ligand interaction between heterologous host and simian parasite.
CONCLUSIONS: Recognition and sharing of human erythrocyte receptor(s) by PkTRAgs with human parasite ligands could be part of the strategy adopted by the monkey malaria parasite to establish inside the heterologous human host.

160: Venkataraman V, Anjana RM, Pradeepa R, Deepa M, Jayashri R, Anbalagan VP, Akila B, Madhu SV, Lakshmy R, Mohan V. Stability and reliability of glycated haemoglobin measurements in blood samples stored at -20Â°C. J Diabetes Complications. 2016 Jan-Feb;30(1):121-5. doi: 10.1016/j.jdiacomp.2015.09.014. Epub 2015 Sep 30. PubMed PMID: 26508472.

AIM: To validate the stability of glycated haemoglobin (HbA1c) measurements in blood samples stored at -20°C for up to one month.
METHODS: The study group comprised 142 type 2 diabetic subjects visiting a tertiary centre for diabetes at Chennai city in south India. The HbA1c assay was done on a fasting blood sample using the Bio-Rad Variant machine on Day 0 (day of blood sample collection). Several aliquots were stored at -20°C and the assay was repeated on the 3rd, 7th, 15th, and 30th day after the sample collection. Bland-Altman plots were constructed and variation in the HbA1c levels on the different days was compared with the day 0 level.
RESULTS: The median differences between HbA1c levels measured on Day 0 and the 3rd, 7th, 15th, and 30th day after blood collection were 0.0%, 0.2%, 0.3% and 0.5% respectively. Bland-Altman plot analysis showed that the differences between the day '0' and the different time points tend to get larger with time, but these were not clinically significant.
CONCLUSIONS: HbA1c levels are relatively stable up to 2weeks, if blood samples are stored at -20°C.

161: Venkatesh P, Gogia V, Shah B, Gupta S, Sagar P, Garg S. Patterns of uveitis at the Apex Institute for Eye Care in India: Results from a prospectively enrolled patient data base (2011-2013). Int Ophthalmol. 2015 Sep 25. [Epub ahead

of print] PubMed PMID: 26408195.

The purpose of the study was to identify the clinical and etiological profile of uveitis at the apex institute for eye care in India. This is a prospective, prevalence study. 980 consecutive patients with uveitis referred to uvea clinic, Dr. RP Centre for Ophthalmic Sciences (Ophthalmology division, All India Institute of Medical Sciences). Demographic data of each patient were noted and a thorough ocular examination including slit lamp examination and dilated fundus evaluation was carried out. OCT and fluorescein angiography were undertaken whenever indicated. Uveitis was classified based on the anatomic location of inflammation (IUSG classification). Relevant serological and radiological investigations were obtained based on systemic symptomatology, and if the uveitis was recurrent (even in the absence of systemic symptoms). The presence of a systemic disease was confirmed by obtaining an internist consultation. The main outcome measures include pattern of uveitis according to anatomical classification and the etiology. Out of 980 patients with uveitis, 413 (42.14 %) patients had anterior uveitis, 131 (13.36 %) had intermediate uveitis, 165 (16.83 %) had posterior uveitis, 91 (9.2 %) had panuveitis, 47 (4.7 %) had retinal vasculitis, 22 (2.24 %) had scleritis, 17 (1.7 %) had masquerade syndromes, 8 (0.8 %) had keratouveitis, 22 (2.24 %) had sclerokeratouveitis, 19 (1.9 %) had endophthalmitis and 45 (4.5 %) had other causes of inflammation including trauma and intraocular surgery. Out of all uveitic patients definite etiological correlation could be made out in 225 (23 %) patients; thus 77 % were categorised as idiopathic. Only 9 % of all patients were found to have uveitis with an infectious etiology. Amongst infectious causes of uveitis tuberculosis was the leading cause, accounting for sixty percent of all infectious uveitis (approximately 5 % of overall uveitis). Non-infectious uveitis etiology accounted for more than 90 % of all cases with ankylosing spondylitis being the most common followed by sarcoidosis and juvenile rheumatoid arthritis. Amongst known uveitic syndromes serpiginous like choroidopathy was the most common and was followed by acute posterior placoid pigmented epitheliopathy and Fuch's heterochromic iridocyclitis. Infection, including tuberculosis, is an infrequent cause of uveitis in the study population. Multicentric, collaborative efforts are required to improve levels of clinical evidence and evolve consensus in establishing stringent guidelines for labelling uveitis as being of infectious etiology.

162: Venkatesulu BP, Mallick S, Singh A, Julka PK. Non small cell carcinoma of lung with metachronous breast metastasis and cardiac tamponade: Unusual presentation of a common cancer. J Egypt Natl Canc Inst. 2015 Sep;27(3):165-9. doi: 10.1016/j.jnci.2015.03.006. Epub 2015 Apr 28. PubMed PMID: 25934444.

INTRODUCTION: Lung cancer is the most common cause of cancer related death worldwide. Mostly these tumors present with cough, chest pain weight loss. However, presentation as breast mass and cardiac tamponade is very rare.
RESULTS: We are presenting a rare case of breast metastasis from primary lung cancer. This case presented as cardiac tamponade adding to the diagnostic dilemma.
CONCLUSION: The importance of this case is to highlight molecular profiling as an applicable tool to distinguish extra-mammary metastasis that masquerade as mammary neoplasm thereby preventing unnecessary need of surgery and radiation therapy.

163: Watanabe N, Fettich J, KÃ¼Ã§Ã¼k NÃ–, Kraft O, Mut F, Choudhury P, Sharma SK, Endo K, Dondi M. Modified PISAPED Criteria in Combination with Ventilation Scintigraphic Finding for Predicting Acute Pulmonary Embolism. World J Nucl Med. 2015 Sep-Dec;14(3):178-83. doi: 10.4103/1450-1147.163248. PubMed PMID: 26420988; PubMed Central PMCID: PMC4564920.

This prospective clinical study aimed at assessing three pulmonary scintigraphic

algorithms to detect acute pulmonary embolism (PE): Lung ventilation/perfusion (V/Q) scintigraphy along with modified prospective investigation of pulmonary embolism diagnosis (PIOPED) criteria; lung perfusion scintigraphy along with prospective investigative study of acute pulmonary embolism diagnosis (PISAPED) criteria; and lung perfusion scan in combination with ventilation scan, along with modified PISAPED criteria, which were newly developed. Patients with suspicion of PE were eligible for this study if they had no abnormal chest x-ray. Their diagnostic workup included a clinical assessment, a pulmonary V/Q scintigraphy, and CT pulmonary angiography (CTPA), as well as a clinical outcome assessment over a period of 24 weeks. Referred to the final clinical diagnosis of patients, the sensitivity and specificity of each algorithm were evaluated. The diagnostic performance of each algorithm by the area under the maximum likelihood fitted receiver operating characteristic (ROC) curve was determined. With respect to the PISAPED criteria, the sensitivity was 60.8% and specificity was 87.3%. No patient was classified into nondiagnostic category. The PIOPED criteria showed that the sensitivity was 95.0% and specificity was 88.2%, while 57.4% of the patients were in nondiagnostic category. The areas under the ROC curve constructed from the PISAPED criteria results and the modified PIOPED criteria results were 0.734 and 0.859 ($P < 0.01$), respectively. The modified PISAPED criteria demonstrated that the sensitivity was 83.8% and specificity was 89.1%. No patient was classified into nondiagnostic category. The area under the ROC curve constructed from modified PISAPED criteria was 0.864 ($P < 0.01$). Perfusion scans used with ventilation scans and modified PISAPED criteria may increase the diagnostic accuracy of pulmonary scintigraphy for acute PE, compared with the two major algorithms.

164: Webb G, Mulder BJ, Aboulhosn J, Daniels CJ, Elizari MA, Hong G, Horlick E, Landzberg MJ, Marelli AJ, O'Donnell CP, Oechslin EN, Pearson DD, Pieper EP, Saxena A, Schwerzmann M, Stout KK, Warnes CA, Khairy P. The care of adults with congenital heart disease across the globe: Current assessment and future perspective: A position statement from the International Society for Adult Congenital Heart Disease (ISACHD). Int J Cardiol. 2015 Sep 15;195:326-33. doi: 10.1016/j.ijcard.2015.04.230. Epub 2015 May 1. Review. PubMed PMID: 26056966.

The number of adults with congenital heart disease (CHD) has increased markedly over the past few decades as a result of astounding successes in pediatric cardiac care. Nevertheless, it is now well understood that CHD is not cured but palliated, such that life-long expert care is required to optimize outcomes. All countries in the world that experience improved survival in CHD must face new challenges inherent to the emergence of a growing and aging CHD population with changing needs and medical and psychosocial issues. Founded in 1992, the International Society for Adult Congenital Heart Disease (ISACHD) is the leading global organization of professionals dedicated to pursuing excellence in the care of adults with CHD worldwide. Recognizing the unique and varied issues involved in caring for adults with CHD, ISACHD established a task force to assess the current status of care for adults with CHD across the globe, highlight major challenges and priorities, and provide future direction. The writing committee consisted of experts from North America, South America, Europe, South Asia, East Asia, and Oceania. The committee was divided into subgroups to review key aspects of adult CHD (ACHD) care. Regional representatives were tasked with investigating and reporting on relevant local issues as accurately as possible, within the constraints of available data. The resulting ISACHD position statement addresses changing patterns of worldwide epidemiology, models of care and organization of care, education and training, and the global research landscape in ACHD.

165: Weng J, Retnakaran R, Ariachery C A, Ji L, Meneghini L, Yang W, Woo JT. Short-term intensive insulin therapy at diagnosis in type 2 diabetes: plan for filling the gaps. Diabetes Metab Res Rev. 2015 Sep;31(6):537-44. doi: 10.1002/dmrr.2603. Epub 2014 Nov 18. PubMed PMID: 25196375.

Short-term intensive insulin therapy is unique amongst therapies for type 2 diabetes because it offers the potential to preserve and improve beta-cell function without additional pharmacological treatment. On the basis of clinical experience and the promising results of a series of studies in newly diagnosed patients, mostly in Asian populations, an expert workshop was convened to assess the available evidence and the potential application of short-term intensive insulin therapy should it be advocated for inclusion in clinical practice. Participants included primary care physicians and endocrinologists. We endorse the concept of short-term intensive insulin therapy as an option for some patients with type 2 diabetes at the time of diagnosis and have identified the following six areas where additional knowledge could help clarify optimal use in clinical practice: (1) generalizability to primary care, (2) target population and biomarkers, (3) follow-up treatment, (4) education of patients and providers, (5) relevance of ethnicity, and (6) health economics.

166: Whitlock RP, Devereaux PJ, Teoh KH, Lamy A, Vincent J, Pogue J, Paparella D, Sessler DI, Karthikeyan G, Villar JC, Zuo Y, Avezum Ã , Quantz M, Tagarakis GI, Shah PJ, Abbasi SH, Zheng H, Pettit S, Chrolavicius S, Yusuf S; SIRS Investigators. Methylprednisolone in patients undergoing cardiopulmonary bypass (SIRS): a randomised, double-blind, placebo-controlled trial. Lancet. 2015 Sep 26;386(10000):1243-53. doi: 10.1016/S0140-6736(15)00273-1. PubMed PMID: 26460660.

BACKGROUND: Cardiopulmonary bypass initiates a systemic inflammatory response syndrome that is associated with postoperative morbidity and mortality. Steroids suppress inflammatory responses and might improve outcomes in patients at high risk of morbidity and mortality undergoing cardiopulmonary bypass. We aimed to assess the effects of steroids in patients at high risk of morbidity and mortality undergoing cardiopulmonary bypass.
METHODS: The Steroids In caRdiac Surgery (SIRS) study is a double-blind, randomised, controlled trial. We used a central computerised phone or interactive web system to randomly assign (1:1) patients at high risk of morbidity and mortality from 80 hospital or cardiac surgery centres in 18 countries undergoing cardiac surgery with the use of cardiopulmonary bypass to receive either methylprednisolone (250 mg at anaesthetic induction and 250 mg at initiation of cardiopulmonary bypass) or placebo. Patients were assigned with block randomisation with random block sizes of 2, 4, or 6 and stratified by centre. Patients aged 18 years or older were eligible if they had a European System for Cardiac Operative Risk Evaluation of at least 6. Patients were excluded if they were taking or expected to receive systemic steroids in the immediate postoperative period or had a history of bacterial or fungal infection in the preceding 30 days. Patients, caregivers, and those assessing outcomes were masked to allocation. The primary outcomes were 30-day mortality and a composite of death and major morbidity (ie, myocardial injury, stroke, renal failure, or respiratory failure) within 30 days, both analysed by intention to treat. Safety outcomes were also analysed by intention to treat. This study is registered with ClinicalTrials.gov, number NCT00427388.
FINDINGS: Patients were recruited between June 21, 2007, and Dec 19, 2013. Complete 30-day data was available for all 7507 patients randomly assigned to methylprednisolone (n=3755) and to placebo (n=3752). Methylprednisolone, compared with placebo, did not reduce the risk of death at 30 days (154 [4%] vs 177 [5%] patients; relative risk [RR] 0·87, 95% CI 0·70-1·07, p=0·19) or the risk of death or major morbidity (909 [24%] vs 885 [24%]; RR 1·03, 95% CI 0·95-1·11, p=0·52). The most common safety outcomes in the methylprednisolone and placebo group were infection (465 [12%] vs 493 [13%]), surgical site infection (151 [4%] vs 151 [4%]), and delirium (295 [8%] vs 289 [8%]).
INTERPRETATION: Methylprednisolone did not have a significant effect on mortality or major morbidity after cardiac surgery with cardiopulmonary bypass. The SIRS trial does not support the routine use of methylprednisolone for patients undergoing cardiopulmonary bypass.

FUNDING: Canadian Institutes of Health Research.

167: Wood F, Salam A, Singh K, Day S, Jan S, Prabhakaran D, Rodgers A, Patel A, Thom S, Ward H. Process evaluation of the impact and acceptability of a polypill for prevention of cardiovascular disease. BMJ Open. 2015 Sep 30;5(9):e008018. doi: 10.1136/bmjopen-2015-008018. PubMed PMID: 26423850; PubMed Central PMCID: PMC4593141.

IMPORTANCE: The Use of a Multidrug Pill In Reducing cardiovascular Events (UMPIRE) trial has shown improved adherence with the use of a polypill strategy when compared with usual medications for cardiovascular disease (CVD) prevention. To advance from efficacy to impact, we need a better understanding of why and how such a strategy might be deployed in complex health systems.
OBJECTIVE: To understand, from the perspective of UMPIRE trial participants and professionals, how and why a polypill strategy improves adherence compared with usual care, why improvement is greater in some subgroups, and to explore the acceptability of a polypill strategy among trial participants and healthcare professionals.
DESIGN, SETTING AND PARTICIPANTS: A preplanned process evaluation, based on qualitative interviews, was conducted with a subsample of 102 trial participants and 41 healthcare professionals at the end of the UMPIRE trial in India and Europe.
RESULTS: Most patients contrasted the simplicity of the polypill with usual medications that they found complex and, for many in India, expensive. Patients with low baseline adherence struggled most with complex medication lists, and those without established disease described less motivation to adhere when compared with people who had already been diagnosed with CVD; people in the latter group had already undertaken self-directed measures to adhere to CVD preventive medicines prior to entering the trial. Taking medication was one of many adaptations described by patients; these included dietary changes, stopping smoking and maintaining exercise. Most patients liked the polypill strategy, although some participants and health professionals were concerned that it would provide less tailored therapy for individual needs.
CONCLUSIONS: Adherence to treatment lists with multiple medications is complex and influenced by several factors. Simplifying medication by using a once-daily polypill is one approach to CVD prevention that may enhance adherence. Prescribers should also consider the wide variety of adjustments that individuals need to make to cope with daily medication.

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OBJECTIVE: To compare the effect of combined delayed cord clamping and umbilical cord milking to either of them had done alone, on hematological parameters at 6 weeks of age in term neonates.
STUDY DESIGN: It was a randomized controlled trial, conducted during January to December 2014. Three hundred eligible neonates were randomly allocated to three parallel groups. Primary outcome was hemoglobin and serum ferritin at 6 weeks of age. Data were analyzed using analysis of variance and Kruskal-Wallis test.
RESULTS: Baseline characteristics and hemodynamic parameters were comparable in all the three groups. The median serum ferritin level at 6 weeks was significantly higher in the group receiving both delayed cord clamping and milking the cut cord group (295.49 (233.5 to 346.54) ngml(-1)) as compared with the group that received only milking of the cut cord (184.55 (131.22 to 256.5)

ngml(-1)) or only delayed cord clamping (268.8 (189.4 to 315.44) ngml(-1)).
CONCLUSION: Delayed cord clamping with milking the cut cord improved iron stores at 6 weeks of age in term infants, then either of the two interventions alone.

169: Yadav J, Satapathy AK, Jain V. Addisonian Crisis Due to Antitubercular Therapy. Indian J Pediatr. 2015 Sep;82(9):860. doi: 10.1007/s12098-015-1742-2. Epub 2015 Mar 14. PubMed PMID: 25772943.

170: Yadav S, Birla S, Marumudi E, Sharma A, Khadgawat R, Khurana ML, Ammini AC. Clinical profile and inheritance pattern of CYP21A2 gene mutations in patients with classical congenital adrenal hyperplasia from 10 families. Indian J Endocrinol Metab. 2015 Sep-Oct;19(5):644-8. doi: 10.4103/2230-8210.163191. PubMed PMID: 26425475; PubMed Central PMCID: PMC4566346.

CONTEXT: Congenital adrenal hyperplasia (CAH) is an autosomal recessive metabolic disorder caused by mutations in the CYP21A2 gene. Genetic diagnosis of 21-OH deficiency causing CAH is more complicated than any other monogenic disorder due to high variability of the locus. The disease has a wide spectrum of clinical variants making it difficult to establish a genotyp-phenotype correlation. Therefore, family studies are necessary to ascertain parental genotype and segregation of the mutant allele among the offspring.
AIM: The present study aimed to identify CYP21A2 gene mutations and analyze the segregation pattern in CAH trios (patients and their parents).
MATERIALS AND METHODS: A total of ten families having at least one CAH child were recruited.
RESULTS: Out of 31 children from ten families, 15 were affected with CAH and 13 of/them (12 females and 1 male) were available for genetic testing. One family had all the children affected with CAH. Compound heterozygous mutations were identified in seven patients (53.8%) whereas p.P30L, In2 and Δ8 bp mutations were present in homozygous state in three (23.1%), two (15.3 %) and one (7.6%) patient respectively.
CONCLUSIONS: In majority of the families, mutant alleles observed in the patients were inherited from the parents whereas three families showed sporadic mutations without any paternal or maternal origin. This indicated their novel occurrence due to misalignment of the parental genes and/or large deletion of the gene. Female preponderance was noted in the CAH families and also among the patients raising the possibility of survival advantage among females.