

B . B . Dikshit Librar
AIIMS
New Delhi

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

1: Abbey P, Kandasamy D, Naranje P. Neonatal Jaundice. *Indian J Pediatr.* 2019 Feb 21. doi: 10.1007/s12098-019-02856-0. [Epub ahead of print] PubMed PMID: 30790186.

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

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

2: Aggarwal A, Gulati P, Garg K. Rare variant of internal carotid artery anatomy. *BMJ Case Rep.* 2019 Feb 11;12(2). pii: bcr-2018-227595. doi: 10.1136/bcr-2018-227595. PubMed PMID: 30755427.

3: Aggarwal S, Bhambri A, Singla V, Dash NR, Sharma A. Adenocarcinoma of oesophagus involving gastro-oesophageal junction following mini-gastric bypass/one anastomosis gastric bypass. *J Minim Access Surg.* 2019 Feb 18. doi: 10.4103/jmas.JMAS_320_18. [Epub ahead of print] PubMed PMID: 30777997.

Mini-gastric bypass/one anastomosis gastric bypass (MGB/OAGB) is an emerging weight loss surgical procedure. There are serious concerns not only regarding the symptomatic biliary reflux into the stomach and the oesophagus but also the increased risk of malignancy after MGB/OAGB. A 54-year-old male, with a body mass index (BMI) of 46.1 kg/m², underwent Robotic MGB at another centre on 22nd June 2016. His pre-operative upper gastrointestinal endoscopy was not done. He lost 58 kg within 18 months after the surgery and attained a BMI of 25.1 kg/m². However, 2-year post-MGB, the patient had rapid weight loss of 19 kg with a decrease in BMI to 18.3 kg/m² within a span of 2 months. He also developed progressive dysphagia and had recurrent episodes of non-bilious vomiting. His endoscopy showed eccentric ulcerated growth in lower oesophagus extending up to the gastro-oesophageal junction and biopsy reported adenocarcinoma of oesophagus. MGB/OAGB has a potential for bile reflux with increased chances of malignancy. Surveillance by endoscopy at regular intervals for all patients who have undergone MGB/OAGB might help in early detection of Barrett's oesophagus or carcinoma of oesophagus or stomach.

DOI: 10.4103/jmas.JMAS_320_18
PMID: 30777997

4: B SR, Patel AK, Kabra SK, Lodha R, Ratageri VH, Ray P. Virus load and clinical features during the acute phase of Chikungunya infection in children. PLoS One. 2019 Feb 1;14(2):e0211036. doi: 10.1371/journal.pone.0211036. eCollection 2019. PubMed PMID: 30707708; PubMed Central PMCID: PMC6358158.

BACKGROUND: Chikungunya virus (CHIKV) infection is a long known mosquito-borne disease that is associated with severe morbidity, characterized by fever, headache, rashes, joint pain, and myalgia. It is believed that virus load has relation with severity of clinical features.

OBJECTIVES: We performed this study to assess the relationship between virus load and clinical features in children during the acute phase of CHIKV infection, in order to draw insights for better-informed treatment.

STUDY DESIGN: Between June 1, 2009, and May 31, 2010, 338 patients with fever and susceptible to CHIKV during first 4 days of illness were prospectively enrolled from Karnataka Institute of Medical Sciences, Hubli in our hospital based cross sectional observational study. Sybr green quantitative reverse transcription polymerase chain reaction was performed to estimate the virus load.

RESULTS: Quantitative RT-PCR was positive for CHIKV in 54 patients. The median copy number of CHIKV was 1.3×10^8 copies/ml (1.7×10^5 - 9.9×10^9 copies/ml). Among the observed clinical features, a statistically significant difference in log mean virus load was found between patients with and without myalgia (log mean 7.50 vs 8.34, $P = 0.01$).

CONCLUSION: Patients with myalgia had lower virus load and those without myalgia had a higher virus load.

DOI: 10.1371/journal.pone.0211036

PMCID: PMC6358158

PMID: 30707708

5: Bag S, Ghosh TS, Banerjee S, Mehta O, Verma J, Dayal M, Desigamani A, Kumar P, Saha B, Kedia S, Ahuja V, Ramamurthy T, Das B. Molecular Insights into Antimicrobial Resistance Traits of Commensal Human Gut Microbiota. Microb Ecol. 2019 Feb;77(2):546-557. doi: 10.1007/s00248-018-1228-7. Epub 2018 Jul 16. PubMed PMID: 30009332.

Antimicrobial resistance (AMR) among bacterial species that resides in complex ecosystems is a natural phenomenon. Indiscriminate use of antimicrobials in healthcare, livestock, and agriculture provides an evolutionary advantage to the resistant variants to dominate the ecosystem. Ascendency of resistant variants threatens the efficacy of most, if not all, of the antimicrobial drugs commonly used to prevent and/or cure microbial infections. Resistant phenotype is very common in enteric bacteria. The most common mechanisms of AMR are enzymatic modifications to the antimicrobials or their target molecules. In enteric bacteria, most of the resistance traits are acquired by horizontal gene transfer from closely or distantly related bacterial population. AMR traits are generally linked with mobile genetic elements (MGEs) and could rapidly disseminate to the bacterial species through horizontal gene transfer (HGT) from a pool of resistance genes. Although prevalence of AMR genes among pathogenic bacteria is widely studied in the interest of infectious disease management, the resistance profile and the genetic traits that encode resistance to the commensal microbiota residing in the gut of healthy humans are not well-studied. In the present study, we have characterized AMR phenotypes and genotypes of five dominant commensal enteric bacteria isolated from the gut of healthy Indians. Our study revealed that like pathogenic bacteria, enteric commensals are also multidrug-resistant. The genes encoding antibiotic resistance are physically linked with MGEs and could disseminate vertically to the progeny and laterally to the distantly related microbial species. Consequently, the AMR genes present in the chromosome of commensal gut bacteria could be a potential source of resistance functions for other enteric pathogens.

DOI: 10.1007/s00248-018-1228-7

PMID: 30009332 [Indexed for MEDLINE]

6: Bahadur A, Bhattacharya N, Chawla L, Khoiwal K, Durgapal P, Chaturvedi J. What is your diagnosis? J Turk Ger Gynecol Assoc. 2019 Feb 26;20(1):60-61. doi: 10.4274/jtgga.galenos.2019.2019.0007. Epub 2019 Jan 28. PubMed PMID: 30688054; PubMed Central PMCID: PMC6501864.

7: Baidya A, Gupta N, Basu A, Kodan P, Aggarwal K, Singh CA, Singh G, Soneja M, Xess I. Scedosporium apiospermum as a rare cause of fungal rhinosinusitis. J Family Med Prim Care. 2019 Feb;8(2):766-768. doi: 10.4103/jfmmpc.jfmmpc_434_18. PubMed PMID: 30984713; PubMed Central PMCID: PMC6436286.

Fungal rhinosinusitis is not very uncommon in diabetic patients, but Scedosporium apiospermum as a cause of this infection is rare. We report a case of fungal rhinosinusitis by Scedosporium spp. in a diabetic male along with literature review. The patient is on voriconazole, with adequate therapeutic response after 6 months of follow up.

DOI: 10.4103/jfmmpc.jfmmpc_434_18
PMCID: PMC6436286
PMID: 30984713

8: Baig MH, Rahman S, Rabbani G, Imran M, Ahmad K, Choi I. Multi-Spectroscopic Characterization of Human Serum Albumin Binding with Cyclobenzaprine Hydrochloride: Insights from Biophysical and In Silico Approaches. Int J Mol Sci. 2019 Feb 3;20(3). pii: E662. doi: 10.3390/ijms20030662. PubMed PMID: 30717459; PubMed Central PMCID: PMC6387470.

Cyclobenzaprine hydrochloride (CBH) is a well-known muscle relaxant that is widely used to relieve muscle spasms and other pain associated with acute musculoskeletal conditions. In this study, we elucidated the binding characteristics of this muscle relaxant to human serum albumin (HSA). From a pharmaceutical and biochemical viewpoint, insight into the structure, functions, dynamics, and features of HSA-CBH complex holds great importance. The binding of CBH with this major circulatory transport protein was studied using a combination of biophysical approaches such as UV-VIS absorption, fluorescence quenching, and circular dichroism (CD) spectroscopy. Various in silico techniques, molecular docking and molecular dynamics, were also used to gain deeper insight into the binding. A reduction in the fluorescence intensities of HSA-CBH complex with a constant increase in temperature, revealed the static mode of protein fluorescence quenching upon CBH addition, which confirmed the formation of the HSA-CBH ground state complex. The alteration in the UV-VIS and far-UV CD spectrum indicated changes in both secondary and tertiary structures of HSA upon binding of CBH, further proving CBH binding to HSA. The analysis of thermodynamic parameters ΔH° and ΔS° showed that binding of CBH to HSA was dominated by intermolecular hydrophobic forces. The results of the molecular docking and molecular dynamics simulation studies also confirmed the stability of the complex and supported the experimental results.

DOI: 10.3390/ijms20030662
PMCID: PMC6387470
PMID: 30717459 [Indexed for MEDLINE]

9: Bajpai V, Govindaswamy A, Khurana S, Batra P, Aravinda A, Katoch O, Hasan F, Malhotra R, Mathur P. Phenotypic & genotypic profile of antimicrobial resistance in Pseudomonas species in hospitalized patients. Indian J Med Res. 2019 Feb;149(2):216-221. doi: 10.4103/ijmr.IJMR_1_18. PubMed PMID: 31219086; PubMed Central PMCID: PMC6563739.

Background & objectives: Nosocomial infections caused by multidrug-resistant, Pseudomonas species have become a major clinical and public health concern. The aim of this study was to characterize phenotypic and genotypic profile of

antimicrobial resistance (AMR) in *Pseudomonas* spp. isolated from hospitalized patients.

Methods: A total of 126 consecutive, non-duplicate isolates of *Pseudomonas* spp. isolated from various clinical samples were included in the study over a period of two years. Identification and antimicrobial sensitivity was performed using automated culture system according to the Clinical and Laboratory Standards Institute (CLSI) recommendations. Phenotypic detection of extended-spectrum β -lactamases (ESBLs), Amp-C β -lactamase (AmpC) and metallo- β -lactamases (MBLs) were done by various combinations of disc-diffusion and E-test methods, followed by polymerase chain reaction-based detection of β -lactamase-encoding genes.

Results: Among 126 clinical isolates, 121 (96.1%) isolates were identified as *Pseudomonas aeruginosa*. Most of the isolates were recovered from pus sample, 35 (27.8%) followed by urine, 25 (19.84%); endotracheal aspirate, 24 (19.04%); blood, 14 (11.11%) and sputum, four (3.17%). The highest rate of resistance was against ticarcillin-clavulanic acid, 113 (89.7%) followed by meropenem, 92 (72.5%) and ceftazidime, 91 (72.3%). Overall, ESBLs, AmpC and carbapenemase production was detected in 109 (96.4%), 64 (50.8%) and 105 (94.6%) isolates by phenotypic methods. The most prevalent ESBL gene was blaTEM17 72 (57.1%) and the least prevalent was blaSHV11 19 (15.1%) isolates. AmpC gene was seen less compared to ESBL gene. The most prevalent carbapenemases gene was blaNDM-141 (46.06%) followed by blaVIM and blaOXA-1.

Interpretation & conclusions: Our findings suggested that a high rate of ESBLs and carbapenemases production was observed in *Pseudomonas* spp. Therefore, phenotypic and genotypic detection of AMR needs to be combined for better characterization of resistance patterns in *Pseudomonas* spp.

DOI: 10.4103/ijmr.IJMR_1_18

PMCID: PMC6563739

PMID: 31219086

10: Banerjee S, Gupta N, Kodan P, Mittal A, Ray Y, Nischal N, Soneja M, Biswas A, Wig N. Nipah virus disease: A rare and intractable disease. *Intractable Rare Dis Res.* 2019 Feb;8(1):1-8. doi: 10.5582/irdr.2018.01130. Review. PubMed PMID: 30881850; PubMed Central PMCID: PMC6409114.

Nipah virus, an enveloped ribonucleic acid virus, has been a major cause of encephalitis out-breaks with high mortality, primarily in the Indo-Bangladesh regions. Except for the first outbreak in Malaysia-Singapore, which was related to contact with pigs and the outbreak in Philippines associated with horse slaughter, most other outbreaks have affected the Indo- Bangladesh regions. The Indo-Bangladesh outbreaks were associated with consumption of raw date palm sap contaminated by fruit bats and had a very high secondary attack rate. The patient usually presents with fever, encephalitis and/or respiratory involvement with or without thrombocytopenia, leukopenia and transaminitis. Diagnosis can be confirmed by isolation and nucleic acid amplification in the acute phase or antibody detection during the convalescent phase. Treatment is mostly limited to supportive care and syndromic management of acute encephalitis syndrome. Ribavirin, m102.4 monoclonal antibody and favipiravir are the only anti-virals with some activity against Nipah virus. Standard precautions, hand hygiene and personal protective equipments are the cornerstone of comprehensive infection prevention and control strategy. With the recent outbreaks affecting newer geographical areas, there is a need for physicians to be aware of this disease and keep abreast of its current detection and management strategies.

DOI: 10.5582/irdr.2018.01130

PMCID: PMC6409114

PMID: 30881850

11: Bharti P, Ramam M, Bhari N. Congenital midline cervical cleft. *Indian J Dermatol Venereol Leprol.* 2019 Feb 6. doi: 10.4103/ijdv1.IJDVL_466_18. [Epub ahead of print] PubMed PMID: 30729923.

12: Bhat MA, Sharma JB, Roy KK, Sengupta J, Ghosh D. Genomic evidence of Y chromosome microchimerism in the endometrium during endometriosis and in cases of infertility. *Reprod Biol Endocrinol*. 2019 Feb 13;17(1):22. doi: 10.1186/s12958-019-0465-z. PubMed PMID: 30760267; PubMed Central PMCID: PMC6375207.

BACKGROUND: Previous studies, which were primarily based on the fluorescent in-situ hybridisation (FISH) technique, revealed conflicting evidence regarding male foetal microchimerism in endometriosis. FISH is a relatively less sensitive technique, as it is performed on a small portion of the sample. Additionally, the probes used in the previous studies specifically detected centromeric and telomeric regions of Y chromosome, which are gene-sparse heterochromatized regions. In the present study, a panel of molecular biology tools such as qPCR, expression microarray, RNA-seq and qRT-PCR were employed to examine the Y chromosome microchimerism in the endometrium using secretory phase samples from fertile and infertile patients with severe (stage IV) ovarian endometriosis (OE) and without endometriosis.

METHODS: Microarray expression analysis followed by validation using RNA-seq and qRT-PCR experiments at the RNA levels and further validation at the DNA level by qPCR of target inserts for selected targets in eutopic endometrium samples obtained from control (CON) and stage IV ovarian endometriosis (OE), either from fertile (FCON and FOE; n=30/each) or infertile (ICON and IOE; n=30/each) women, were performed.

RESULTS: Six coding (AMELY, PCDH11, SRY, TGIF2LY, TSPY3, and USP9Y) and 10 non-coding (TTY2, TTY4C, TTY5, TTY6, TTY8, TTY10, TTY14, TTY21, TTY22, and TTY23) genes exhibited a bimodal pattern of expression characterised by low expression in samples from fertile patients and high expression in samples from infertile patients. Seven coding MSY-linked genes (BAGE, CD24, EIF1AY, NLGN4Y, PRKY, VCY and ZFY) exhibited differential regulation in microarray analysis, and this change was validated by RNA-seq or qRT-PCR. DNA inserts for 7 genes in various samples were validated by qPCR. The prevalence and concentration of PCR-positive target inserts for BAGE, PRKY, TTY9A and ZFY displayed higher values in the fertile, control (FCON) patients compared with the fertile, endometriosis patients (FOE).

CONCLUSION: Several coding and non-coding MSY-linked genes displayed microchimerism as evidenced by the presence of their respective DNA inserts, along with their differential transcript expression, in the endometrium during endometriosis and in cases of infertility.

DOI: 10.1186/s12958-019-0465-z

PMCID: PMC6375207

PMID: 30760267 [Indexed for MEDLINE]

13: Bhatt A, Sinukumar S, Rajan F, Damodaran D, Ray M, Zaveri S, Kammar P, Mehta S. Impact of Radicality Versus Timing of Surgery in Patients with Advanced Ovarian Cancer (Stage III C) Undergoing CRS and HIPEC—a Retrospective Study by INDEPSO. *Indian J Surg Oncol*. 2019 Feb;10(Suppl 1):57-64. doi: 10.1007/s13193-019-00875-z. Epub 2019 Jan 16. PubMed PMID: 30886495; PubMed Central PMCID: PMC6397116.

HIPEC in addition to interval CRS has shown a survival benefit of 12 months compared to CRS alone. However, there are many controversial issues pertaining to CRS itself which should be addressed first. To compare NACT and primary CRS approaches when CRS is categorized according to the extent of resection. To evaluate the feasibility of performing HIPEC at these two time points. A retrospective analysis of patients with stage III C ovarian cancer undergoing primary and interval CRS+HIPEC was performed. The surgical approach for interval CRS was classified as (1) resection of sites of residual disease alone or (2) resection of sites involved before NACT. The morphological response was divided into different categories, and surgeons had to state what they consider residual disease and what they do not. From January 2013 to December 2017, 54 patients were included (18-primary; 36-interval). Median PCI 11 vs 6.5

($p=0.07$); CC-0 was obtained in 77.7%. Three surgeons resected previously involved sites; three sites of residual disease only. All surgeons resected areas of scarring. Twenty percent patients had residual disease in "normal-looking" peritoneum. Morbidity ($p=0.09$), median OS ($p=0.71$), and median DFS ($p=0.54$) were similar in the two groups. Early recurrence occurred in 50% with resection of residual disease alone compared to 16.6% when previous disease sites were resected ($p=0.07$). Interval CRS should be performed to resect sites involved prior to NACT and not just sites of residual disease. HIPEC can be performed in both primary/interval settings with acceptable morbidity.

DOI: 10.1007/s13193-019-00875-z

PMCID: PMC6397116 [Available on 2020-02-01]

PMID: 30886495

14: Bhatt A, Kammar P, Mehta S, Damodaran D, Zaveri S, Patel MD, Sinukumar S, Ray M, Seshadri R. Chasing Rainbows? the Possibility of "Cure" in Patients with Colorectal Peritoneal Metastases Undergoing Cytoreductive Surgery and HIPEC—a Retrospective Study by INDEPSO. *Indian J Surg Oncol*. 2019 Feb;10(Suppl 1):49-56. doi: 10.1007/s13193-019-00879-9. Epub 2019 Jan 30. PubMed PMID: 30886494; PubMed Central PMCID: PMC6397129.

Cytoreductive surgery (CRS) and HIPEC results in a median disease-free survival (DFS) of 12-15 months, overall survival (OS) of 23-63 months, and cure in around 15% of patients with colorectal peritoneal metastases (CPM). The wide variation in OS may largely be attributed to different criteria for patient selection employed by different investigators. To evaluate outcomes of CRS and HIPEC for CPM in patients enrolled in the Indian HIPEC registry. A retrospective analysis of patients enrolled in the registry since its inception in March 2016 was performed. The impact of various prognostic factors on DFS and OS was evaluated. From Jan 2013 to Dec 2017, 68 patients underwent CRS with HIPEC at six Indian centers. The median PCI was nine [range 3-35]. Twenty-two (32.3%) had mucinous tumors. A CC-0 resection was performed in 53 (77.9%) and CC-1 in 14 (20.5%). The median DFS was 12 months [95% CI 11.037-12.963 months] and the median OS 25 months [95% CI 18.718-31.282]. The DFS was inferior in patients with right upper quadrant involvement ($p=0.02$) and 90-day major morbidity ($p=0.002$) and OS inferior in those with 90-day major morbidity ($p<0.001$) and mucinous tumors with a PCI >20 . The DFS compares well with results obtained by pioneering teams but we have no "cured" patients. Better patient selection and utilization of systemic therapies could in the future improve the OS. There is a compelling need to identify subgroups of CPM that benefit from the addition of HIPEC to CRS.

DOI: 10.1007/s13193-019-00879-9

PMCID: PMC6397129 [Available on 2020-02-01]

PMID: 30886494

15: Bhatwalkar SB, Gound SS, Mondal R, Srivastava RK, Anupam R. Anti-biofilm and Antibacterial Activity of *Allium sativum* Against Drug Resistant Shiga-Toxin Producing *Escherichia coli* (STEC) Isolates from Patient Samples and Food Sources. *Indian J Microbiol*. 2019 Jun;59(2):171-179. doi: 10.1007/s12088-019-00784-3. Epub 2019 Feb 18. PubMed PMID: 31031431; PubMed Central PMCID: PMC6458215.

Escherichia coli (*E. coli*) colonizes human intestinal tract and is usually harmless to the host. However, several strains of *E. coli* have acquired virulent genes and could cause enteric diseases, urinary tract and even brain infections. Shiga toxin producing *Escherichia coli* (STEC) is an enterohaemorrhagic *E. coli* (EHEC) which can result in bloody diarrhoea and could potentially lead to deadly haemolytic uremic syndrome (HUS). STEC is one of the important food borne pathogens that causes food poisoning leading to diarrhoea and number of STEC outbreaks have occurred across the world. The use of standard antibiotics to treat STEC infection is not recommended as it increases the production of shiga toxin which could lead to HUS. Therefore, use of alternative approaches which

include use of plant products to treat STEC infections have been gaining attention. The objective of this study was to evaluate the antibacterial and anti-biofilm activity of garlic (*Allium sativum*) against STEC strains isolated from various patient and food samples using in vitro assays. The microbiological isolation of STEC from various patient and food samples resulted in eight STEC isolates of which seven strains were multidrug resistant. Antibacterial assay results indicated that all the strains exhibited dose dependent sensitivity towards garlic with zone of inhibition diameters ranging from 7 to 24 mm with 15 µl of fresh garlic extract (FGE). Minimum inhibitory concentration (MIC) of FGE for isolates ranged from 30 to 140 µl/ml. Interestingly, the biofilm formation of all isolates in presence of 4% of FGE decreased by 35 to 59%. FTIR analysis indicated that treatment with 1% FGE results in compositional and content changes in the biofilm. In addition, the total carbohydrate content of biofilm was reduced by 40% upon 1% FGE treatment. The results of the present study report for the first time the antibacterial and anti-biofilm activity of garlic against STEC. The findings will enable development of novel garlic organosulfide based drugs for the prevention and treatment of STEC infections.

DOI: 10.1007/s12088-019-00784-3

PMCID: PMC6458215 [Available on 2020-06-01]

PMID: 31031431

16: Bhayana AA, Kumar V, Tayade A, Chandra M, Chandra P, Kumar A. Choroidal thickness in normal Indian eyes using swept-source optical coherence tomography. *Indian J Ophthalmol*. 2019 Feb;67(2):252-255. doi: 10.4103/ijo.IJO_668_18. PubMed PMID: 30672480; PubMed Central PMCID: PMC6376823.

Purpose: The purpose of this study is to provide normative database for subfoveal choroidal thickness in Indian eyes using swept-source optical coherence tomography.

Methods: This is a cross-sectional study based at a tertiary eye care center in Northern India. Two hundred and thirty eight eyes of 119 healthy subjects were examined in terms of axial length, spherical equivalent, and choroidal thickness. Inclusion criteria included age 19-60 years, no retinal or choroidal disorder, and patients with clear media and good fixation. Patients with high hypermetropia (>4 D) or myopia (>6 D) or any systemic disease likely to affect choroidal thickness were excluded. Twelve radial line scans were obtained centered on the fovea that were used to calculate choroidal and retinal thickness in 9 early treatment diabetic retinopathy study (ETDRS) zones.

Results: The mean age of all the subjects was 28.70 ± 11.28 years; mean axial length was 23.63 ± 1.96 mm, and mean spherical equivalent was -0.92 ± 3.08 D. The mean subfoveal choroidal thickness was 299.10 ± 131.2 µ and mean foveal thickness was 239.92 ± 48.16 µ. A negative correlation was found between subfoveal choroidal thickness and age ($r = -0.0961$, $P = 0.1392$) and axial length ($r = -0.3166$, $P < 0.001$). A statistically significant positive correlation was found between subfoveal choroidal thickness and refractive error ($r = 0.2393$, $P = 0.0002$).

Conclusion: This study provides normative database for subfoveal choroidal thickness and foveal thickness using swept-source optical coherence tomography. The choroidal thickness measured with swept-source platform is slightly higher than that reported with spectral domain platforms.

DOI: 10.4103/ijo.IJO_668_18

PMCID: PMC6376823

PMID: 30672480 [Indexed for MEDLINE]

17: Bhayana AA, Singh P, Sen S, Bajaj MS. Isolated conjunctival involvement in a case of cutaneous leishmaniasis. *Trop Doct*. 2019 Apr;49(2):149-151. doi: 10.1177/0049475519827112. Epub 2019 Feb 5. PubMed PMID: 30722746.

18: Bhoi D, Narasimhan P, Nethaji R, Talawar P. Ultrasound-Guided Midpoint

Transverse Process to Pleura Block in Breast Cancer Surgery: A Case Report. *A A Pract.* 2019 Feb 1;12(3):73-76. doi: 10.1213/XAA.0000000000000850. PubMed PMID: 30085935.

To avoid the safety issues related to thoracic paravertebral blocks, we performed midpoint transverse process to pleura blocks in 3 patients before general anesthesia for modified radical mastectomies. The midpoint transverse process to pleura blocks served as the major component of multimodal analgesia. With ultrasound guidance, 7 mL of a mixture of 0.75% ropivacaine and 2% lidocaine with epinephrine were deposited at T2, T4, and T6 levels. We noted decreased sensation to cold and pinprick from T2 to T8 dermatome level with sparing of axilla and infraclavicular areas. The maximum pain numeric rating scale score (0-10) was 4 out on movement and none had mean 24-hour numeric rating scale >3.

DOI: 10.1213/XAA.0000000000000850
PMID: 30085935 [Indexed for MEDLINE]

19: Biswas S, Agarwal S, Soneja M, Biswas A. Acute psychosis and Wilson's disease. *QJM.* 2019 Feb 1;112(2):129-130. doi: 10.1093/qjmed/hcy267. PubMed PMID: 30423163.

20: Bodkhe R, Shetty SA, Dhotre DP, Verma AK, Bhatia K, Mishra A, Kaur G, Pande P, Bangarusamy DK, Santosh BP, Perumal RC, Ahuja V, Shouche YS, Makharia GK. Comparison of Small Gut and Whole Gut Microbiota of First-Degree Relatives With Adult Celiac Disease Patients and Controls. *Front Microbiol.* 2019 Feb 8;10:164. doi: 10.3389/fmicb.2019.00164. eCollection 2019. PubMed PMID: 30800106; PubMed Central PMCID: PMC6376745.

Recent studies on celiac disease (CeD) have reported alterations in the gut microbiome. Whether this alteration in the microbial community is the cause or effect of the disease is not well understood, especially in adult onset of disease. The first-degree relatives (FDRs) of CeD patients may provide an opportunity to study gut microbiome in pre-disease state as FDRs are genetically susceptible to CeD. By using 16S rRNA gene sequencing, we observed that ecosystem level diversity measures were not significantly different between the disease condition (CeD), pre-disease (FDR) and control subjects. However, differences were observed at the level of amplicon sequence variant (ASV), suggesting alterations in specific ASVs between pre-disease and diseased condition. Duodenal biopsies showed higher differences in ASVs compared to fecal samples indicating larger disruption of the microbiota at the disease site. The duodenal microbiota of FDR was characterized by significant abundance of ASVs belonging to *Parvimonas*, *Granulicatella*, *Gemella*, *Bifidobacterium*, *Anaerostipes*, and *Actinomyces* genera. The duodenal microbiota of CeD was characterized by higher abundance of ASVs from genera *Megasphaera* and *Helicobacter* compared to the FDR microbiota. The CeD and FDR fecal microbiota had reduced abundance of ASVs classified as *Akkermansia* and *Dorea* when compared to control group microbiota. In addition, predicted functional metagenome showed reduced ability of gluten degradation by CeD fecal microbiota in comparison to FDRs and controls. The findings of the present study demonstrate differences in ASVs and predicts reduced ability of CeD fecal microbiota to degrade gluten compared to the FDR fecal microbiota. Further research is required to investigate the strain level and active functional profiles of FDR and CeD microbiota to better understand the role of gut microbiome in pathophysiology of CeD.

DOI: 10.3389/fmicb.2019.00164
PMCID: PMC6376745
PMID: 30800106

21: Chadha VK, Anjinappa SM, Dave P, Rade K, Baskaran D, Narang P, Kolappan C, Katoch K, Sharma SK, Rao VG, Aggarwal AN, Praseeja P, Jitendra R, Swaminathan S. Sub-national TB prevalence surveys in India, 2006-2012: Results of uniformly

conducted data analysis. PLoS One. 2019 Feb 22;14(2):e0212264. doi: 10.1371/journal.pone.0212264. eCollection 2019. PubMed PMID: 30794595; PubMed Central PMCID: PMC6386399.

SETTING: Community based tuberculosis (TB) prevalence surveys in ten sites across India during 2006-2012.

OBJECTIVE: To re-analyze data of recent sub-national surveys using uniform statistical methods and obtain a pooled national level estimate of prevalence of TB.

METHODS: Individuals ≥ 15 years old were screened by interview for symptoms suggestive of Pulmonary TB (PTB) and history of anti-TB treatment; additional screening by chest radiography was undertaken in five sites. Two sputum specimens were examined by smear and culture among Screen-positives. Prevalence in each site was estimated after imputing missing values to correct for bias introduced by incompleteness of data. In five sites, prevalence was corrected for non-screening by radiography. Pooled prevalence of bacteriologically positive PTB was estimated using Random Effects Model after excluding data from one site. Overall prevalence of TB (all ages, all types) was estimated by adjusting for extra-pulmonary TB and Pediatric TB.

RESULTS: Of 769290 individuals registered, 715989 were screened by interview and 294532 also by radiography. Sputum specimen were examined from 50 852 individuals. Estimated prevalence of smear positive, culture positive and bacteriologically positive PTB varied between 108.4-428.1, 147.9-429.8 and 170.8-528.4 per 100000 populations in different sites. Pooled estimate of prevalence of bacteriologically positive PTB was 350.0 (260.7, 439.0). Overall prevalence of TB was estimated at 300.7 (223.7-377.5) in 2009, the mid-year of surveys. Prevalence was significantly higher in rural compared to urban areas. **CONCLUSION:** TB burden continues to be high in India suggesting further strengthening of TB control activities.

DOI: 10.1371/journal.pone.0212264

PMCID: PMC6386399

PMID: 30794595

22: Chaurasia S, Garg R, Beri S, Pakhare A. Sonographic Assessment of Optic Disc Cupping and its Diagnostic Performance in Glaucoma. J Glaucoma. 2019 Feb;28(2):131-138. doi: 10.1097/IJG.0000000000001123. PubMed PMID: 30461554.

PURPOSE: The purpose of this study was to assess the optic cup diameter sonographically in glaucoma patients and in the normal population and correlate it with their photographic parameters to propose a cut-off value as a predictive index of glaucoma.

METHODS: A total of 95/50 primary open-angle glaucoma and 87/44 control patients with clear media underwent visual field assessment, fundus photography, and B-scan ultrasound. Photographic vertical cup diameter (PVCD) of cases and controls were recorded after magnification correction using the Bengtsson formula. Sonographic vertical cup diameter (SVCD) was measured in the vertical transverse position.

RESULTS: The mean SVCD was 1.13 ± 0.23 mm in glaucoma and 0.72 ± 0.25 mm in controls ($P=0.001$). The mean PVCD was 1.024 ± 0.199 mm in glaucoma and 0.636 ± 0.217 mm in controls ($P=0.001$). A strong correlation between PVCD and SVCD in both groups was found (correlation coefficient $r=0.857$; $P=0.001$; glaucoma and $r=0.795$; $P=0.001$; control). SVCD had a positive correlation with vertical cup disc ratio ($r=0.675$; $P=0.001$ in glaucoma patients) and ($r=0.797$; $P=0.001$ in controls) cup area ($r=0.798$; $P=0.001$; glaucoma) and ($r=0.727$, $P=0.001$; control) a negative correlation with vertical neuroretinal rim diameter ($r=-0.5187$; $P=0.000$; glaucoma patients) and ($r=-0.699$; $P=0.001$; controls). No correlation of SVCD was found with severity of field grade changes. The receiving operative curve analysis was performed, and Youden's optimal cut-off method was used to find a cut-off value for SVCD, which came out to be 1.06, with 65.3% (95% confidence interval, 54.8-74.7) sensitivity and 94.3% (95% confidence interval, 87.1-97.1) specificity.

CONCLUSIONS: The sonographic evaluation of the optic cup is a reliable noninvasive procedure and a potentially useful tool in the assessment of nonviewable suspected glaucomatous cups.

DOI: 10.1097/IJG.0000000000001123

PMID: 30461554

23: Chavali S, Singh GP, Prabhakar H, Chaturvedi A. Recurrent transient episodes of left bundle branch block immediately following surgery - A rare phenomenon. *Indian J Anaesth.* 2019 Feb;63(2):153-155. doi: 10.4103/ija.IJA_637_18. PubMed PMID: 30814759; PubMed Central PMCID: PMC6383469.

24: Dahiya S, Malik R, Sharma P, Sashi A, Lodha R, Kabra SK, Sood S, Das BK, Walia K, Ohri VC, Kapil A. Current antibiotic use in the treatment of enteric fever in children. *Indian J Med Res.* 2019 Feb;149(2):263-269. doi: 10.4103/ijmr.IJMR_199_18. PubMed PMID: 31219092; PubMed Central PMCID: PMC6563751.

Background & objectives: Antimicrobial resistance is a major challenge in the treatment of typhoid fever with limited choices left to empirically treat these patients. The present study was undertaken to determine the current practices of antibiotic use in children attending a tertiary care hospital in north India. Methods: This was a descriptive observational study in children suffering from enteric fever as per the case definition including clinical and laboratory parameters. The antibiotic audit in hospitalized children was measured as days of therapy per 1000 patient days and in outpatient department (OPD) as antibiotic prescription on the treatment card.

Results: A total of 128 children with enteric fever were included in the study, of whom, 30 were hospitalized and 98 were treated from OPD. The mean duration of fever was 9.5 days at the time of presentation. Of these, 45 per cent were culture positive with *Salmonella Typhi* being aetiological agent in 68 per cent followed by *S. Paratyphi A* in 32 per cent. During hospitalization, the average length of stay was 10 days with mean duration of defervescence 6.4 days. Based on antimicrobial susceptibility ceftriaxone was given to 28 patients with mean duration of treatment being six days. An additional antibiotic was needed in six patients due to clinical non-response. In OPD, 79 patients were prescribed cefixime and additional antibiotic was needed in five during follow up visit. Interpretation & conclusions: Based on our findings, ceftriaxone and cefixime seemed to be the first line of antibiotic treatment for typhoid fever. Despite susceptibility, clinical non-response was seen in around 10 per cent of the patients who needed combinations of antibiotics.

DOI: 10.4103/ijmr.IJMR_199_18

PMCID: PMC6563751

PMID: 31219092

25: Darbari S, Meena RK, Sawarkar D, Doddamani RS, Singh M, Sarat Chandra P. Intraventricular Meningioma Presenting As Lateral Posterior Choroidal Artery Stroke. *World Neurosurg.* 2019 Feb 26. pii: S1878-8750(19)30466-8. doi: 10.1016/j.wneu.2019.02.055. [Epub ahead of print] PubMed PMID: 30822588.

26: Das D, Akhtar S, Kurra S, Gupta S, Sharma A. Emerging role of immune cell network in autoimmune skin disorders: An update on pemphigus, vitiligo and psoriasis. *Cytokine Growth Factor Rev.* 2019 Feb;45:35-44. doi: 10.1016/j.cytogfr.2019.01.001. Epub 2019 Feb 8. Review. PubMed PMID: 30773437.

Autoimmune skin diseases are a group of disorders that arise due to a deregulated immune system resulting in skin tissue destruction. In the majority of these conditions, either autoreactive immune cells or the autoantibodies are generated against self-antigens of the skin. Although the etiology of these diseases remains elusive, biochemical, genetic, and environmental factors such as

infectious agents, toxins damage the skin tissue leading to self-antigen generation, autoantibody attack and finally results in autoimmunity of skin. Immune dysregulation, which involves predominantly T helper 1/17 (Th1/Th17) polarization and the inability of regulatory T cells to regress immune response, is implicated in autoimmune skin diseases. The emerging roles of immune cells, cytokines, and chemokines in the pathogenesis of common autoimmune skin diseases like pemphigus, vitiligo, and psoriasis are discussed in this review. The main focus is on the interplay between immune cell network including the innate and adaptive immune system, regulatory cells, immune checkpoints and recently identified tissue-resident memory cells (TRMs) in disease pathogenesis and relapse. We also attempt to highlight on the immune mechanisms common to these diseases which can be targeted for designing novel therapeutics.

Copyright © 2019 Elsevier Ltd. All rights reserved.

DOI: 10.1016/j.cytogfr.2019.01.001
PMID: 30773437

27: Das R, Dhiman A, Kapil A, Bansal V, Sharma TK. Aptamer-mediated colorimetric and electrochemical detection of *Pseudomonas aeruginosa* utilizing peroxidase-mimic activity of gold NanoZyme. *Anal Bioanal Chem.* 2019 Feb;411(6):1229-1238. doi: 10.1007/s00216-018-1555-z. Epub 2019 Jan 14. PubMed PMID: 30637436.

Despite of various advancements in biosensing, a rapid, accurate, and on-site detection of a bacterial pathogen is a real challenge due to the lack of appropriate diagnostic platforms. To address this unmet need, we herein report an aptamer-mediated tunable NanoZyme sensor for the detection of *Pseudomonas aeruginosa*, an infectious bacterial pathogen. Our approach exploits the inherent peroxidase-like NanoZyme activity of gold nanoparticles (GNPs) in combination with high affinity and specificity of a *Pseudomonas aeruginosa*-specific aptamer (F23). The presence of aptamer inhibits the inherent peroxidase-like activity of GNPs by simple adsorption on to the surface of GNPs. However, in the presence of cognate target (*P. aeruginosa*), owing to the high affinity for *P. aeruginosa*, the aptamer leaves the GNP surface, allowing GNPs to resume their peroxidase-like activity, resulting in oxidation of 3,3',5,5'-tetramethylbenzidine (TMB). As TMB is an electrochemically active species, we have been able to translate the NanoZyme-based method into an ultrasensitive electrochemical assay using disposable carbon screen-printed electrode. This approach is highly sensitive and allows us to rapidly detect *P. aeruginosa* with a low-end detection limit of ~60 CFU/mL in water within 10 min. This generic aptamer-NanoZyme-based electrochemical sensing strategy may, in principle, be applicable for the detection of various other bacterial pathogens.

DOI: 10.1007/s00216-018-1555-z
PMID: 30637436 [Indexed for MEDLINE]

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

Movement disorders are one of the common clinical features of neurological disease associated with neuronal antibodies which is a group of potentially reversible disorder. They can present with hypokinetic or hyperkinetic types of involuntary movements and may have other associated neurological symptoms. The spectrum of abnormal movements associated with neuronal antibodies is widening. Some specific phenomenology of movement disorders are likely to give clue about the type of antibody, for instance, presence of paroxysmal dystonia (facio-brachial dystonic seizures) are a pointer toward presence of LGI-1 antibodies, and orofacial lingual dyskinesia is associated with NMDAR associated encephalitis. The presence of specific type of movement disorder allows high suspicion of testing of certain specific type of antibodies. In this review, we

have discussed the various antibodies and the spectrum of movement disorder associated with them, highlighting if any distinct movement disorder allows the clinician to suspect type of antibody in a certain clinical context. We have also reviewed the treatment of the movement disorder associated with the neuronal antibodies. Physicians should have high index of suspicion of these disorders, as early institution of treatment options can lead to better outcome.

© 2018 John Wiley & Sons A/S. Published by John Wiley & Sons Ltd.

DOI: 10.1111/ane.13039

PMID: 30338517 [Indexed for MEDLINE]

29: Dawar R, Nangia S, Thukral A, Chopra S, Khanna R. Factors Impacting Practice of Home Kangaroo Mother Care with Low Birth Weight Infants Following Hospital Discharge. *J Trop Pediatr*. 2019 Feb 14. pii: fmz007. doi: 10.1093/tropej/fmz007. [Epub ahead of print] PubMed PMID: 30768199.

OBJECTIVE: To identify enablers and barriers related to home Kangaroo Mother Care (KMC) adoption after hospital discharge.

STUDY DESIGN: An exploratory study, using a mixed methods evaluation, followed 60 mother-infant dyads from the hospital ward to 4 weeks post-hospital discharge.

RESULTS: Fifty-three of the mothers (88.3%) completed all study visits. The majority of mothers were breastfeeding and practicing skin-to-skin contact 4 weeks post-discharge. Seven mothers (13.2%) discontinued skin-to-skin contact at 4 weeks. KMC was practiced on average 3.3h/day and 5.1 days/week. The top two enablers reported were significantly related to the amount of time skin-to-skin was practiced, with support for household responsibilities being most significant ($U=195$, $p=0.008$). Lack of privacy ($p=0.002$) and lack of motivation ($p=0.034$) were negatively correlated to duration of skin-to-skin contact.

CONCLUSION: Future programs may increase dissemination and adoption of home KMC by specifically addressing enablers and barriers correlated to duration of skin-to-skin contact.

© The Author(s) [2019]. Published by Oxford University Press. All rights reserved. For permissions, please email: journals.permissions@oup.com.

DOI: 10.1093/tropej/fmz007

PMID: 30768199

30: De Majumdar S, Sikri K, Ghosh P, Jaisinghani N, Nandi M, Gandotra S, Mande S, Tyagi JS. Genome analysis identifies a spontaneous nonsense mutation in *ppsD* leading to attenuation of virulence in laboratory-manipulated *Mycobacterium tuberculosis*. *BMC Genomics*. 2019 Feb 12;20(1):129. doi: 10.1186/s12864-019-5482-y. PubMed PMID: 30755157; PubMed Central PMCID: PMC6373159.

BACKGROUND: A previous laboratory study involving wild type, mutant and *devR/dosR* complemented strains of *Mycobacterium tuberculosis* reported the attenuation phenotype of complemented strain, *Comp1*. This phenotype was intriguing since the parental strain H37Rv, *devR* mutant (*Mut1*) and additional complemented strains, *Comp9* and *Comp11*, were virulent in the guinea pig model.

RESULTS: Towards deciphering the mechanism underlying the attenuation of *Comp1*, a whole genome sequencing approach was undertaken. Eight Single Nucleotide Polymorphisms (SNPs) unique to the *Comp1* strain were identified. Of these, 5 SNPs were non-synonymous and included a G→A mutation resulting in a W1591Stop mutation in *ppsD* gene of the phthiocerol dimycocerosate (PDIM) biosynthetic cluster. Targeted sequence analysis confirmed this mutation in only *Comp1* strain and not in wild type (H37Rv), *devR* knockout (*Mut1*) or other complemented (*Comp9* and *Comp11*) bacteria. Differential expression of the PDIM locus in *Comp1* bacteria was observed which was associated with a partial deficiency of PDIM, an increased sensitivity to detergent and a compromised ability to infect human THP-1 cells.

CONCLUSIONS: It is proposed that a spontaneous mutation in the ppsD gene of *Comp1* underlies down-modulation of the PDIM locus which is associated with defects in permeability and infectivity as well as virulence attenuation in guinea pigs. Our study demonstrates the value of whole genome sequencing for resolving unexplainable bacterial phenotypes and recommends the assessment of PDIM status while assessing virulence properties of laboratory-manipulated strains of *M. tuberculosis*.

DOI: 10.1186/s12864-019-5482-y
PMCID: PMC6373159
PMID: 30755157 [Indexed for MEDLINE]

31: Dhawan A, Modak T, Sarkar S. Transdermal buprenorphine patch: Potential for role in management of opioid dependence. *Asian J Psychiatr.* 2019 Feb;40:88-91. doi: 10.1016/j.ajp.2019.02.002. Epub 2019 Feb 10. Review. PubMed PMID: 30772733.

Despite proven clinical utility, use of sublingual buprenorphine is fraught with issues of potential diversion among patients with opioid dependence. Transdermal buprenorphine patches provide an alternative delivery model that can be utilized to reduce such diversion. This narrative review discusses the transdermal buprenorphine formulations, and its pharmacology, drug interaction and tolerability profile. The studies utilizing buprenorphine transdermal patches in the treatment of opioid dependence are examined, while the potential of using such patches for maintenance treatment of opioid dependence is examined.

Copyright © 2019. Published by Elsevier B.V.

DOI: 10.1016/j.ajp.2019.02.002
PMID: 30772733

32: Dhawan V, Kumar M, Deka D, Malhotra N, Singh N, Dadhwal V, Dada R. Paternal factors and embryonic development: Role in recurrent pregnancy loss. *Andrologia.* 2019 Feb;51(1):e13171. doi: 10.1111/and.13171. Epub 2018 Oct 15. PubMed PMID: 30324700.

The events occurring at the maternal-foetal interface define a successful pregnancy but the current paradigm has shifted towards assessing the contribution of spermatozoa for embryogenesis. Spermatozoa with defective DNA integrity may fertilise the oocyte but affect subsequent embryonic development. The present case-control study was conducted in male partners of couples experiencing recurrent pregnancy loss (RPL) to assess the gene expression of spermatozoal FOXG1, SOX3, OGG1, PARP1, RPS6, RBM9, RPS17 and RPL29. This was correlated with reactive oxygen species (ROS) levels and DNA Fragmentation Index (DFI). Semen samples were obtained from 60 cases and 30 fertile controls. Gene expression was done by qPCR analysis, and relative quantification was calculated by the $2^{-\Delta\Delta Ct}$ method. Chemiluminescence and the sperm chromatin structure assay were used to measure the ROS and DFI levels respectively. FOXG1, OGG1, RPS6 and RBM9 were seen to be upregulated, while SOX3 and PARP1 were downregulated. Relative expression of SOX3, OGG1, RPS6 and RPS17 showed a significant difference between patients and controls ($p < 0.05$). RPL patients were seen to have high ROS (>27.8 ; $p = 0.001$) and DFI (>30.7 ; $p < 0.0001$) with respect to controls. Sperm transcript dysregulation and oxidative DNA damage can be "carried over" after implantation, thus affecting embryogenesis and health of the future progeny.

© 2018 Blackwell Verlag GmbH.

DOI: 10.1111/and.13171
PMID: 30324700 [Indexed for MEDLINE]

33: Doddamani RS, Sawarkar D, Meena RK, Gurjar H, Singh PK, Singh M, Chandra PS, Sathyarthee G. Remote Cerebellar Hemorrhage Following Surgery for Supratentorial Lesions. *World Neurosurg.* 2019 Feb 26. pii: S1878-8750(19)30464-4. doi:

10.1016/j.wneu.2019.02.053. [Epub ahead of print] PubMed PMID: 30822579.

BACKGROUND: Remote cerebellar hemorrhage (RCH) after intracranial surgery is a rare complication. Cerebellar hemorrhage is the most commonly described remote site hemorrhage after surgery for supratentorial pathologies. Although this is a rare complication 0.04% to 0.8%, it can be devastating in terms of patient outcome. There are various hypotheses to explain the occurrence of RCH. We report 6 cases of RCH after surgery for supratentorial lesions, discuss the pathophysiology, and review the pertinent literature.

METHODS: We retrospectively analyzed data of patients who underwent surgery for supratentorial lesions at our center between 2015 and 2017. We identified 6 patients who developed RCH among 1200 patients who underwent surgery and reviewed the demographic data, diagnosis, surgical procedure, and final outcome.

RESULTS: A total of 1200 patients underwent surgery for supratentorial pathologies between 2015 and 2017. Six patients developed RCH (incidence, 0.5%); 5 were male and 1 was female, with a mean age of 46.4 years. One patient underwent suboccipital decompression for RCH; the rest 5 were managed with close observation and serial imaging. The Glasgow outcome scale (GOS) of 5 was observed in 4 patients, GOS of 4 in 1 patient at discharge, and GOS of 1 in 1 patient who succumbed to severe pulmonary infection after surgery.

CONCLUSIONS: RCH is a rare complication but can lead to catastrophic results. Loss of large volumes of cerebrospinal fluid or sudden alteration in intracranial pressure due to removal of a mass lesion is the likely etiology. Although majority of cases may be managed conservatively, in a subset of cases with neurologic deterioration, surgery may be required as a life-saving procedure.

Copyright © 2019 Elsevier Inc. All rights reserved.

DOI: 10.1016/j.wneu.2019.02.053

PMID: 30822579

34: Garfin DR, Shin SS, Ekstrand ML, Yadav K, Carpenter CL, Sinha S, Nyamathi AM. Depression, social support, and stigma as predictors of quality of life over time: results from an Asha-based HIV/AIDS intervention in India. *AIDS Care*. 2019 May;31(5):563-571. doi: 10.1080/09540121.2018.1563281. Epub 2019 Feb 3. PubMed PMID: 30714386.

Quality of life (QOL) is associated with better outcomes in HIV/AIDS populations. We explored predictors of improved QOL over time in 600 Women Living with HIV/AIDS (WLH/A) in India [mean age = 34.31, SD = 6.97], enrolled in a nurse-led-Asha (Accredited Social Health Activist) intervention. Trained local interviewers ascertained self-report data at baseline and six-month follow-up (post-intervention). Latent Class Analysis (LCA) identified constellations of responses on psychosocial indicators (depression, social support, internalized stigma and stigma fears); their relationship with QOL over time was examined. We identified three classes: Class 1) Highest Social Resources/Lowest Depression; Class 2) Some Social Resources/Highest Depression; and Class 3) Lowest Social Resources/Higher Depression. At baseline, Class 3 reported the lowest QOL (M = 0.25, SD = 0.26); Class 1 reported the highest (M = 0.37, SD = 0.33). Class 2's QOL did not differ from Class 3's QOL, likely due to the potent effects of high depression. At six-month follow-up, all groups reported improved QOL; class membership no longer predicted variability (contrast between Class 2 and 1 = -0.05, 95% CI = -0.14, 0.04; contrast between Class 3 and 1 = 0.01, 95% CI = -0.03, 0.05; contrast between Class 3 and 2 = 0.07, 95% CI = -0.02, 0.16). Psychosocial indicators are important predictors of QOL; an Asha-supported approach may have broad applicability to improve QOL in WLH/A in India.

DOI: 10.1080/09540121.2018.1563281

PMID: 30714386

35: Garg B, Manhas V, Vardhan A, Srivastava DN, Das CJ, Vibha D, Gupta V, Malhotra R, Kotwal P. Thumb Opposition Recovery Following Surgery for Severe

Carpal Tunnel Syndrome: A Clinical, Radiological, and Electrophysiological Pilot Study. *J Hand Surg Am.* 2019 Feb;44(2):157.e1-157.e5. doi: 10.1016/j.jhsa.2018.05.004. Epub 2018 Jun 20. PubMed PMID: 29934085.

PURPOSE: To objectively assess recovery of thumb opposition in patients with carpal tunnel syndrome (CTS) after open carpal tunnel release and to evaluate electrophysiological and magnetic resonance (MR) neurography findings as predictors of thumb opposition recovery.

METHODS: A total of 22 patients with severe CTS and thenar atrophy were included in this study. A detailed clinical, electrophysiological, and MR neurography evaluation was done both before and after surgery at 6 months to assess thumb opposition recovery.

RESULTS: The median duration of symptoms was 12 months (interquartile range, 12-20 months). The compound muscle action potential of the abductor pollicis brevis (CMAP-APB) also showed statistically significant improvement of 0.5 ± 0.2 mV after surgery. Tip-tip pulp pinch strength increased from 1.2 ± 0.4 to 2.0 ± 0.4 kg at 6-month follow-up, lateral pulp pinch strength increased from 1.9 ± 0.6 to 2.8 ± 0.9 kg at 6-month follow-up, and 3-point pulp pinch also improved from 1.9 ± 0.5 to 2.8 ± 0.9 at final follow-up. On MR neurogram, the proportion of patients with abnormal median nerve morphology decreased from 81.8% to 68.2%, abnormal thenar branch morphology decreased from 63.6% to 36.4% and denervation edema decreased from 59.1% to 13.6%.

CONCLUSIONS: Patients suffering from severe CTS with thenar atrophy and detectable CMAP-APB showed promising improvement following open carpal tunnel release.

TYPE OF STUDY/LEVEL OF EVIDENCE: Prognostic IV.

Copyright © 2019 American Society for Surgery of the Hand. Published by Elsevier Inc. All rights reserved.

DOI: 10.1016/j.jhsa.2018.05.004
PMID: 29934085

36: Garg H, Tiwari D, Nayak B, Singh P, Yadav S, Kumar R, Seth A, Nayyar R, Dogra P. A comparative analysis of various surgical approaches of nephron-sparing surgery and correlation of histopathological grade with RENAL nephrometry score in renal cell carcinoma. *J Minim Access Surg.* 2019 Feb 18. doi: 10.4103/jmas.JMAS_208_18. [Epub ahead of print] PubMed PMID: 30777990.

Background: Nephron-sparing surgery (NSS) is the standard of care for small renal masses whenever feasible. This study aims to evaluate the perioperative outcomes of NSS performed by open (open partial nephrectomy [OPN]) or laparoscopic (laparoscopic PN [LPN]) or robotic (robotic PN [RPN]) approach over the past 6 years and to study the correlation of histopathological grade of renal cell carcinoma with the RENAL score.

Materials and Methods: A retrospective analysis of prospectively collected data of all patients who underwent NSS was done.

Results: A total of 135 patients underwent NSS. The mean tumour size was 4.4 cm. About 61 patients underwent OPN, 24 had LPN and 50 had RPN. Although tumour size was larger in OPN group ($P = 0.01$), tumour complexity based on the RENAL score was similar in OPN and RPN groups ($P = 0.15$). The OPN group had shorter operative time ($P = 0.008$) but more blood loss ($P = 0.001$) and length of hospital stay ($P = 0.049$) as compared to LPN or RPN group. Maximum radiological diameter of tumour ($P = 0.017$) appeared to be a significant predictor of operative time, while the open surgical approach ($P = 0.003$) and tumour stage ($P = 0.044$) were found to be significant predictors of blood loss. Hilar clamping time was similar in OPN and RPN groups ($P = 0.054$) but higher in LPN group ($P = 0.01$). However, post-operative decline in renal function (estimated glomerular filtration rate) ($P = 0.08$) and margin status were comparable among the three groups. The most common histopathology was clear cell carcinoma (70%), and RENAL score was identified as a significant predictor of histopathological grade of tumour ($P = 0.008$).

Conclusion: Open, laparoscopic and robotic approaches to PN provide similar patient outcomes. OPN was usually preferred for larger tumours. The post-operative decline in renal functions and complications were comparable among the three approaches. RENAL score correlated significantly with histopathological grade and hence could help in predicting tumour behaviour pre-operatively.

DOI: 10.4103/jmas.JMAS_208_18
PMID: 30777990

37: Garg H, Nayak B, Singh P. Re: Tom J.H. Arends, Ofer Nativ, Massimo Maffezzini, et al. Results of a Randomised Controlled Trial Comparing Intravesical Chemohyperthermia with Mitomycin C Versus Bacillus Calmette-Guerin for Adjuvant Treatment of Patients with Intermediate- and High-risk Non-Muscle-invasive Bladder Cancer. *Eur Urol* 2016;69:1046-52. *Eur Urol*. 2019 Feb;75(2):e25. doi: 10.1016/j.eururo.2018.08.046. Epub 2018 Sep 17. PubMed PMID: 30237025.

38: Garg PK, Singh VP. Organ Failure Due to Systemic Injury in Acute Pancreatitis. *Gastroenterology*. 2019 May;156(7):2008-2023. doi: 10.1053/j.gastro.2018.12.041. Epub 2019 Feb 12. Review. PubMed PMID: 30768987; PubMed Central PMCID: PMC6486861.

Acute pancreatitis may be associated with both local and systemic complications. Systemic injury manifests in the form of organ failure, which is seen in approximately 20% of all cases of acute pancreatitis and defines "severe acute pancreatitis." Organ failure typically develops early in the course of acute pancreatitis, but also may develop later due to infected pancreatic necrosis-induced sepsis. Organ failure is the most important determinant of outcome in acute pancreatitis. We review here the current understanding of the risk factors, pathophysiology, timing, impact on outcome, and therapy of organ failure in acute pancreatitis. As we discuss the pathophysiology of severe systemic injury, the distinctions between markers and mediators of severity are highlighted based on evidence supporting their causality in organ failure. Emphasis is placed on clinically relevant end points of organ failure and the mechanisms underlying the pathophysiological perturbations, which offer insight into potential therapeutic targets to treat.

Copyright © 2019 AGA Institute. Published by Elsevier Inc. All rights reserved.

DOI: 10.1053/j.gastro.2018.12.041
PMCID: PMC6486861 [Available on 2020-05-01]
PMID: 30768987 [Indexed for MEDLINE]

39: Garg PK, Zyromski NJ, Freeman ML. Infected Necrotizing Pancreatitis: Evolving Interventional Strategies From Minimally Invasive Surgery to Endoscopic Therapy-Evidence Mounts, But One Size Does Not Fit All. *Gastroenterology*. 2019 Mar;156(4):867-871. doi: 10.1053/j.gastro.2019.02.015. Epub 2019 Feb 15. PubMed PMID: 30776344.

40: Garg PK. Web Exclusive. *Annals for Hospitalists Inpatient Notes - Clinical Pearls-Acute Pancreatitis*. *Ann Intern Med*. 2019 Feb 19;170(4):HO2-HO3. doi: 10.7326/M19-0008. PubMed PMID: 30776825.

41: Garg VK, Mishra S, Gupta N, Garg R, Sachidanand B, Vinod K, Gautam H, Kapil A, Bhatnagar S. Microbial and Antibiotic Susceptibility Profile among Isolates of Clinical Samples of Cancer Patients Admitted in the Intensive Care Unit at Regional Tertiary Care Cancer Center: A Retrospective Observational Study. *Indian J Crit Care Med*. 2019 Feb;23(2):67-72. doi: 10.5005/jp-journals-10071-23119. PubMed PMID: 31086449; PubMed Central PMCID: PMC6487614.

Cancer patients in intensive care unit (ICU) are vulnerable for developing multidrug resistant nosocomial infections. The antimicrobial resistance due to

inappropriate use of antibiotics results in significant morbidity and mortality in these cancer patients. The present retrospective study was done to describe the antimicrobial sensitivity pattern of common organisms in isolates of clinical samples of patients admitted in ICU at our tertiary care cancer center. **Materials and methods:** The study was carried out at ICU of a regional tertiary care cancer center for a period of 1 year from October 2016 to September 2017. All clinical samples were collected and processed for culture and antibiotic susceptibility testing were carried out on isolates as per Clinical Laboratory Standard Institute guidelines.

Results: A total of 644 specimens were collected. *Escherichia coli*, *Acinetobacter* spp., *Klebsiella pneumoniae*, *Pseudomonas aeruginosa*, *Staphylococcus aureus* and *Enterococcus* spp. were most commonly encountered. In positive bacterial cultures, majority were Gram-negative isolates (84.14 %). *Klebsiella* was the most common gram-negative isolate (34.78%) and *Enterococcus* spp. were the most common Gram-positive isolates (61.53%). A high level of resistance to various antibiotics was noted among Gram-negative bacteria compared to Gram-positive isolates. Majority of the Gram-negative isolates were sensitive to Imipenem, Meropenem, and Colistin sensitivity among Gram-negative isolates was 100%. Linezolid, Teicoplanin and Vancomycin were most sensitive antimicrobials against the Gram-positive bacteria.

Conclusion: Regular monitoring of the pattern of resistance of bacteriological isolates in cancer patients is critical to develop antibiotic policy to combat these infections and reduce morbidity and mortality.

How to cite this article: Garg VK, Seema M et al. Microbial and Antibiotic Susceptibility Profile among Isolates of Clinical Samples of Cancer Patients admitted in the Intensive-care Unit at Regional Tertiary Care Cancer Center: A Retrospective Observational Study. *Indian J of Crit Care Med* 2019;23(2):67-72.

DOI: 10.5005/jp-journals-10071-23119

PMCID: PMC6487614

PMID: 31086449

42: Gautam V, Thakur A, Sharma M, Singh A, Bansal S, Sharma A, Kapil A, Das BK, Sistla S, Parija SC, Veeraraghavan B, Prakash JAJ, Walia K, Ohri VC, Ray P. Molecular characterization of extended-spectrum β -lactamases among clinical isolates of *Escherichia coli* & *Klebsiella pneumoniae*: A multi-centric study from tertiary care hospitals in India. *Indian J Med Res.* 2019 Feb;149(2):208-215. doi: 10.4103/ijmr.IJMR_172_18. PubMed PMID: 31219085; PubMed Central PMCID: PMC6563744.

Background & objectives: The increasing prevalence of extended-spectrum β -lactamases (ESBLs) has abated therapeutic options worldwide. This study was undertaken to investigate the molecular profile and resistance patterns of ESBLs among clinical isolates of *Escherichia coli* and *Klebsiella pneumoniae* at four tertiary care centres in India.

Methods: Clinical isolates of *E. coli* and *K. pneumoniae* were collected from the All India Institute of Medical Sciences (AIIMS), New Delhi; the Jawaharlal Institute of Postgraduate Medical Education & Research (JIPMER), Puducherry; Postgraduate Institute of Medical Education & Research (PGIMER), Chandigarh and Christian Medical College (CMC), Vellore, over one and a half year period. Antimicrobial susceptibility was determined by Kirby-Bauer disc diffusion method. ESBLs were confirmed phenotypically, and multiplex PCR was performed to identify genes for β -lactamases (*bla*TEM, *bla*SHV, *bla*OXA-1, *bla*CTXM-1, *bla*CTXM-2, *bla*CTXM-9 and *bla*CTXM-15).

Results: Among 341 *E. coli* isolates collected during the study period, 171 (50%) harboured *bla*TEM, 145 (43%) *bla*OXA-1, 70 (21%) *bla*CTXM-1, 19 (6%) *bla*SHV and four (1%) harboured *bla*CTXM-2. Phenotypically, combined disc test detected ESBL production in 98/298 (33%) *E. coli*. Among 304 *K. pneumoniae* isolates, 115 (38%), 89 (29%), 83 (27%), 64 (21%) and two (0.6%) harboured *bla*TEM, *bla*OXA-1, *bla*CTXM-1, *bla*SHV and *bla*CTXM-2, respectively. Combined disc test (CDT) detected ESBL production in 42 per cent *K. pneumoniae*. Most of the *bla*CTXM-1 positive isolates were also *bla*CTXM-15 positive. The carbapenem susceptibility ranged from

56 to 88 per cent for *E. coli* and from 20 to 61 per cent for *K. pneumoniae*. Antibiotic sensitivity patterns showed that colistin (CST) was the most sensitive drug for both *E. coli* (271/274, 99%) and *K. pneumoniae* (229/234, 98%).

Interpretation & conclusions: The prevalence of ESBL among four study centres varied, and blaTEM, blaOXA-1 and blaCTXM-15 were the most common genotypes in *E. coli* and *K. pneumoniae* isolates in India. The growing carbapenem resistance and emerging colistin resistance warrant the judicious use of these antimicrobials.

DOI: 10.4103/ijmr.IJMR_172_18

PMCID: PMC6563744

PMID: 31219085

43: Girish B, Davis AA. Chronic uterine inversion with malignancy mimicking carcinoma cervix. *BMJ Case Rep.* 2019 Feb 1;12(2). pii: bcr-2018-225541. doi: 10.1136/bcr-2018-225541. PubMed PMID: 30709891.

Chronic non-puerperal uterine inversion is a rare event, with only a handful of cases reported in literature. We report a case of a 64-year-old postmenopausal woman who presented with complaints of mass per vaginam and postmenopausal bleeding. On examination, she appeared to have third-degree cervical descent with an irregular growth seen over what appeared to be the cervix, biopsy of which showed keratinising squamous cell carcinoma. Subsequently, an inverted uterus was diagnosed at laparotomy with an irregular growth seen over the inverted portion of the uterine fundus, histopathology of which revealed squamous cell carcinoma of endometrium.

© BMJ Publishing Group Limited 2019. No commercial re-use. See rights and permissions. Published by BMJ.

DOI: 10.1136/bcr-2018-225541

PMID: 30709891 [Indexed for MEDLINE]

44: Goswami D, Chowdhury AR, Venkateswaran V, Sunkesula SG, Kundu R. AMBU® LMA® in Children With Cleft Palate for Ophthalmic Surgery: A Case Report. *A A Pract.* 2019 Feb 15;12(4):109-111. doi: 10.1213/XAA.0000000000000859. PubMed PMID: 30095444.

Airway management remains a challenge in children, and the presence of a cleft palate further complicates the scenario. Endotracheal intubation, although definitive and most preferred, may be avoided for certain short-duration procedures wherein the use of laryngeal mask airway can allow quicker emergence. We present the successful airway management of 2 pediatric patients with cleft palate undergoing ophthalmological surgery, using AMBU® LMA® as the airway device of choice, which was further used as a rescue airway device in an emergent situation of "difficult to ventilate."

DOI: 10.1213/XAA.0000000000000859

PMID: 30095444 [Indexed for MEDLINE]

45: Goyal A, Tirumalasetty S, Hossain G, Chaloo R, Arya M, Agrawal R, Agrawal D. Development of a Stand-Alone Independent Graphical User Interface for Neurological Disease Prediction with Automated Extraction and Segmentation of Gray and White Matter in Brain MRI Images. *J Healthc Eng.* 2019 Feb 14;2019:9610212. doi: 10.1155/2019/9610212. eCollection 2019. PubMed PMID: 30906515; PubMed Central PMCID: PMC6393878.

This research presents an independent stand-alone graphical computational tool which functions as a neurological disease prediction framework for diagnosis of neurological disorders to assist neurologists or researchers in the field to perform automatic segmentation of gray and white matter regions in brain MRI images. The tool was built in collaboration with neurologists and neurosurgeons and many of the features are based on their feedback. This tool provides the user

automatized functionality to perform automatic segmentation and extract the gray and white matter regions of patient brain image data using an algorithm called adapted fuzzy c-means (FCM) membership-based clustering with preprocessing using the elliptical Hough transform and postprocessing using connected region analysis. Dice coefficients for several patient brain MRI images were calculated to measure the similarity between the manual tracings by experts and automatic segmentations obtained in this research. The average Dice coefficients are 0.86 for gray matter, 0.88 for white matter, and 0.87 for total cortical matter. Dice coefficients of the proposed algorithm were also the highest when compared with previously published standard state-of-the-art brain MRI segmentation algorithms in terms of accuracy in segmenting the gray matter, white matter, and total cortical matter.

DOI: 10.1155/2019/9610212

PMCID: PMC6393878

PMID: 30906515

46: Grover SB, Antil N, Rajani H, Grover H, Kumar R, Mandal AK, Bagga D, Katyan A. Approach to pediatric renal tumors: an imaging review. *Abdom Radiol (NY)*. 2019 Feb;44(2):619-641. doi: 10.1007/s00261-018-1773-z. Review. PubMed PMID: 30311048.

Renal tumors comprise 7% of all childhood cancers. A wide variety of renal tumors can affect the pediatric kidneys, which can be broadly classified as primary benign tumors, primary malignant tumors, and metastatic lesions. This article aims to enumerate usual benign and malignant renal tumors that can occur in childhood and emphasizes the characteristic imaging appearances which aid in their differential diagnosis. Additionally, the leading role of the Radiologist in primary diagnosis of renal infiltration by hematological malignancies and contiguous invasion by neuroblastoma is also introduced and unraveled. Imaging protocol comprises initial Ultrasound evaluation with subsequent computed tomography (CT) and/or Magnetic resonance imaging (MRI), all of which are invaluable in confirming the diagnosis, documenting the organ of origin, describing extent of local and distant spread. The complimentary role of nuclear medicine studies in delineating differential renal function, post-operative complications, and metastasis is also highlighted.

DOI: 10.1007/s00261-018-1773-z

PMID: 30311048

47: Gupta A, Sharma S, Mathur S, Yadav DK, Gupta DK. Cervical congenital infantile fibrosarcoma: a case report. *J Med Case Rep*. 2019 Feb 24;13(1):41. doi: 10.1186/s13256-019-1968-0. PubMed PMID: 30797242; PubMed Central PMCID: PMC6387739.

BACKGROUND: Congenital infantile fibrosarcoma is a rare mesenchymal tumor seen in children as well as adults. The congenital variety is rare and out of the reported cases only one case sited in the neck has been reported so far. Another such case is presented here who was successfully managed.

CASE PRESENTATION: A 3-month-old Hindu baby boy presented with a congenital neck swelling. The apparent clinical diagnosis was lympho-venous malformation. With a remote possibility of malignancy, an excisional biopsy was done. Histopathology revealed congenital infantile fibrosarcoma.

CONCLUSION: A successful excision of cervical congenital infantile fibrosarcoma has not been reported. This diagnosis should be kept as a possibility in all congenital cervical swellings. These are commonly misdiagnosed as lympho-venous malformations and histopathology is confirmatory.

DOI: 10.1186/s13256-019-1968-0

PMCID: PMC6387739

PMID: 30797242 [Indexed for MEDLINE]

48: Gupta A, Khandelwal R, Kapil U. Interrelationship between dental health

status and nutritional status among elderly subjects in India. *J Family Med Prim Care*. 2019 Feb;8(2):477-481. doi: 10.4103/jfmpc.jfmpc_353_18. PubMed PMID: 30984658; PubMed Central PMCID: PMC6436255.

Background: Poor dental health status has been suggested to negatively impact the food selection, ultimately leading to malnutrition.

Objective: This study was undertaken to assess the association of dental health and nutritional status among elderly subjects in India.

Methodology: A community-based cross-sectional study was conducted during 2015-2016 in district Nainital, Uttarakhand state, India. A total of 1003 elderly population were enrolled from 30 clusters (villages) identified using population proportionate to size sampling methodology. Information on sociodemographic profile and anthropometric measurements was collected. Body mass index (BMI) and Mini Nutritional Assessment scale (MNA) were calculated for assessment of nutritional status. A trained professional assessed the dental health status through physical examination. Dietary intake data was collected using 24-h dietary recall methodology.

Results: We found that the prevalence of complete edentulism was 11%. Use of dentures was reported among only 9.6% subjects who were completely edentulous. Prevalence of underweight as defined by BMI and malnutrition as defined by MNA was higher among subjects with complete loss of teeth complete loss of teeth and chewing problems chewing problems and who did not wear dentures when compared with others. Subjects who wore dentures had significantly lower prevalence of malnutrition when compared with subjects who did not wear dentures.

Conclusion: Dental health status was significantly associated with poor nutritional status among elderly subjects in India. There is a need for providing restorative dental healthcare services to elderly population to improve their nutritional status.

DOI: 10.4103/jfmpc.jfmpc_353_18

PMCID: PMC6436255

PMID: 30984658

49: Gupta N, Kumar R, Soneja M, Singh G, Khot W, Malla S, Xess I. Mucor menace in an immunocompetent young male after dental manipulation. *J Family Med Prim Care*. 2019 Feb;8(2):757-759. doi: 10.4103/jfmpc.jfmpc_412_18. PubMed PMID: 30984710; PubMed Central PMCID: PMC6436271.

Fungal rhino-orbital sinusitis due to mucormycetes is a rapidly progressive condition with high mortality, rarely seen in immunocompetent individuals. A 26-year-old immunocompetent male presented with rhino-orbital mucormycosis after a history of dental manipulation. The patient was successfully managed with a combination of surgery, amphotericin B, and posaconazole. Here, we highlight the delay in diagnosis and challenges faced in the management.

DOI: 10.4103/jfmpc.jfmpc_412_18

PMCID: PMC6436271

PMID: 30984710

50: Gupta V, Mridha AR, Khaitan BK. Unsatisfactory response to sirolimus in Maffucci syndrome-associated spindle cell hemangiomas. *Dermatol Ther*. 2019 May;32(3):e12851. doi: 10.1111/dth.12851. Epub 2019 Feb 20. PubMed PMID: 30724000.

Maffucci syndrome is characterized by multiple benign vascular anomalies and enchondromas present on the distal extremities. Effective treatment options are currently not available for Maffucci syndrome-associated vascular lesions. Sirolimus is a mTOR pathway inhibitor, and has been tried successfully in the treatment of various vascular anomalies. We treated a 23-year-old female with Maffucci syndrome-associated spindle cell hemangiomas with oral sirolimus (2mg/day, 0.04mg/kg/day). There was improvement in pain, but no change in colour or size of the vascular nodules. In view of unsatisfactory response and

treatment-related adverse effects (oral aphthae, mild transaminitis), sirolimus was stopped after 6 months.

© 2019 Wiley Periodicals, Inc.

DOI: 10.1111/dth.12851

PMID: 30724000

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

AIM: This study aims to determine whether a resource- and culturally appropriate lifestyle intervention programme in South Asian countries, provided to women with gestational diabetes (GDM) after childbirth, will reduce the incidence of worsening of glycaemic status in a manner that is affordable, acceptable and scalable.

METHODS: Women with GDM (diagnosed by oral glucose tolerance test using the International Association of the Diabetes and Pregnancy Study Groups criteria) will be recruited from 16 hospitals in India, Sri Lanka and Bangladesh. Participants will undergo a repeat oral glucose tolerance test at 6 ± 3 months postpartum and those without Type 2 diabetes, a total sample size of 1414, will be randomly allocated to the intervention or usual care. The intervention will consist of four group sessions, 84 SMS or voice messages and review phone calls over the first year. Participants requiring intensification of the intervention will receive two additional individual sessions over the latter half of the first year. Median follow-up will be 2 years. The primary outcome is the proportion of women with a change in glycaemic category, using the American Diabetes Association criteria: (i) normal glucose tolerance to impaired fasting glucose, or impaired glucose tolerance, or Type 2 diabetes; or (ii) impaired fasting glucose or impaired glucose tolerance to Type 2 diabetes. Process evaluation will explore barriers and facilitators of implementation of the intervention in each local context, while trial-based and modelled economic evaluations will assess cost-effectiveness.

DISCUSSION: The study will generate important new evidence about a potential strategy to address the long-term sequelae of GDM, a major and growing problem among women in South Asia. (Clinical Trials Registry of India No: CTRI/2017/06/008744; Sri Lanka Clinical Trials Registry No: SLCTR/2017/001; and ClinicalTrials.gov Identifier No: NCT03305939).

© 2018 Diabetes UK.

DOI: 10.1111/dme.13850

PMID: 30368898

52: Gyawali S, Patra BN. Trends in concept and nosology of autism spectrum disorder: A review. *Asian J Psychiatr*. 2019 Feb;40:92-99. doi: 10.1016/j.ajp.2019.01.021. Epub 2019 Feb 10. Review. PubMed PMID: 30776666.

Autism Spectrum Disorder is a neurodevelopmental disorder characterized by persistent deficits in social communication, social interaction and restricted, repetitive patterns of behavior, interests or activities. The concept of autism has changed since its inception, from childhood schizophrenia to neuro-variation. These changes in concept have been accompanied by changes in the diagnostic threshold through which the 'case' of autism is identified. The occurrence of multiple changes in its diagnostic criteria over last 80 odd years opens up the possibility of challenges being posed to the existence of the disorder as it is today, with a possibility of newer conceptualization of autism coming up in the

future. The potential consequences of the changes in its nosology and concept, such as those on the management and on prevalence estimation are some of the essential issues which need attention. In the current paper, we evaluate the evolution of the concept and nosology of autism with an overview of the accompanying impact of these changes.

Copyright © 2019 Elsevier B.V. All rights reserved.

DOI: 10.1016/j.ajp.2019.01.021
PMID: 30776666

53: Haisley KR, Hart CM, Kaempf AJ, Dash NR, Dolan JP, Hunter JG. Specific Tumor Characteristics Predict Upstaging in Early-Stage Esophageal Cancer. *Ann Surg Oncol.* 2019 Feb;26(2):514-522. doi: 10.1245/s10434-018-6804-z. Epub 2018 Oct 30. PubMed PMID: 30377918.

BACKGROUND: Early-stage esophageal cancer (stages 0-1) has been shown to have relatively good outcomes after local endoscopic or surgical resection. For this reason, neoadjuvant chemoradiation usually is reserved for higher-stage disease. Some early tumors, however, are found after resection to be more advanced than predicted based on initial clinical staging, termed pathologic upstaging. Such tumors may have benefited from alternate treatment models had their true stage been known preoperatively. This study aimed to identify high-risk features in early esophageal cancers that might predict tumor upstaging and guide more individualized treatment algorithms.

METHODS: Through retrospective review of a single-institution foregut disease registry, we evaluated patients who underwent esophagectomy for high-grade dysplasia (Tis) or stage 1 esophageal cancer, searching for factors associated with pathologic upstaging.

RESULTS: The review included 110 patients (88% male, median age at diagnosis, 64.5 years) treated between January 2000 and June 2016. Upstaging occurred for 20.9% of the patients, and was more common for patients with angiolymphatic invasion (odds ratio [OR], 11.07; 95% confidence interval [CI], 2.96-41.44; $P < 0.001$) or signet-ring features (OR, 23.9; 95% CI, 2.6-216.8; $P = 0.005$). In the absence of other predictors, upstaging was associated with decreased overall survival ($P = 0.006$).

CONCLUSIONS: Approximately 20% of patients with early-stage esophageal cancer may be upstaged at resection. Angiolymphatic invasion and signet-ring features may predict tumors likely to be upstaged, resulting in decreased overall survival.

DOI: 10.1245/s10434-018-6804-z
PMID: 30377918 [Indexed for MEDLINE]

54: Ihtisham K, Ramanujam B, Srivastava S, Mehra NK, Kaur G, Khanna N, Jain S, Kumar S, Kaul B, Samudrala R, Tripathi M. Association of cutaneous adverse drug reactions due to antiepileptic drugs with HLA alleles in a North Indian population. *Seizure.* 2019 Mar;66:99-103. doi: 10.1016/j.seizure.2019.02.011. Epub 2019 Feb 20. PubMed PMID: 30826555.

PURPOSE: Aromatic antiepileptic drugs (AEDs) are frequently implicated in cutaneous adverse drug reactions (cADRs), a few of which are associated with certain human leukocyte antigen (HLA) alleles in some populations. We aimed to find HLA-associations with AED-related cADRs among North Indians.

METHODS: North Indian subjects with cADR due to an AED, and those who were AED-tolerant were recruited as cases and controls, respectively. Genotyping for HLA-A, B and DRB1 were performed. Statistical analysis to compare carrier-rates and allele-frequencies between cases and controls (and healthy population, where necessary), was done for HLA-alleles occurring more than twice in either group.

RESULTS: 120 cases {11 - Lamotrigine (LTG), 14 -Valproic acid (VPA), 8 -Levetiracetam (LEV), 35 -Carbamazepine (CBZ) and 52 - Phenytoin (PHT)}, and 250 controls were recruited. Presence of HLA-A*31:01 and HLA-B*51:01 were found to increase the risk of Maculopapular exanthema (MPE) due to CBZ and PHT (OR=6.38;

95% CI: 1.46-27.75; OR=4.60; 95% CI: 1.54-13.72, respectively). Among the severe cADRs, HLA-B*57:01 (OR=11.00 95% CI: 1.41-85.81) and HLA-DRB1*07:01 (OR=7.25; 95% CI: 1.09-48.18) were noted to be significantly associated with CBZ-induced Stevens Johnson Syndrome (SJS)/Toxic Epidermal Necrolysis (TEN); HLA-B *51:01 was associated with drug reaction eosinophilia and systemic symptoms (DRESS) caused by PHT (OR=6.90; 95% CI: 1.38-34.29).

CONCLUSIONS: We found significant associations of some HLA alleles with specific cADRs to CBZ and PHT in North Indians, which may need to be tested before AED-initiation; only screening for HLA-B*15:02 may not help in this population.

Copyright © 2019 British Epilepsy Association. Published by Elsevier Ltd. All rights reserved.

DOI: 10.1016/j.seizure.2019.02.011

PMID: 30826555 [Indexed for MEDLINE]

55: Irshad M, Gupta P, Irshad K. Immunopathogenesis of Liver Injury During Hepatitis C Virus Infection. *Viral Immunol.* 2019 Apr;32(3):112-120. doi: 10.1089/vim.2018.0124. Epub 2019 Feb 28. PubMed PMID: 30817236.

The present report describes current concepts about the mechanism of liver cell injury caused by host immune response against hepatitis C virus (HCV) infection in human beings. This report is based on the observations from experimental studies and follow-up actions on human liver diseases. The results from different investigations suggest that liver injury depends on the presentation of viral antigen and the level of host immune response raised against HCV-related peptides. Both innate and adaptive immunity are triggered to counter the viral onset. During development of host immunity, the cell-mediated immune response involving CD4+ Th1 cells and CD8+ cytotoxic T-lymphocyte (CTL) cells were found to play a major role in causing liver damage. The hepatic Innate lymphoid cells (ILCs) subsets are involved in the immune regulation of different liver diseases: viral hepatitis, mechanical liver injury, and fibrosis. Humoral immunity and natural killer (NK) cell action also contributed in liver cell injury by antibody-dependent cellular cytotoxicity (ADCC). In fact, immunopathogenesis of HCV infection is a complex phenomenon where regulation of immune response at several steps decides the possibility of viral elimination or persistence. Regulation of immune response was noted starting from viral-host interaction to immune reaction cascade engaged in cell damage. The activation or suppression of interferon-stimulated genes, NK cell action, CTL inducement by regulatory T cells (Treg), B cell proliferation, and so on was demonstrated during HCV infection. Involvement of HLA in antigen presentation, as well as types of viral genotypes, also influenced host immune response against HCV peptides. The combined effect of all these effector mechanisms ultimately decides the progression of viral onset to acute or chronic infection. In conclusion, immunopathogenesis of liver injury after HCV infection may be ascribed mainly to host immune response. Second, it is cell-mediated immunity that plays a predominant role in liver cell damage.

DOI: 10.1089/vim.2018.0124

PMID: 30817236

56: Jain G, Kumar C, Meena P, Singh AR, Kumar V, Kumar S, Tanwar P. Hydatid cyst of gall bladder masquerading as carcinoma: A rare case report with review of literature. *Intractable Rare Dis Res.* 2019 Feb;8(1):36-42. doi: 10.5582/iridr.2018.01097. PubMed PMID: 30881856; PubMed Central PMCID: PMC6409110.

Hydatid disease is a parasitic infestation caused by *Echinococcus*, most commonly *Echinococcus granulosus*. Liver is the most common location followed by lungs. Hydatid involvement of gall bladder is a very rare entity, which masqueraded as gall bladder cancer. Here, we attempt to highlight the relevance of this rare disease and discuss this unique case of a 60-year-old male, who presented with gall bladder mass, abdominal pain, and vomiting. The patient was eventually diagnosed as Hydatid disease. The patient has been treated on medical management

and has shown improvement. The manuscript has discussed diagnosis and management of disease along with review of literature.

DOI: 10.5582/irdr.2018.01097

PMCID: PMC6409110

PMID: 30881856

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

58: Jose A, Mahey R, Sharma JB, Bhatla N, Saxena R, Kalaivani M, Kriplani A. Comparison of ferric Carboxymaltose and iron sucrose complex for treatment of iron deficiency anemia in pregnancy- randomised controlled trial. *BMC Pregnancy Childbirth.* 2019 Feb 4;19(1):54. doi: 10.1186/s12884-019-2200-3. PubMed PMID: 30717690; PubMed Central PMCID: PMC6360702.

BACKGROUND: To evaluate the efficacy and safety of intravenous Ferric Carboxymaltose. (FCM) in comparison with intravenous Iron sucrose complex (ISC) for treatment of iron deficiency anemia in pregnancy.

METHODS: A randomized clinical trial was conducted from (January 2016-August 2017). at a tertiary hospital. Pregnant women diagnosed with moderate to severe iron deficiency anaemia were screened for the study. One hundred patients were randomized to receive either intravenous FCM or ISC. Primary outcome was rise in hemoglobin (Hb) from baseline after 12weeks. Secondary outcomes were change in RBC indices, serum iron studies, improvement in fatigue scores, number of visits and perinatal outcome.

RESULTS: Mean rise in Hb at 12weeks was significantly higher in FCM group (29g/L vs 22g/L; p value <0.01). FCM was associated with greater improvement in fatigue scores. Number of visits were significantly less in FCM group. No serious adverse events were noted in either group.

CONCLUSION: Treatment with FCM resulted in rapid replenishment of iron stores in pregnant women with significantly higher Hb rise over a 12week period. The convenient dosing with lesser number of total doses to complete the treatment will lead to better compliance in community setting. **CLINICAL TRIAL REGISTRATION** (WWW.CTRI.NIC.IN): CTRI/2015/09/006224. Registered on 21/07/2017 (Trial registered retrospectively).

DOI: 10.1186/s12884-019-2200-3

PMCID: PMC6360702

PMID: 30717690 [Indexed for MEDLINE]

59: Kalsi AK, Halder A, Jain M, Chaturvedi PK, Sharma JB. Prevalence and reproductive manifestations of macroprolactinemia. *Endocrine.* 2019 Feb;63(2):332-340. doi: 10.1007/s12020-018-1770-6. Epub 2018 Sep 29. PubMed PMID: 30269265.

PURPOSE: Macroprolactinemia is characterized by predominance of macroprolactin molecules in circulation and generally has extra-pituitary origin. Macroprolactin is viewed as biologically inactive, therefore asymptomatic, and thus may not require any treatment or prolonged follow-up. In addition, data on prevalence of macroprolactinemia and its clinical manifestation are also rare. Therefore, the present study was aimed to find out prevalence of macroprolactinemia and its association, if any, with reproductive manifestations.

MATERIAL AND METHODS: Macroprolactin was measured in 102 hyperprolactinemia cases (>100ng/ml prolactin level), 135 physiological hyperprolactinemia cases (50 pregnant and 85 lactating females; >100ng/ml prolactin level) and 24 controls. Poly ethylene glycol (PEG) precipitation method was carried out to screen macroprolactin. Prolactin recovery of <25% was considered overt macroprolactinemia. Detailed clinical data was recorded which included complete medical history, physical examination and hormone measurements besides CT/MRI for

pituitary abnormalities.

RESULTS: Prevalence of macroprolactinemia was 21.57% (22/102) in hyperprolactinemia (prolactin >100ng/ml). There was no case of macroprolactinemia in physiological hyperprolactinemia, or healthy control females. Reproductive manifestations were present in 72.73% (16/22) macroprolactinemia cases, out of which macroprolactinemia was the sole cause of associated reproductive manifestations in 68.7% (11/16) cases. Reversal of reproductive dysfunction/s was observed in five cases with appropriate treatment for high macroprolactin.

CONCLUSION: Macroprolactinemia prevalence was found to be 21.5%, out of which 72.73% cases had associated reproductive dysfunctions.

DOI: 10.1007/s12020-018-1770-6

PMID: 30269265

60: Kamat N, Kedia S, Ghoshal UC, Nehra A, Makharia G, Sood A, Midha V, Gupta V, Choudhuri G, Ahuja V. Effectiveness and safety of adalimumab biosimilar in inflammatory bowel disease: A multicenter study. *Indian J Gastroenterol*. 2019 Feb;38(1):44-54. doi: 10.1007/s12664-018-0922-1. Epub 2019 Jan 15. PubMed PMID: 30645725.

BACKGROUND: Adalimumab has emerged as a useful drug for treating patients with Crohn's disease (CD) and ulcerative colitis (UC), not responding to conventional therapy. There is limited data on effectiveness and safety of adalimumab biosimilar in patients with inflammatory bowel disease (IBD).

METHODS: Patients with IBD who received at least one dose of adalimumab biosimilar from October 2015 to February 2018 were retrospectively included in this multicenter data analysis. Its effectiveness in inducing and maintaining clinical remission at 8, 26, and 52 weeks for CD and UC and safety profile of the drug was studied.

RESULTS: Seventy patients (49 CD; 21 UC) with a median age of 39 (range 13-73) years, male predominance (64.3%), and median (IQR) disease duration of 72 (33-104) months were included. Adalimumab biosimilar was effective in inducing remission (at 8 weeks) in 46.9% and 52.4% patients with CD and UC, respectively, of whom 32.7% and 33.3% (three fourths of remitters) maintained remission over 1 year, respectively. Twenty (28.6%) patients experienced adverse events; seven (10%) were serious of whom three had developed tuberculosis.

CONCLUSIONS: Adalimumab biosimilar in usual clinical practice is safe and effective in inducing and maintaining remission in Indian patients with IBD. Steroid-free clinical remission was observed in one third of patients with UC and CD at 1 year of therapy. Graphical Abstract.

DOI: 10.1007/s12664-018-0922-1

PMID: 30645725

61: Kandasamy D, Sharma R, Gupta AK. Bowel Imaging in Children: Part 2. *Indian J Pediatr*. 2019 Feb 21. doi: 10.1007/s12098-019-02878-8. [Epub ahead of print] PubMed PMID: 30790185.

62: Kandasamy D, Sharma R, Gupta AK. Bowel Imaging in Children: Part 1. *Indian J Pediatr*. 2019 Feb 14. doi: 10.1007/s12098-019-02877-9. [Epub ahead of print] Review. PubMed PMID: 30767163.

63: Kapur S, Bhalla AS, Jana M. Pediatric Chest MRI: A Review. *Indian J Pediatr*. 2019 Feb 5. doi: 10.1007/s12098-018-02852-w. [Epub ahead of print] Review. PubMed PMID: 30719641.

64: Kaushal T, Satapathy S, Chadda RK, Bakhshi S, Sagar R, Sapra S. Hospital Based Psychosocial Support Program for Children with ALL and their Families: A Comprehensive Triad's Perspective. *Indian J Pediatr*. 2019 Feb;86(2):118-125. doi: 10.1007/s12098-018-2679-z. Epub 2018 Apr 21. PubMed PMID: 29679216.

- 65: Khandelwal A, Singh GP, Singh A, Singh S, Prasad C. Intraoperative Generalized Tonic-Clonic Seizure and Consequent Severe Brain Bulge During Functional Motor Cortex Mapping: A Case Report. *A A Pract.* 2019 Feb 1;12(3):66-68. doi: 10.1213/XAA.0000000000000847. PubMed PMID: 30095447.
- 66: Krishna SN, Chauhan S, Bhoi D, Kaushal B, Hasiija S, Sangdup T, Bisoi AK. Bilateral Erector Spinae Plane Block for Acute Post-Surgical Pain in Adult Cardiac Surgical Patients: A Randomized Controlled Trial. *J Cardiothorac Vasc Anesth.* 2019 Feb;33(2):368-375. doi: 10.1053/j.jvca.2018.05.050. Epub 2018 Jun 4. PubMed PMID: 30055991.
- 67: Kumar A, Kumawat D, Sundar M D, Gagrani M, Gupta B, Roop P, Hasan N, Sharma A, Chawla R. Polypoidal choroidal vasculopathy: a comprehensive clinical update. *Ther Adv Ophthalmol.* 2019 Feb 27;11:2515841419831152. doi: 10.1177/2515841419831152. eCollection 2019 Jan-Dec. Review. PubMed PMID: 30834360; PubMed Central PMCID: PMC6393826.
- 68: Kumar P, Singh A, Deshmukh A, Phulware RH, Rastogi S, Barwad A, Chandrashekhara SH, Singh V. Qualitative and quantitative CECT features for differentiating renal primitive neuroectodermal tumor from the renal cell carcinoma and its subtypes. *Br J Radiol.* 2019 Feb;92(1094):20180738. doi: 10.1259/bjr.20180738. Epub 2018 Nov 7. PubMed PMID: 30362816; PubMed Central PMCID: PMC6404838.
- 69: Kumar S, Panda H, Makhdoomi MA, Mishra N, Safdari HA, Chawla H, Aggarwal H, Reddy ES, Lodha R, Kumar Kabra S, Chandele A, Dutta S, Luthra K. An HIV-1 Broadly Neutralizing Antibody from a Clade C-Infected Pediatric Elite Neutralizer Potently Neutralizes the Contemporaneous and Autologous Evolving Viruses. *J Virol.* 2019 Feb 5;93(4). pii: e01495-18. doi: 10.1128/JVI.01495-18. Print 2019 Feb 15. PubMed PMID: 30429339; PubMed Central PMCID: PMC6364018.
- 70: Kumar S, Bhoiriwal S, Muduly D, Kar M, Sharma A, Pathy S, Shukla NK, Deo SVS. Multimodality management of incidentally detected gall bladder cancer: long term results from a tertiary care cancer centre. *J Gastrointest Oncol.* 2019 Feb;10(1):128-133. doi: 10.21037/jgo.2018.09.10. PubMed PMID: 30788168; PubMed Central PMCID: PMC6351296.
- 71: Kumar V. Choroidal osteoma and pattern dystrophy of retinal pigment epithelium. *Int Ophthalmol.* 2019 Feb;39(2):441-444. doi: 10.1007/s10792-017-0806-x. Epub 2017 Dec 19. PubMed PMID: 29260499.
- 72: Kumar V, Goel N. Retinal arteriolar macroaneurysm associated with congenital retinal macro vessel. *Int Ophthalmol.* 2019 Feb;39(2):273-274. doi: 10.1007/s10792-017-0468-8. PubMed PMID: 28233223.
- 73: Kumari M, Khurana S, Bhardwaj N, Malhotra R, Mathur P. Pathogen burden & associated antibiogram of *Pseudomonas* spp. in a tertiary care hospital of India. *Indian J Med Res.* 2019 Feb;149(2):295-298. doi: 10.4103/ijmr.IJMR_14_18. PubMed PMID: 31219098; PubMed Central PMCID: PMC6563749.
- 74: Kumari V, Joshi P, Dhua AK, Sapra S, Srinivas M, Agarwala S, Bhatnagar V. Developmental Status of Children Operated for Esophageal Atresia with or without Tracheoesophageal Fistula Along with Maternal Stress, Their Quality of life, and Coping Abilities at AIIMS, New Delhi. *Eur J Pediatr Surg.* 2019 Feb;29(1):125-131. doi: 10.1055/s-0038-1676825. Epub 2018 Dec 31. PubMed PMID: 30597492.
- 75: Leon C, Sharma R, Kaur S. Attention-deficit/hyperactive disorder: missing the

- bull's eye. *Evid Based Ment Health*. 2019 Feb;22(1):e1. doi: 10.1136/ebmental-2018-300079. Epub 2019 Jan 21. PubMed PMID: 30665988.
- 76: Liu Z, Bychkov A, Jung CK, Hirokawa M, Sui S, Hong S, Lai CR, Jain D, Canberk S, Kakudo K. Interobserver and intraobserver variation in the morphological evaluation of noninvasive follicular thyroid neoplasm with papillary-like nuclear features in Asian practice. *Pathol Int*. 2019 Apr;69(4):202-210. doi: 10.1111/pin.12779. Epub 2019 Feb 27. PubMed PMID: 30811774.
- 77: Mahtab S, Kar P, Saha S, Sreenivas V, Sottini A, Imberti L, Goswami R. Central Immune Tolerance of T and B Cells in Patients With Idiopathic Hypoparathyroidism, T1D, and Autoimmune Thyroiditis. *J Endocr Soc*. 2019 Feb 20;3(6):1175-1184. doi: 10.1210/js.2018-00344. eCollection 2019 Jun 1. PubMed PMID: 31139764; PubMed Central PMCID: PMC6532674.
- 78: Meel R, Dhiman R, Sen S, Kashyap S, Tandon R, Vanathi M. Ocular Surface Squamous Neoplasia with Intraocular Extension: Clinical and Ultrasound Biomicroscopic Findings. *Ocul Oncol Pathol*. 2019 Feb;5(2):122-127. doi: 10.1159/000490251. Epub 2018 Jul 13. PubMed PMID: 30976591; PubMed Central PMCID: PMC6422126.
- 79: Meel R, Dhiman R. Response to 'Comment on: Proposal for a new classification for ocular surface squamous neoplasia'. *Eye (Lond)*. 2019 Feb;33(2):332-333. doi: 10.1038/s41433-018-0241-x. PubMed PMID: 30341427; PubMed Central PMCID: PMC6367312.
- 80: Meena R, Aggarwal A, Bhattacharya A, Gupta V, Dhandapani S, Chhabra R. Non traumatic vertebral lesions: incremental utility of PET-CT over MRI and FNAC in a suggested diagnostic algorithm. *Br J Neurosurg*. 2019 Feb;33(1):25-29. doi: 10.1080/02688697.2017.1301377. Epub 2017 Mar 10. PubMed PMID: 28282998.
- 81: Mittal P, Thakar A. Letter to the Editor Regarding "Combined Minimally Invasive Supraciliary and Transfacial Approach for Large Tumors with Skull Base and Sinonasal Involvement". *World Neurosurg*. 2019 Feb;122:707. doi: 10.1016/j.wneu.2018.09.043. PubMed PMID: 30716870.
- 82: Nag TC, Kathpalia P, Gorla S, Wadhwa S. Localization of nitro-tyrosine immunoreactivity in human retina. *Ann Anat*. 2019 May;223:8-18. doi: 10.1016/j.aanat.2019.01.006. Epub 2019 Feb 1. PubMed PMID: 30716468.
- 83: Nagori SA, Jose A, Roy Chowdhury SK, Roychoudhury A. Is splint therapy required after arthrocentesis to improve outcome in the management of temporomandibular joint disorders? A systematic review and meta-analysis. *Oral Surg Oral Med Oral Pathol Oral Radiol*. 2019 Feb;127(2):97-105. doi: 10.1016/j.oooo.2018.09.010. Epub 2018 Oct 5. Review. PubMed PMID: 30393091.
- 84: Naik RD, Batra A, Gupta VG. Palbociclib and Fulvestrant in Breast Cancer. *N Engl J Med*. 2019 Feb 21;380(8):796. doi: 10.1056/NEJMc1816595. PubMed PMID: 30786199.
- 85: Naranje P, Bhalla AS, Sherwani P. Chest Tuberculosis in Children. *Indian J Pediatr*. 2019 May;86(5):448-458. doi: 10.1007/s12098-018-02847-7. Epub 2019 Feb 14. PubMed PMID: 30762202.
- 86: Narasimhan P, Kashyap L, Mohan VK, Arora MK, Shende D, Srinivas M, Kashyap S,

- Nath S, Khanna P. Comparison of caudal epidural block with paravertebral block for renal surgeries in pediatric patients: A prospective randomised, blinded clinical trial. *J Clin Anesth*. 2019 Feb;52:105-110. doi: 10.1016/j.jclinane.2018.09.007. Epub 2018 Sep 19. PubMed PMID: 30243061.
- 87: Natarajan H, Kumar L, Bakhshi S, Sharma A, Velpandian T, Kabra M, Gogia A, Ranjan Biswas N, Gupta YK. Imatinib trough levels: a potential biomarker to predict cytogenetic and molecular response in newly diagnosed patients with chronic myeloid leukemia. *Leuk Lymphoma*. 2019 Feb;60(2):418-425. doi: 10.1080/10428194.2018.1485907. Epub 2018 Aug 20. PubMed PMID: 30124353.
- 88: Nayak C, Acharyya B, Jain M, Kamboj K. Valgus osteotomy in delayed presentation of femoral neck fractures using fixed angle simple dynamic hip screw and plate. *Chin J Traumatol*. 2019 Feb;22(1):29-33. doi: 10.1016/j.cjte.2018.12.003. Epub 2019 Jan 29. PubMed PMID: 30824174; PubMed Central PMCID: PMC6529366.
- 89: Nayak M, Yadav R, Ganesh V, Digge V. An unusual case of femoral head perforation following fixation with proximal femoral nail antirotation (PFNA-II) for an unstable intertrochanteric fracture: Case report and literature review. *Trauma Case Rep*. 2019 Feb 11;20:100178. doi: 10.1016/j.tcr.2019.100178. eCollection 2019 Apr. PubMed PMID: 30805427; PubMed Central PMCID: PMC6374611.
- 90: Ojha V, Pandey NN, Gulati GS. Shepherd's crook deformity of an early branching acute marginal artery. *Acta Cardiol*. 2019 Feb 8:1-2. doi: 10.1080/00015385.2019.1567661. [Epub ahead of print] PubMed PMID: 30736717.
- 91: Ojha V, Ghati N, Ganga KP, Verma SK, Gulati G. Left anterior descending artery from right coronary sinus and left circumflex artery from pulmonary artery- a rare association. *J Cardiovasc Comput Tomogr*. 2019 Feb 23. pii: S1934-5925(18)30503-3. doi: 10.1016/j.jcct.2019.02.006. [Epub ahead of print] PubMed PMID: 30853368.
- 92: Osoegawa K, Vayntrub TA, Wenda S, De Santis D, Barsakis K, Ivanova M, Hsu S, Barone J, Holdsworth R, Diviney M, Askar M, Willis A, RAILTON D, Laflin S, Gendzekhadze K, Oki A, Sacchi N, Mazzocco M, Andreani M, Ameen R, Stavropoulos-Giokas C, Dinou A, Torres M, Dos Santos Francisco R, Serra-Pages C, Goodridge D, Balladares S, Bettinotti MP, Iglehart B, Kashi Z, Martin R, Saw CL, Ragoussis J, Downing J, Navarrete C, Chong W, Saito K, Petrek M, Tokic S, Padros K, Beatriz Rodriguez M, Zakharova V, Shragina O, Marino SR, Brown NK, Shiina T, Suzuki S, Spierings E, Zhang Q, Yin Y, Morris GP, Hernandez A, Ruiz P, Khor SS, Tokunaga K, Geretz A, Thomas R, Yamamoto F, Mallempati KC, Gangavarapu S, Kanga U, Tyagi S, Marsh SGE, Bultitude WP, Liu X, Cao D, Penning M, Hurley CK, Cesbron A, Mueller C, Mytilineos J, Weimer ET, Bengtsson M, Fischer G, Hansen JA, Chang CJ, Mack SJ, Creary LE, Fernandez-Viña MA. Quality control project of NGS HLA genotyping for the 17th International HLA and Immunogenetics Workshop. *Hum Immunol*. 2019 Apr;80(4):228-236. doi: 10.1016/j.humimm.2019.01.009. Epub 2019 Feb 6. Review. PubMed PMID: 30738112; PubMed Central PMCID: PMC6446570.
- 93: Panda S, Sikka K, Thakar A, Sharma SC, Krishnamurthy P. Transoral robotic surgery for the parapharyngeal space: expanding the transoral corridor. *J Robot Surg*. 2019 Feb 14. doi: 10.1007/s11701-019-00932-3. [Epub ahead of print] PubMed PMID: 30762172.
- 94: Pandav CS. Iodized Salt Consumption. *Indian J Pediatr*. 2019 Mar;86(3):218-219. doi: 10.1007/s12098-019-02893-9. Epub 2019 Feb 12. Review.

PubMed PMID: 30756286.

95: Pandey NN, Rajagopal R, Sharma A, Kumar S. Shepherd's Crook Conal Artery: A Hitherto Unreported Variant. *Ann Thorac Surg.* 2019 Feb;107(2):e135. doi: 10.1016/j.athoracsur.2018.08.089. Epub 2018 Oct 23. PubMed PMID: 30365958.

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

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

© 2018 Wiley Periodicals, Inc.

DOI: 10.1002/prot.25584

PMID: 30007053

97: Patel A, Tiwari A, Biswas B, Chand Sharma M, Vishnubhatla S, Bakhshi S. Clinical Predictors and Prognostic Model for Pediatric Lymphoblastic Lymphoma Treated With Uniform BFM90 Protocol: A Single-Center Experience of 65 Patients From Asia. *Clin Lymphoma Myeloma Leuk.* 2019 Feb 8. pii: S2152-2650(18)31346-6. doi: 10.1016/j.clml.2019.01.008. [Epub ahead of print] PubMed PMID: 30905539.

BACKGROUND: There is a lack of clinical predictors for prognosticating lymphoblastic lymphoma (LBL). In view of this lacuna, we evaluated outcomes and prognostic factors for LBL treated with a uniform protocol at our center.

PATIENTS AND METHODS: This study included consecutive patients of pediatric LBL aged ≤ 18 years from January 2003 to January 2017. Patients were staged using the St Jude staging system. All patients were treated with acute lymphoblastic leukemia like BFM90 protocol. The Kaplan-Meier method was used for survival analysis. A statistical model was made using stepwise regression and forward selection of the factors predicting event-free survival (EFS) and overall survival (OS).

RESULTS: Sixty-five patients were evaluated with a median age of 12 years (range, 1-18 years) and male:female ratio of 2.25:1. Fifty-four patients presented with mediastinal disease. Median follow-up was 54.57 months (range, 0.6-140.5 months). EFS at 10 years was $62 \pm 6\%$ (95% confidence interval [CI], 0.49-0.73) and OS $71 \pm 5\%$ (95% CI, 0.57-0.81). In multivariate analysis, symptom duration ≤ 30 days, white blood cell (WBC) count $>12000/\mu\text{L}$ and serum albumin ≤ 3.5 g/dL predicted inferior EFS and OS. A prognostic model with these 3 factors suggested that those without any of these risk factors had an OS of $92 \pm 5\%$ whereas those with 2 or 3

factors had an OS of $37 \pm 14\%$.

CONCLUSION: Our outcomes are 15% to 20% lower than in the published literature. Low albumin level, high WBC count at baseline, and symptom duration <30 days emerged as adverse predictors for EFS and OS. These clinical predictors and prognostic model for pediatric LBL should be validated in prospective cohorts.

Copyright © 2019 Elsevier Inc. All rights reserved.

DOI: 10.1016/j.clml.2019.01.008

PMID: 30905539

98: Pol MM, Vyas S, Singh P, Rathore YS. Spontaneous cholecystocutaneous fistula: empirically treated for a missed diagnosis, managed by laparoscopy. *BMJ Case Rep.* 2019 Feb 13;12(2). pii: e228138. doi: 10.1136/bcr-2018-228138. PubMed PMID: 30765448.

A 70-year-old woman was referred to our hospital from primary health centre with complaints of pain in the abdomen, swelling and discharging sinus in the right hypochondrium since 2 years. She had received anti-tubercular treatment for 18 months as the wedge biopsy of the sinus tract suggested granulomatous lesion. As the symptoms did not subside she was referred to our hospital. Her blood investigation reports at our hospital were normal. Ultrasound of the abdomen suggested cholelithiasis with normal common bile duct. CT fistulogram findings were diagnostic of cholecystocutaneous fistula (CCCF). She underwent laparoscopic cholecystectomy and excision of the sinus tract. Postoperative recovery was uneventful. Indiscriminate usage of anti-tubercular drugs should be discouraged and possibility of CCCF should be considered in patients presenting with discharging sinus in the anterior abdominal wall. CT fistulogram is helpful in making diagnosis of CCCF. Cholecystectomy with excision of the sinus tract is the treatment of choice.

© BMJ Publishing Group Limited 2019. No commercial re-use. See rights and permissions. Published by BMJ.

DOI: 10.1136/bcr-2018-228138

PMID: 30765448 [Indexed for MEDLINE]

99: Prabhakaran D, Ajay VS, Tandon N. Strategic Opportunities for Leveraging Low-cost, High-impact Technological Innovations to Promote Cardiovascular Health in India. *Ethn Dis.* 2019 Feb 21;29(Suppl 1):145-152. doi: 10.18865/ed.29.S1.145. eCollection 2019. PubMed PMID: 30906163; PubMed Central PMCID: PMC6428188.

Accelerated epidemiological transition in India over the last 40 years has resulted in a dramatic increase in the burden of cardiovascular diseases and the related risk factors of diabetes and hypertension. This increase in disease burden has been accompanied by pervasive health disparities associated with low disease detection rates, inadequate awareness, poor use of evidence-based interventions, and low adherence rates among patients in rural regions in India and those with low socioeconomic status. Several research groups in India have developed innovative technologies and care-delivery models for screening, diagnosis, clinical management, remote-monitoring, self-management, and rehabilitation for a range of chronic conditions. These innovations can leverage advances in sensor technology, genomic tools, artificial intelligence, big-data analytics, and so on, for improving access to and delivering quality and affordable personalized medicine in primary care. In addition, several health technology start-ups are entering this booming market that is set to grow rapidly. Innovations outside biomedical space (eg, protection of traditional wisdom in diet, lifestyle, yoga) are equally important and are part of a comprehensive solution. Such low-cost, culturally tailored, robust innovations to promote health and reduce disparities require partnership among multi-sectors including academia, industry, civil society, and health systems operating in a conducive policy environment that fosters adequate public and private

investments. In this article, we present the unique opportunity for India to use culturally tailored, low-cost, high-impact technological innovations and strategies to ameliorate the perennial challenges of social, policy, and environmental challenges including poverty, low educational attainment, culture, and other socioeconomic factors to promote cardiovascular health and advance health equity.

DOI: 10.18865/ed.29.S1.145

PMCID: PMC6428188 [Available on 2019-08-21]

PMID: 30906163

100: Prasad C, Mahajan C, Sokhal N, Chouhan RS. Difficult Central Venous Cannulation: An Overlooked Intracranial Cause. *J Neurosurg Anesthesiol.* 2019 Feb 21. doi: 10.1097/ANA.0000000000000590. [Epub ahead of print] PubMed PMID: 30807484.

101: Priya S, Nagpal P, Sharma A, Pandey NN, Jagia P. Imaging Spectrum of Double-Outlet Right Ventricle on Multislice Computed Tomography. *J Thorac Imaging.* 2019 Feb 15. doi: 10.1097/RTI.0000000000000396. [Epub ahead of print] PubMed PMID: 30801451.

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

DOI: 10.1097/RTI.0000000000000396

PMID: 30801451

102: Pujari A, Chawla R, Agarwal D, Gagrani M, Kapoor S, Kumar A. Pathomechanism of traumatic indirect choroidal rupture. *Med Hypotheses.* 2019 Mar;124:64-66. doi: 10.1016/j.mehy.2019.02.010. Epub 2019 Feb 2. PubMed PMID: 30798919.

The probable chain of events responsible for choroidal rupture is as follows. During high-speed orbital injuries, the protective ocular reflexes position the eye in an elevated, and abducted position. At this point in time, the anteroposterior compressive forces on to the globe create an eccentrically positioned circle of damaging currents along the posterior ocular coats against a relatively static optic nerve. Because of this eccentricity, a longer radius of curvature is expected to lie along the temporal half of the globe leading to an elastic recoil of the retinal and scleral layers and a fracture along the RPE-Bruch's-Choriocapillaris complex manifesting clinically as choroidal rupture.

Copyright © 2019 Elsevier Ltd. All rights reserved.

DOI: 10.1016/j.mehy.2019.02.010

PMID: 30798919

103: Pujari A, Singh P, Agrawal S, Bajaj MS. Canalicular laceration visualisation using chandelier illumination. *BMJ Case Rep.* 2019 Feb 11;12(2). pii: bcr-2018-227798. doi: 10.1136/bcr-2018-227798. PubMed PMID: 30755428.

104: Pujari A, Mukhija R, Shashni A, Bajaj MS, Sen S. Orbital metastasis from a primary salivary duct carcinoma: importance of long-term follow-up. *Can J Ophthalmol.* 2019 Feb;54(1):e21-e24. doi: 10.1016/j.jcjo.2018.04.018. Epub 2018

Jun 25. PubMed PMID: 30851790.

105: Pujari A, Rakheja V, Bajaj MS, Sen S, Yadav B. Isolated conjunctival histoplasmosis in an elderly patient: a rare but important scenario. *Can J Ophthalmol*. 2019 Feb;54(1):e15-e16. doi: 10.1016/j.jcjo.2018.04.003. Epub 2018 May 16. PubMed PMID: 30851787.

106: Pujari A, Agarwal D, Chawla R, Todi V, Kumar A. Congenital simple hamartoma of the retinal pigment epithelium: What is the probable cause? *Med Hypotheses*. 2019 Feb;123:79-80. doi: 10.1016/j.mehy.2018.12.019. Epub 2018 Dec 27. PubMed PMID: 30696599.

Congenital simple hamartoma of the retinal pigment epithelium is localized to the retinal tissue only with variable amount of surface extension. With consistent morphological and OCT features of the lesion around fovea, it appears that some of the embryologically undifferentiated ectopic progenitor cells destined for RPE within the retinal tissue may not undergo any further differentiation due to lack of necessary homeostatic factors leading to only hyperplasia and accumulation of the cells within the retina leading to simple hamartoma.

Copyright © 2018 Elsevier Ltd. All rights reserved.

DOI: 10.1016/j.mehy.2018.12.019
PMID: 30696599 [Indexed for MEDLINE]

107: Pujari A, Saxena R, Phuljhele S, Bhaskaran K, Basheer S, Sharma P. Pathomechanism of optic nerve avulsion. *Med Hypotheses*. 2019 Apr;125:28-30. doi: 10.1016/j.mehy.2019.02.031. Epub 2019 Feb 11. PubMed PMID: 30902147.

Optic nerve avulsion following peri-orbital trauma is an enigmatic clinical entity. Several mechanisms and ideas have been put forward to derive a logical conclusion, however, each factor independently does not appear to explain the mechanism in a logical way, therefore, here we elaborate the probable chain of events responsible for this complication. During isolated blunt trauma to the orbital framework, the globe continues to move anteriorly without any active resistance, in contrast to the globe, the optic nerve with more delicate bony and soft tissue relations, likely to remain relatively static. Thus the junction between the optic nerve and ocular coat suffers the maximum distractive injury due to anteroposterior tractional forces. In addition to this, physiological Bell's phenomenon may induce torsional tension at this junction leading to further worsening of distractive forces and violent separation of optic nerve from the globe.

Copyright © 2019 Elsevier Ltd. All rights reserved.

DOI: 10.1016/j.mehy.2019.02.031
PMID: 30902147

108: Purkait S, Bansal S, Malgulwar PB. BRAF V600E-mutated central nervous system tumor with divergent morphological feature - Anaplastic pleomorphic xanthoastrocytoma-like and astroblastoma-like. *Neuropathology*. 2019 Feb;39(1):64-67. doi: 10.1111/neup.12527. Epub 2018 Dec 17. PubMed PMID: 30557911.

Mutational analysis of the BRAF gene (BRAF), especially BRAF V600E, is gaining much importance in neuro-oncology practice due to its diagnostic, prognostic and therapeutic implications. This genetic alteration has been described in a wide morphological spectrum of central nervous system tumors. In the present report we describe a BRAF V600E-mutated tumor with divergent morphological appearance comprising of anaplastic pleomorphic xanthoastrocytoma and astroblastoma. Both of these tumor entities are extremely rare and a combined morphology has not been

described till now.

© 2018 Japanese Society of Neuropathology.

DOI: 10.1111/neup.12527

PMID: 30557911 [Indexed for MEDLINE]

109: Raina R, Lam S, Raheja H, Krishnappa V, Hothi D, Davenport A, Chand D, Kapur G, Schaefer F, Sethi SK, McCulloch M, Bagga A, Bunchman T, Warady BA. Pediatric intradialytic hypotension: recommendations from the Pediatric Continuous Renal Replacement Therapy (PCRRT) Workgroup. *Pediatr Nephrol*. 2019 May;34(5):925-941. doi: 10.1007/s00467-018-4190-1. Epub 2019 Feb 8. PubMed PMID: 30734850.

Intradialytic hypotension (IDH) is a common adverse event resulting in premature interruption of hemodialysis, and consequently, inadequate fluid and solute removal. IDH occurs in response to the reduction in blood volume during ultrafiltration and subsequent poor compensatory mechanisms due to abnormal cardiac function or autonomic or baroreceptor failure. Pediatric patients are inherently at risk for IDH due to the added difficulty of determining and attaining an accurate dry weight. While frequent blood pressure monitoring, dialysate sodium profiling, ultrafiltration-guided blood volume monitoring, dialysate cooling, hemodiafiltration, and intradialytic mannitol and midodrine have been used to prevent IDH, they have not been extensively studied in pediatric population. Lack of large-scale studies on IDH in children makes it difficult to develop evidence-based management guidelines. Here, we aim to review IDH preventative strategies in the pediatric population and outlay recommendations from the Pediatric Continuous Renal Replacement Therapy (PCRRT) Workgroup. Without strong evidence in the literature, our recommendations from the expert panel reflect expert opinion and serve as a valuable guide.

DOI: 10.1007/s00467-018-4190-1

PMID: 30734850

110: Raina R, Krishnappa V, Blaha T, Kann T, Hein W, Burke L, Bagga A. Atypical Hemolytic-Uremic Syndrome: An Update on Pathophysiology, Diagnosis, and Treatment. *Ther Apher Dial*. 2019 Feb;23(1):4-21. doi: 10.1111/1744-9987.12763. Epub 2018 Oct 29. Review. PubMed PMID: 30294946.

Atypical hemolytic uremic syndrome (aHUS), a rare variant of thrombotic microangiopathy, is characterized by microangiopathic hemolytic anemia, thrombocytopenia, and renal impairment. The condition is associated with poor clinical outcomes with high morbidity and mortality. Atypical HUS predominantly affects the kidneys but has the potential to cause multi-organ system dysfunction. This uncommon disorder is caused by a genetic abnormality in the complement alternative pathway resulting in over-activation of the complement system and formation of microvascular thrombi. Abnormalities of the complement pathway may be in the form of mutations in key complement genes or autoantibodies against specific complement factors. We discuss the pathophysiology, clinical manifestations, diagnosis, complications, and management of aHUS. We also review the efficacy and safety of the novel therapeutic agent, eculizumab, in aHUS, pregnancy-associated aHUS, and aHUS in renal transplant patients.

© 2018 International Society for Apheresis, Japanese Society for Apheresis, and Japanese Society for Dialysis Therapy.

DOI: 10.1111/1744-9987.12763

PMID: 30294946 [Indexed for MEDLINE]

111: Ramachandran A, Srivastava DN, Gupta AK, Madhusudhan KS. The Double Trouble: A Case of Duplicated Extrahepatic Bile Duct with Choledochal Cyst. *Indian J Pediatr*. 2019 Feb;86(2):186-188. doi: 10.1007/s12098-018-2790-1. Epub 2018 Sep 12. PubMed PMID: 30209736.

Biliary tract shows a large number of anatomic variations and duplication of the bile duct is an extremely rare anomaly. It has been reported to be associated with other congenital conditions like Abnormal Pancreato Biliary Junction (APBJ), biliary atresia and choledochal cyst and may lead to complications like cholangitis, choledocholithiasis and malignancy. The clinical presentation may be with one of the above complications and the condition usually reveals itself only on imaging investigations, as a surprise to the radiologist and the surgeon. Its detection is important prior to any biliary tract surgery to prevent inadvertent bile duct injury. The authors report a case of a rare subtype of extrahepatic bile duct duplication with coexisting choledochal cyst.

DOI: 10.1007/s12098-018-2790-1

PMID: 30209736

112: Rani L, Gogia A, Singh V, Kumar L, Sharma A, Kaur G, Gupta R. Comparative assessment of prognostic models in chronic lymphocytic leukemia: evaluation in Indian cohort. *Ann Hematol.* 2019 Feb;98(2):437-443. doi: 10.1007/s00277-018-3525-0. Epub 2018 Oct 18. PubMed PMID: 30338367.

Prognostic indices combining several clinical and laboratory parameters have been proposed for prognostication in chronic lymphocytic leukemia (CLL). Recently, international consortium on CLL proposed an international prognostic index (CLL-IPI) integrating clinical, molecular, and genetic parameters. The present study was designed to evaluate the reproducibility of CLL-IPI in Indian CLL cohort. The prognostic ability of CLL-IPI in terms of overall survival (OS) and time to first treatment (TTFT) was investigated in treatment-naïve CLL patients and also compared with other existing prognostic scores. For assigning scores, clinical and laboratory details were obtained from medical records, and IGHV gene mutation status, β 2-microglobulin levels, and copy number variations were determined using c-DNA, ELISA, and multiplex ligation-dependent probe amplification (MLPA), respectively. The scores were generated as per the weighted grades assigned to each variable involved in score categorization. The predictive value of prognostic models was assessed and compared using Harrell's C-index and Akaike's information criterion (AIC). Stratification of patients according to CLL-IPI yielded significant differences in terms of OS and TTFT ($p < 0.001$). Comparative assessment of scores for OS suggested better performance of CLL-IPI ($C = 0.64$, $AIC = 740$) followed by Barcelona-Brno ($C = 0.61$, $AIC = 754$) and MDACC score ($C = 0.59$, $AIC = 759$). Comparison of predictive value of prognostic scores for TTFT illustrated better performance of CLL-IPI ($C = 0.72$, $AIC = 726$) followed by Barcelona-Brno ($C = 0.68$, $AIC = 743$), modified GCLLSG ($C = 0.66$, $AIC = 744$), and O-CLL1 index ($C = 0.55$, $AIC = 773$). The results suggest better performance of CLL-IPI in terms of both OS and TTFT as compared to other available scores in our cohort.

DOI: 10.1007/s00277-018-3525-0

PMID: 30338367 [Indexed for MEDLINE]

113: Ranjan R, Sud A, Adhikary D, Sinha A, Chand S. Incidence and risk factors for iatrogenic distal tibia/fibula fracture during Ponseti technique of clubfoot treatment. *J Pediatr Orthop B.* 2019 Feb 6. doi: 10.1097/BPB.0000000000000595. [Epub ahead of print] PubMed PMID: 30741748.

The incidence and risk factors of distal tibia/fibula fracture, an uncommon complication during Ponseti manipulation, are unknown. We evaluated 222 virgin clubfeet of patients aged less than 3 years for fractures of distal tibia/fibula. Incidence rate was found to be 1.3% per year. Associated risk factors were identified as neglected, syndromic clubfeet, feet requiring greater than 10 casts, post-tenotomy dorsiflexion less than 10° and casting by physician with less than 3 years of casting experience, with odds ratios of 14, 28, 4.9, 3.7 and 3.4, respectively. Most of these fractures healed without consequences; however,

it is still advisable not to forcefully dorsiflex while casting, which may result in the fracture of distal tibia/fibula.

DOI: 10.1097/BPB.0000000000000595

PMID: 30741748

114: Rastogi N, Khurana S, Veeraraghavan B, Yesurajan Inbanathan F, Rajamani Sekar SK, Gupta D, Goyal K, Bindra A, Sokhal N, Panda A, Malhotra R, Mathur P. Epidemiological investigation and successful management of a *Burkholderia cepacia* outbreak in a neurotrauma intensive care unit. *Int J Infect Dis.* 2019 Feb;79:4-11. doi: 10.1016/j.ijid.2018.10.008. Epub 2018 Oct 17. PubMed PMID: 30342249.

OBJECTIVE: The detailed epidemiological and molecular characterization of an outbreak of *Burkholderia cepacia* at a neurotrauma intensive care unit of a level 1 trauma centre is described. The stringent infection control interventions taken to successfully curb this outbreak are emphasized.

METHODS: The clinical and microbiological data for those patients who had more than one blood culture that grew *B. cepacia* were reviewed. Bacterial identification and antimicrobial susceptibility testing was done using automated Vitek 2 systems. Prospective surveillance, environmental sampling, and multilocus sequence typing (MLST) were performed for extensive source tracking. Intensive infection control measures were taken to further control the hospital spread.

RESULTS: Out of a total 48 patients with *B. cepacia* bacteraemia, 15 (31%) had central line-associated blood stream infections. Two hundred and thirty-one environmental samples were collected and screened, and only two water samples grew *B. cepacia* with similar phenotypic characteristics. The clinical strains characterized by MLST typing were clonal. However, isolates from the water represented a novel strain type (ST-1289). Intensive terminal cleaning, disinfection of the water supply, and the augmentation of infection control activities were done to curb the outbreak. A subsequent reduction in bacteraemia cases was observed.

CONCLUSION: Early diagnosis and appropriate therapy, along with the rigorous implementation of essential hospital infection control practices is required for successful containment of this pathogen and to curb such an outbreak.

Copyright © 2018 The Authors. Published by Elsevier Ltd.. All rights reserved.

DOI: 10.1016/j.ijid.2018.10.008

PMID: 30342249 [Indexed for MEDLINE]

115: Reed GM, First MB, Kogan CS, Hyman SE, Gureje O, Gaebel W, Maj M, Stein DJ, Maercker A, Tyrer P, Claudino A, Garralda E, Salvador-Carulla L, Ray R, Saunders JB, Dua T, Poznyak V, Medina-Mora ME, Pike KM, Ayuso-Mateos JL, Kanba S, Keeley JW, Houry B, Krasnov VN, Kulygina M, Lovell AM, de Jesus Mari J, Maruta T, Matsumoto C, Rebello TJ, Roberts MC, Robles R, Sharan P, Zhao M, Jablensky A, Udomratn P, Rahimi-Movaghar A, Rydelius PA, Bährer-Kohler S, Watts AD, Saxena S. Innovations and changes in the ICD-11 classification of mental, behavioural and neurodevelopmental disorders. *World Psychiatry.* 2019 Feb;18(1):3-19. doi: 10.1002/wps.20611. PubMed PMID: 30600616; PubMed Central PMCID: PMC6313247.

Following approval of the ICD-11 by the World Health Assembly in May 2019, World Health Organization (WHO) member states will transition from the ICD-10 to the ICD-11, with reporting of health statistics based on the new system to begin on January 1, 2022. The WHO Department of Mental Health and Substance Abuse will publish Clinical Descriptions and Diagnostic Guidelines (CDDG) for ICD-11 Mental, Behavioural and Neurodevelopmental Disorders following ICD-11's approval. The development of the ICD-11 CDDG over the past decade, based on the principles of clinical utility and global applicability, has been the most broadly international, multilingual, multidisciplinary and participative revision process ever implemented for a classification of mental disorders. Innovations in the ICD-11 include the provision of consistent and systematically characterized

information, the adoption of a lifespan approach, and culture-related guidance for each disorder. Dimensional approaches have been incorporated into the classification, particularly for personality disorders and primary psychotic disorders, in ways that are consistent with current evidence, are more compatible with recovery-based approaches, eliminate artificial comorbidity, and more effectively capture changes over time. Here we describe major changes to the structure of the ICD-11 classification of mental disorders as compared to the ICD-10, and the development of two new ICD-11 chapters relevant to mental health practice. We illustrate a set of new categories that have been added to the ICD-11 and present the rationale for their inclusion. Finally, we provide a description of the important changes that have been made in each ICD-11 disorder grouping. This information is intended to be useful for both clinicians and researchers in orienting themselves to the ICD-11 and in preparing for implementation in their own professional contexts.

© 2019 World Psychiatric Association.

DOI: 10.1002/wps.20611

PMCID: PMC6313247

PMID: 30600616

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

117: Roop P, Angmo D, Kamble N, Tomar AS. Uncontrolled neovascular glaucoma - an alarming manifestation of chronic myeloid leukemia on imatinib therapy - a case report and review of literature. *Indian J Ophthalmol*. 2019 Feb;67(2):285-287. doi: 10.4103/ijo.IJO_1288_18. Review. PubMed PMID: 30672497; PubMed Central PMCID: PMC6376821.

A 45-year-old diabetic male, with diabetic retinopathy and medically uncontrolled neovascular glaucoma (NVG) underwent intracameral bevacizumab followed by trabeculectomy, with controlled intraocular pressures (IOP) post-operatively, OD: 12 mmHg; OS: 14 mmHg. Patient was referred to hematology, where he was diagnosed as chronic myeloid leukemia (CML) and started on imatinib mesylate. Thereafter, he presented with recurrence of neovascularization and vascularization of the bleb along with OS vitreous hemorrhage at 6 weeks follow-up. While he was planned for OS vitreo-retinal surgery, he presented with OD spontaneous hyphema with raised IOP (OD: 38 mmHg, OS: 16 mmHg). He had maintained a tight glycemic control. Following imatinib therapy, there was a rapid progression and recurrence of neovascularization, eventually leading to failure of trabeculectomy OD and bilateral severe loss of vision. Imatinib may be implicated in the worsening of NVG in CML patients, especially with co-existing diabetes and thus, such patients should receive regular thorough ophthalmic evaluation as long as imatinib continues.

DOI: 10.4103/ijo.IJO_1288_18

PMCID: PMC6376821

PMID: 30672497 [Indexed for MEDLINE]

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

Keratoconus (KC) is a bilateral corneal dystrophy and a multifactorial, multigenic disorder with an etiology involving a strong environmental component and complex inheritance patterns. The underlying pathophysiology of KC is poorly understood because of potential crosstalk between genetic-epigenetic variants

possibly triggered by the environmental factors. Here, we decode the etiopathological basis of KC using genomic, transcriptomic, proteomic and metabolic approaches. The lack of relevant models that accurately imitate this condition has been particularly limiting in terms of the effective management of KC. Tissue-engineered in vitro models of KC could address this need and generate valuable insights into its etiopathology for the establishment of disease models to accelerate drug discovery.

Copyright © 2018 Elsevier Ltd. All rights reserved.

DOI: 10.1016/j.drudis.2018.10.017

PMID: 30408528

119: Rufai SB, Singh S. Whole-Genome Sequencing of Two Extensively Drug-Resistant Mycobacterium tuberculosis Isolates from India. *Microbiol Resour Announc.* 2019 Feb 14;8(7). pii: e00007-19. doi: 10.1128/MRA.00007-19. eCollection 2019 Feb. PubMed PMID: 30801057; PubMed Central PMCID: PMC6376416.

The emergence of extensively drug-resistant tuberculosis (XDR-TB) presents a considerable challenge and a public health concern due to the high mortality rate of this disease. Whole-genome sequencing (WGS) of XDR-TB isolates is thus essential for understanding the mechanism of drug resistance. Here we report whole-genome sequences of two XDR-TB strains of two lineages from India.

DOI: 10.1128/MRA.00007-19

PMCID: PMC6376416

PMID: 30801057

120: Sadiq M, Nayak M, Farheen A, Digge V. An Unusual Case of Huge Tophaceous Pseudogout Mimicking as a Tumor-Like Lesion around the Ankle Joint: A Case Report and Literature Review. *Case Rep Orthop.* 2019 Feb 25;2019:9617184. doi: 10.1155/2019/9617184. eCollection 2019. PubMed PMID: 30931157; PubMed Central PMCID: PMC6410423.

Pseudogout or calcium pyrophosphate dihydrate deposition disease (CPPD) primarily affects the joints and the periarticular tissues. Tophaceous or tumoral pseudogout is a rare form of this disease which is seen around the joints of extremities. It can be misdiagnosed as a neoplastic condition because of its clinicoradiological similarities, and thus, a proper histopathological examination is indispensable. We report one such case of extra-articular deposition of the CPPD crystals in a 65-year-old man who presented with an asymptomatic swelling around the left ankle. Radiographs showed a dense homogenous calcification, and FNAC revealed dense calcium deposits with numerous rhomboid-shaped crystals. It was managed by en bloc excision, and postoperative biopsy reports confirmed the diagnosis. Possibility of pseudogout should be kept as a differential diagnosis in patients presenting with calcified soft tissue swellings and should be subjected to a detailed histopathological examination for confirmation.

DOI: 10.1155/2019/9617184

PMCID: PMC6410423

PMID: 30931157

121: Sahay P, Singhal D, Nagpal R, Maharana PK, Farid M, Gelman R, Sinha R, Agarwal T, Titiyal JS, Sharma N. Pharmacologic therapy of mycotic keratitis. *Surv Ophthalmol.* 2019 May - Jun;64(3):380-400. doi: 10.1016/j.survophthal.2019.02.007. Epub 2019 Feb 22. Review. PubMed PMID: 30797882.

Mycotic keratitis continues to be an important cause of corneal blindness, especially in tropical and subtropical countries. The prognosis is poor compared with many other forms of keratitis because of the lack of effective antifungal drugs. The currently available antifungal drugs suffer from multiple drawbacks

such as poor ocular penetration, unpredictable bioavailability, and adverse effects associated with systemic medications. Over the last decade, several new drugs and drug-delivery systems have been introduced in an attempt to improve the treatment outcomes. Thorough knowledge of the currently available antifungal drugs, their spectrum of action, and associated adverse effects is essential to deal with cases of mycotic keratitis. We discuss the pharmacologic properties and clinical use of the currently available antifungal drugs.

Copyright © 2019 Elsevier Inc. All rights reserved.

DOI: 10.1016/j.survophthal.2019.02.007

PMID: 30797882

122: Sahu AK, Verma VK, Mutneja E, Malik S, Nag TC, Dinda AK, Arya DS, Bhatia J. Mangiferin attenuates cisplatin-induced acute kidney injury in rats mediating modulation of MAPK pathway. *Mol Cell Biochem.* 2019 Feb;452(1-2):141-152. doi: 10.1007/s11010-018-3420-y. Epub 2018 Aug 6. PubMed PMID: 30083783.

Cisplatin has been confined due to the reported cases of nephrotoxicity. In the present study, an active xanthone, Mangiferin (from *Mangifera indica*) was investigated for its defensive role in cisplatin-induced nephrotoxicity. Male wistar albino rats were divided into six groups i.e., group 1 (normal); group 2 (cisplatin control); group 3, 4, and 5 (mangiferin 10, 20, and 40 mg/kg, i.p.); and per se (40 mg/kg; i.p.). The treatment was given for 10 days. On day 7, single dose of cisplatin 8 mg/kg i.p. was administered to induce nephrotoxicity in all groups except normal and per se. On day 11, animals were anesthetized, blood was taken from heart and serum was separated. Thereafter, rats were sacrificed and kidneys were isolated and preserved for histopathological, ultrastructural, immunohistochemical, and western blot analysis. Cisplatin control group showed significant impairment in renal function due to increased inflammation and oxidative stress which was also confirmed by histopathology and MAPK pathway proteins expression. However, pretreatment with mangiferin 20 and 40 mg/kg significantly reversed the renal function along with the structural changes and the levels of antioxidants. Mangiferin treatment attenuated DNA damage and apoptotic pathway.

DOI: 10.1007/s11010-018-3420-y

PMID: 30083783 [Indexed for MEDLINE]

123: Sahu MK, Balasubramaniam U, C B, Singh SP, Talwar S. Elizabethkingia Meningoseptica: An Emerging Nosocomial Pathogen Causing Septicemia in Critically Ill Patients. *Indian J Crit Care Med.* 2019 Feb;23(2):104-105. doi: 10.5005/jp-journals-10071-23127. PubMed PMID: 31086457; PubMed Central PMCID: PMC6487604.

Elizabethkingia meningoseptica (*E. meningoseptica*), is an opportunistic Gram-negative bacteria, normally found in water and soil, notorious for causing nosocomial infections in extremes of ages and immunocompromised patients. It is now emerging as a serious nosocomial pathogen, intrinsically resistant to several commonly used antibiotics (e.g. beta-lactams, aminoglycosides, carbapenems and colistin etc. and a cause of high mortality in critically ill patients in intensive care units (ICUs). We report the first case of *E. meningoseptica* sepsis in a 5 month old child after open heart surgery for transposition of great arteries, initially on extracorporeal membrane oxygenation, then prolonged mechanical ventilation, with various invasive devices, inotropes and exposed to broad spectrum antibiotics in our ICU. The case highlights the potential risk factors responsible for *E. meningoseptica* sepsis. Its unusual pattern of resistance to many commonly used antibiotics makes this organism difficult to treat. How to cite this article: Sahu MK, Balasubramaniam U et al. *Elizabethkingia Meningoseptica: An Emerging Nosocomial Pathogen Causing Septicemia in Critically Ill Patients.* *Indian J of Crit Care Med* 2019;23(2):104-105.

DOI: 10.5005/jp-journals-10071-23127
PMCID: PMC6487604
PMID: 31086457

124: Sahu V, Mohan A, Dey S. p38 MAP kinases: plausible diagnostic and prognostic serum protein marker of non small cell lung cancer. *Exp Mol Pathol*. 2019 Apr;107:118-123. doi: 10.1016/j.yexmp.2019.01.009. Epub 2019 Feb 14. PubMed PMID: 30771292.

INTRODUCTION: p38 MAPK signaling molecules plays a dual role in cancer, both progression and suppression. Elevated expression of p38 α was reported in lung cancer tissue in rat model. Our objective was to explore the concentration of all 4 isoforms of p38MAPK in serum of Non Small Cell Lung Cancer (NSCLC).

MATERIAL AND METHODS: The blood samples were collected from 77 NSCLC patients, 52 ethically matched healthy controls and 18 follow up patients were collected as some patients expired and some discontinued the treatment. The concentration of all isoforms of p38 (p38 α , p38 β , p38 γ , and p38 δ) were evaluated by Surface Plasmon Resonance (SPR) technology.

RESULT: The levels of all isoforms of serum p38 were significantly elevated at pre-therapy compare to control. Only p38 α expression was significantly associated with tumor stage and its expression reduced after treatment which is then validated by western blot. However, no changes were observed in other isoforms after therapy.

CONCLUSION: Our study revealed that, p38 α is more efficient among all the isoform to predict the disease accurately and it can be concluded that p38 MAPK may be used as diagnostic as well as prognostic marker of NSCLC disease.

Copyright © 2019. Published by Elsevier Inc.

DOI: 10.1016/j.yexmp.2019.01.009
PMID: 30771292 [Indexed for MEDLINE]

125: Sakthivel P, Prashanth A, Thakar A, Kumar R, Kumar R. Juvenile Nasal Angiofibroma on 68Ga-PSMA PET/CT: Opening New Frontiers. *Clin Nucl Med*. 2019 Feb;44(2):e118-e119. doi: 10.1097/RLU.0000000000002387. PubMed PMID: 30516685.

The prostate-specific membrane antigen (PSMA) is highly expressed in prostatic cancer. However, PSMA expression is also noted in various benign and malignant nonprostatic neoplasms in the endothelial cells of tumor-associated neovasculature. We performed Ga-PSMA PET/CT in a 14-year-old boy with juvenile nasal angiofibroma (JNA) to explore its theranostic potential. The scan revealed high uptake in the lesion. Performance of PSMA PET/CT in JNA opens up new frontiers with respect to radiological staging, early recurrence identification, and perhaps even radioligand therapy of residual/recurrent JNAs in the future.

DOI: 10.1097/RLU.0000000000002387
PMID: 30516685 [Indexed for MEDLINE]

126: Saxena A. Status of Pediatric Cardiac Care in Developing Countries. *Children (Basel)*. 2019 Feb 25;6(2). pii: E34. doi: 10.3390/children6020034. Review. PubMed PMID: 30823591; PubMed Central PMCID: PMC6406635.

About 1.35 million babies are born with congenital heart disease each year globally. Most of these are expected to lead normal, productive lives if they are treated in time. However, 90% of babies born with congenital heart disease live in regions where medical care is inadequate or unavailable. The privilege of early diagnosis and timely intervention is restricted to only those born in developed countries. Added to the burden of congenital heart disease is rheumatic heart disease, which remains a global health problem in many low-income and middle-income countries. Providing optimal care for all these children is a daunting task, and requires funds and proper planning at various levels of the health care system. This article describes the burden of pediatric heart disease,

including lacunae in the current state, as well as challenges and opportunities for providing optimal care to this large population of children.

DOI: 10.3390/children6020034

PMCID: PMC6406635

PMID: 30823591

127: Saxena R, Dhiman R. Commentary: Adjustable strabismus surgery. *Indian J Ophthalmol.* 2019 Feb;67(2):263. doi: 10.4103/ijo.IJO_1000_18. PubMed PMID: 30672483; PubMed Central PMCID: PMC6376815.

128: Selvan H, Angmo D, Tomar AS, Yadav S, Sharma A, Dada T. Changes in Intraocular Pressure and Angle Status After Phacoemulsification in Primary Angle Closure Hypertension. *J Glaucoma.* 2019 Feb;28(2):105-110. doi: 10.1097/IJG.0000000000001137. PubMed PMID: 30689605.

PURPOSE: To study the change in intraocular pressure (IOP) and angle status after phacoemulsification in a cohort of primary angle closure hypertension (PACHT) patients.

SETTING: Tertiary Eye Care, India.

DESIGN: Prospective interventional case-series.

METHODS: Case-series of 18 eyes of 18 patients. Preoperative biometry including axial length, anterior chamber depth (ACD), lens thickness, and central corneal thickness were studied. Preoperative and postoperative IOP, number of topical glaucoma medications, angle swept source optical coherence tomography (SS-OCT) parameters of nasal and temporal angle opening distance, trabecular iris space area, scleral spur angle, lens vault and circumferential iridotrabecular contact (ITC) were studied and their correlations derived.

RESULTS: The mean preoperative IOP, 31 ± 6 mmHg, decreased to 14 ± 1 mmHg at 6-months postoperative period, $P < 0.001$, a fall by $58 \pm 14\%$. The number of glaucoma medications reduced from 4(3-5) to 2(1-3), $P < 0.001$. All SS-OCT studied parameters denoted significant angle widening postsurgery. The ITC% reduced from 52(16-100) to 19(0-97), $P < 0.001$. The preoperative ITC showed moderate to strong correlation with all preoperative nasal and temporal angle parameters. It also showed moderate positive correlation with percentage fall in IOP at 1-month postoperative period. The preoperative ACD showed significant negative correlation with preoperative and postoperative ITC.

CONCLUSIONS: PACHT patients benefit significantly from cataract surgery with marked angle widening, IOP reduction and a decrease in the number of glaucoma medications. The SS-OCT derived circumferential iridotrabecular contact index can be used as the single best parameter to indicate the preoperative angle status and predict postoperative change in IOP, as against the numerous single section measured angle parameters.

DOI: 10.1097/IJG.0000000000001137

PMID: 30689605

129: Sen S, Patil M, Saxena R, Kumar A, Amar SP, Das D, Brar AS, Saini P. Perceived difficulties and complications in learners of phacoemulsification: A principal component analysis model. *Indian J Ophthalmol.* 2019 Feb;67(2):213-216. doi: 10.4103/ijo.IJO_1133_18. PubMed PMID: 30672472; PubMed Central PMCID: PMC6376833.

Purpose: To evaluate the difficulty perceived of each step of phacoemulsification and analyze the factors affecting them.

Methods: Overall, 12 trainee residents were allotted 10 cases of phacoemulsification of eyes with senile cataract, under a single observer, and the steps of each surgery were rated from very easy to very difficult with a questionnaire. The completion rates of steps and complications of each surgery were noted. Principal component analysis of the responses to the difficulty level questionnaire was conducted to obtain factors resulting in the perceived

difficulty.

Results: The lowest difficulty scores were for initial step of incision creation (1.63 ± 0.84), followed by intraocular lens insertion (2.51 ± 0.8). The most difficult step was divide/chop of the nucleus (3.74 ± 0.97) followed by phacoemulsification (3.32 ± 0.82). Highest completion rates were seen for the initial steps of the surgery and the lowest for divide/chop. We identified two major patterns of difficulty among the trainees - one for steps involving high amount of binocularity and the other, for steps involving high precision of hand control. The rate of complication of our study was within acceptable range.

Conclusion: Although trainees have practiced phacoemulsification steps on simulation, real-life situation may bring in unprecedented level of difficulty and challenges, which may be documented and used for targeted improvement of surgical skills. Stereopsis and hand control training should form a major part of training modules of cataract surgery both on simulation and real-life scenarios.

DOI: 10.4103/ijo.IJO_1133_18

PMCID: PMC6376833

PMID: 30672472 [Indexed for MEDLINE]

130: Shah SB, Khanna P, Bhatt R, Goyal P, Garg R, Chawla R. Perioperative anaesthetic concerns in transgender patients: Indian perspective. *Indian J Anaesth.* 2019 Feb;63(2):84-91. doi: 10.4103/ija.IJA_640_18. PubMed PMID: 30814744; PubMed Central PMCID: PMC6383476.

Medical care of transgender patients is not only legally bound but also ethically required. Globally, 0.5%-0.9% of the adult population exhibits a gender different from their birth sex, but there is a dearth of transgender-friendly hospitals stemming from ignorance to disdain for this marginalised community. With gradually increasing acceptance of the transgender patients in the society, healthcare professionals must gear up to deal with issues specific and unique to this group of population. These concerns remain important to understand for an optimal perioperative care. The medical concerns transcend international boundaries, whereas legal, social, economic and psychological concerns vary from place to place. There is a need for modification of curriculum and training for healthcare personnel to foster sensitivity and empathy in patient dealing, to allow for an unbiased optimal healthcare. Such patients require a thorough assessment in a comfortable environment considering their specific needs. A plan for perioperative care needs to be done and discussed with the patient and the perioperative care team as well. There is scarce literature with regard to perioperative care in the transgender patients and hence requires more research.

DOI: 10.4103/ija.IJA_640_18

PMCID: PMC6383476

PMID: 30814744

131: Shakrawal J, Temkar S, Sihota R, Venkatesh P. Suprachoroidal hemorrhage after removal of releasable suture with globe massage post-trabeculectomy. *Indian J Ophthalmol.* 2019 Feb;67(2):287-289. doi: 10.4103/ijo.IJO_452_18. PubMed PMID: 30672498; PubMed Central PMCID: PMC6376830.

A 19-year-old female, having aniridia with secondary glaucoma, presented with uncontrolled intraocular pressure (IOP) in the right eye (RE) on maximal topical and systemic medications. On examination, RE had a subluxated cataractous lens with advanced cupping. She underwent trabeculectomy with mitomycin C. On postoperative day 1, as the IOP was 32 mmHg, one releasable suture was removed followed by gentle bleb massage. On postoperative day 2, suprachoroidal hemorrhage was noted, for which the patient underwent two drainage procedures. Hemorrhagic choroidals resolved completely 4 weeks after drainage.

DOI: 10.4103/ijo.IJO_452_18

PMCID: PMC6376830

PMID: 30672498 [Indexed for MEDLINE]

132: Shankar A, Patil J, Sethi N, Chakraborty A, Bharati SJ, Mandrelle K, Luther A, Bhandari R, Rath GK. Urinary Dysfunction Assessment in Long-Term Survivors of Carcinoma Cervix Using LENT SOMA Scale: An Indian Study Addressing Quality of Life Issues. *Asian Pac J Cancer Prev*. 2019 Feb 26;20(2):383-389. PubMed PMID: 30803196.

Background: Carcinoma cervix is the second most common type of cancer in the world. With the increasing proportion of women surviving carcinoma of the cervix, quality of life has been an important clinical issue. Since there are very few studies from India, this study is to assess urinary dysfunction issues in patients of carcinoma cervix treated with multimodality therapy using the LENT SOMA scores. Methods: The study was prospective and patients treated between 1995 - 2007 on follow up were included in this study after ethical clearance. A total of 85 patients were accrued comprising 6 stage IB, 6 stage II A, 25 stage II B, 2 stage IIIA, 45 stage III B and 1 stage IV A disease. Sixty-six patients were treated with radiotherapy in which 46 patients received chemoradiotherapy and 19 had surgery prior to post-operative radiotherapy. The mean age was 47.81 years with a range of 25-68 years. Completion of LENT SOMA scale and Statistical analysis was done. Results: Mean score for BU (Bladder/Urethra) was highest (0.0758) in fifth year of treatment whereas UK (Ureter/Kidney score was highest (0.0408) after 4 years. Bladder score was more in 60-69 years of age and in stage IIIB patients of cervical cancers. Bladder morbidity was more in patients who received chemoradiotherapy and in patients who received radiotherapy with boost where Bladder and Urethra morbidity was more in patients who were treated with Extended Field radiation. Conclusions: The LENT SOMA system was acceptable and feasible to use and gave us an insight into the morbidity in our patients and to develop effective management plans to reduce the post treatment symptoms and improve quality of life.

Creative Commons Attribution License

DOI: 10.31557/APJCP.2019.20.2.383

PMID: 30803196

133: Sharawat IK, Dawman L. Acute Focal Dystonia After a Single Dose of Oral Cetirizine in a 9-Year-Old Boy. *Pediatr Emerg Care*. 2019 Feb;35(2):e30-e31. doi: 10.1097/PEC.0000000000001062. PubMed PMID: 28169979.

Common cold is an acute illness affecting pediatric population in particular. The use of antihistamines is a common practice, with cetirizine being a frequently used drug with a good safety profile. However, adverse events due to the use of antihistamines have been rarely reported, such as drug-induced dystonia with the use of cetirizine. In our present case, dystonia due to the intake of cetirizine was observed, which the patient responded well to the use of benzodiazapines, namely, clonazepam. We report this case to highlight the occurrence of this adverse event with the use of cetirizine.

DOI: 10.1097/PEC.0000000000001062

PMID: 28169979 [Indexed for MEDLINE]

134: Sharma BS, Sawarkar DP, Verma SK. Endoscopic Management of Fourth Ventricle Neurocysticercosis: Description of the New Technique in a Case Series of 5 Cases and Review of the Literature. *World Neurosurg*. 2019 Feb;122:e647-e654. doi: 10.1016/j.wneu.2018.10.117. Epub 2018 Oct 26. Review. PubMed PMID: 30814022.

BACKGROUND: Around 7%-33% of cases of neurocysticercosis (NCC) have intraventricular involvement, and the fourth ventricle is the most frequent site. Medical management and various surgical approaches have been described for treating this disease. The objective of this study was to describe technical modification for endoscopic fourth ventricular NCC removal in a series of 5 cases.

METHODS: In this study (January 1, 2016, to December 31, 2017), all cases of fourth ventricular NCC which were treated with a special technique (endoscopic transcortical transforaminal transaqueductal approach) using a rigid endoscope system and 6-French infant feeding tube (IFT) were included in the study. The IFT was passed through the main channel, the cyst was engaged at the tip by applying gentle suction with a 20 cm³ syringe, and the cyst was removed along with the whole endoscopic assembly. Patient's clinical, radiologic, and follow-up data were retrieved from the department database records.

RESULTS: Five patients (3 men, 2 women; mean age, 20 years; range, 11-27 years) were enrolled. All patients had features of raised intracranial pressure. Two patients also had drop attacks, and one presented with altered sensorium and one had upgaze palsy. Duration of symptoms ranged from 3 months to 3 years. All patients had isolated fourth ventricular NCC with obstructive hydrocephalus. Complete removal of the neurocysticercal cyst could be performed in all patients without any injury to the periaqueductal region or fornix. There was no intraoperative rupture of the neurocysticercal cyst. On follow-up (range, 12-28 months; mean, 19.4 months), all patients had relief of symptoms and imaging showed no cyst and hydrocephalus.

CONCLUSIONS: We conclude that our endoscopic approach is safe, simple, cost-effective, and allows minimally invasive removal of the fourth ventricle cyst and treatment of hydrocephalus without any morbidity.

Copyright © 2018 Elsevier Inc. All rights reserved.

DOI: 10.1016/j.wneu.2018.10.117

PMID: 30814022 [Indexed for MEDLINE]

135: Sharma KA, Das D, Dadhwal V, Deka D, Singhal S, Vanamail P. Two-dimensional fetal biometry versus three-dimensional fractional thigh volume for ultrasonographic prediction of birthweight. *Int J Gynaecol Obstet.* 2019 Apr;145(1):47-53. doi: 10.1002/ijgo.12770. Epub 2019 Feb 20. PubMed PMID: 30702147.

OBJECTIVE: To develop and validate birthweight prediction models using fetal fractional thigh volume (TVol) in an Indian population, comparing them with existing prediction models developed for other ethnicities.

METHODS: A prospective observational study was conducted among 131 pregnant women (>36 weeks) attending a tertiary hospital in New Delhi, India, for prenatal care between December 1, 2014, and November 1, 2016. Participants were randomly divided into formulating (n=100) and validation (n=31) groups. Multiple regression analysis was performed to generate four models to predict birthweight using various combinations of two-dimensional (2D) ultrasonographic parameters and a three-dimensional (3D) ultrasonographic parameter (TVol). The best fit model was compared with previously published 2D and 3D models.

RESULTS: The best fit model comprised biparietal diameter, head circumference, abdominal circumference, and TVol. This model had the lowest mean percentage error (0.624 ± 8.075) and the highest coefficient of determination ($R^2 = 0.660$). It correctly predicted 70.2% and 91.6% of birthweights within 5% and 10% of actual weight, respectively. Compared with previous models, attributability for the 2D and 3D models was 0.65 and 0.55, respectively. Accuracy was -0.05 ± 1.007 and -2.54 ± 1.11 , respectively.

CONCLUSION: Models that included TVol provided good prediction of birthweight in the target population.

© 2019 International Federation of Gynecology and Obstetrics.

DOI: 10.1002/ijgo.12770

PMID: 30702147 [Indexed for MEDLINE]

136: Sharma N, Venugopal R, Maharana PK, Chaniyara M, Agarwal T, Pushker N, Pandey RM, Sangwan S, Sen S, Kashyap S, Sharma A, Khanna N, Vajpayee RB. Multi-Step Grading System for Evaluation of Chronic Ocular Sequelae in Patients

with Stevens-Johnson Syndrome. Am J Ophthalmol. 2019 Feb 4. pii: S0002-9394(19)30049-2. doi: 10.1016/j.ajo.2019.01.028. [Epub ahead of print] PubMed PMID: 30731084.

PURPOSE: To propose a new scoring system for grading of chronic ocular sequelae in Stevens-Johnson syndrome (SJS).

DESIGN: Reliability and validity analysis **PARTICIPANTS:** Four hundred eyes of 200 patients with chronic ocular SJS/TEN were included in the study.

SETTINGS: Single centre, tertiary eye care referral centre **METHODS:** All patients of SJS/TEN with chronic (more than one year) ocular sequelae were recruited for the study. Corneal, eyelid and conjunctival signs were evaluated and given scores ranging from 0 to 5 depending on the increasing severity. Twelve signs (6 corneal, 3 conjunctival and 3 eyelid) were evaluated to obtain the total severity score for each eye. Based on the corrected distance visual acuity (CDVA) and total score, each eye was graded using receiver operating characteristic (ROC) analysis.

MAIN OUTCOME MEASURES: Correlation of CDVA with the severity score determined on the basis of 12 corneal, eye lid and conjunctival signs.

RESULTS: The study included 400 eyes of 200 patients. Mean age was 24.09 ± 10.9 years. The most common inciting agent for SJS was oral medications (85%). The scores of 12 ocular surface parameters correlated significantly with CDVA ($p < 0.001$). ROC analysis revealed four grades of total severity score of 0 to 11 (Stage 0), 12 to 16 (Stage 1), 17 to 22 (Stage 2) and 23 to 53 (Stage 3). The total severity score correlated significantly with logMAR visual acuity grades with an agreement of 60.7% using Cohen's kappa analysis (Kappa coefficient = 0.420 ± 0.03). The most common stage of total severity score SJS eye was Stage 3 in 49% eyes (196/400) eyes followed by Stage 0 (107/400, 26.7%).

CONCLUSIONS: The multi-step scoring system of chronic ocular features in SJS/TEN sequelae is a useful tool to grade all levels of severity. This may help to evaluate the efficacy of the surgical intervention by comparing preoperative with postoperative ocular grades.

Copyright © 2019. Published by Elsevier Inc.

DOI: 10.1016/j.ajo.2019.01.028
PMID: 30731084

137: Sharma N, Sahay P, Maharana PK, Singhal D, Saluja G, Bandivadekar P, Chako J, Agarwal T, Sinha R, Titiyal JS, Satpathy G, Velpandian T. Management Algorithm for Fungal Keratitis: The TST (Topical, Systemic, and Targeted Therapy) Protocol. Cornea. 2019 Feb;38(2):141-145. doi: 10.1097/ICO.0000000000001781. PubMed PMID: 30334872.

PURPOSE: To evaluate the efficacy of the topical, systemic and targeted therapy (TST) protocol in management of fungal keratitis.

METHOD: All cases of treatment-naïve smear- or culture-proven fungal keratitis presenting between June 2013 and May 2017 were recruited. The TST protocol included initial treatment with topical natamycin 5% with addition of oral ketoconazole or voriconazole in ulcers with size >5 mm, depth $>50\%$, or impending perforation. Topical voriconazole 1% was included in case of poor response at 7 to 10 days. Intrastromal or intracameral antifungal injections were administered in case of poor response to combination therapy. Penetrating keratoplasty was performed in case of poor response to any of the regimen.

RESULTS: The study included 223 cases of fungal keratitis with a mean age of 43.6 ± 15.3 years and a male-to-female ratio of 1.8:1. The mean area of the ulcer and infiltrate at presentation was 25.52 ± 19 and 25.7 ± 14.4 mm, respectively. Corrected distance visual acuity at presentation was 2.05 ± 0.43 logMAR that improved to 1.6 ± 0.4 logMAR at 3 months. Fusarium (42.2%) was the most common microorganism isolated, followed by Aspergillus (32.8%). The mean healing time was 41.5 ± 22.2 days, with a final scar size of 14.6 ± 8.2 mm. The treatment success rate with the TST protocol was 79.8%. Corneal perforation developed in 7% of cases ($n = 15$), and keratoplasty was performed for 20.2% of cases ($n = 45$).

CONCLUSIONS: The TST protocol provides a stepwise treatment algorithm for management of cases of fungal keratitis with varying severity.

DOI: 10.1097/ICO.0000000000001781

PMID: 30334872 [Indexed for MEDLINE]

138: Sharma R. Congenital Adrenal Hyperplasia and Growth Outcomes. *Indian J Pediatr.* 2019 Feb;86(2):111-112. doi: 10.1007/s12098-018-2841-7. Epub 2019 Jan 4. Review. PubMed PMID: 30607772.

139: Sharma S, Sheoran A, Gupta KB, Yadav A, Varma-Basil M, Sreenivas V, Chaudhary D, Mehta PK. Quantitative detection of a cocktail of mycobacterial MPT64 and PstS1 in tuberculosis patients by real-time immuno-PCR. *Future Microbiol.* 2019 Feb;14:223-233. doi: 10.2217/fmb-2018-0284. Epub 2019 Jan 21. PubMed PMID: 30663893.

AIM: There is an urgent need to design a reliable diagnostic test for tuberculosis (TB).

METHODS: Real-time immuno-PCR (RT-I-PCR) assay was devised for the quantitative detection of a cocktail of mycobacterial MPT64 (Rv1980c) and PstS1 (Rv0934) in TB patients.

RESULTS: A broad dynamic range of 0.95 pg/ml-95 ng/ml of MPT64+PstS1 was detected in TB patients. In smear-positive (n = 59) and smear-negative (n = 42) pulmonary TB cases, sensitivities of 93.2 and 83.3% were observed, respectively with 92.8% specificity, whereas a sensitivity of 77.9% and a specificity of 91.3% were observed in extrapulmonary TB cases (n = 86). Furthermore, significantly reduced MPT64+PstS1 concentrations (p < 0.001) were noticed in patients on therapy by RT-I-PCR as compared with untreated patients.

CONCLUSION: Our RT-I-PCR assay revealed high sensitivity especially for the rapid diagnosis of smear-negative pulmonary TB and paucibacillary extrapulmonary TB samples, which could also monitor the dynamics of disease in patients on therapy.

DOI: 10.2217/fmb-2018-0284

PMID: 30663893 [Indexed for MEDLINE]

140: Sharma S, Gupta DK. Early vaginal replacement in cloacal malformation. *Pediatr Surg Int.* 2019 Feb;35(2):263-269. doi: 10.1007/s00383-018-4407-1. Epub 2018 Oct 30. PubMed PMID: 30377758.

PURPOSE: We assessed the surgical outcome of cloacal malformation (CM) with emphasis on need and timing of vaginal replacement.

METHODS: An ambispective study of CM was carried out including prospective cases from April 2014 to December 2017 and retrospective cases that came for routine follow-up. Early vaginal replacement was defined as that done at time of bowel pull through. Surgical procedures and associated complications were noted. The current state of urinary continence, faecal continence and renal functions was assessed.

RESULTS: 18 patients with CM were studied with median age at presentation of 5 days (1 day-4 years). 18;3;2 babies underwent colostomy; vaginostomy; vesicostomy. All patients underwent posterior sagittal anorectovaginourethroplasty (PSARVUP)/ Pull through at a median age of 13 (4-46) months. Ten patients had long common channel length (>3 cm). Six patients underwent early vaginal replacement at a median age of 14 (7-25) months with ileum; sigmoid colon; vaginal switch; hemirectum in 2;2;1;1. Three with long common channel who underwent only PSARVUP had inadequate introitus at puberty. Complications included anal mucosal prolapse, urethrovaginal fistula, perineal wound dehiscence, pyometrocopolpos, bladder injury and pelvic abscess. Persistent vesicoureteric reflux remained in 8. 5;2 patients had urinary; faecal incontinence. 2 patients of uterus didelphys are having menorrhagia. One patient succumbed to sepsis at 7 months age. Renal functions remained normal in 16. One patient is undergoing dialysis.

CONCLUSION: Early vaginal replacement in CM is feasible. Patients with inadequate introitus may suffer from menorrhagia. A regular follow-up is mandatory.

DOI: 10.1007/s00383-018-4407-1

PMID: 30377758 [Indexed for MEDLINE]

141: Shin SS, Carpenter CL, Ekstrand ML, Wang Q, Grover S, Zetola NM, Yadav K, Sinha S, Nyamathi AM. Cervical cancer awareness and presence of abnormal cytology among HIV-infected women on antiretroviral therapy in rural Andhra Pradesh, India. *Int J STD AIDS*. 2019 May;30(6):586-595. doi: 10.1177/0956462419825950. Epub 2019 Feb 27. PubMed PMID: 30813859; PubMed Central PMCID: PMC6510620.

Cervical cancer is a leading cause of death among women in low- and middle-income countries, and women living with HIV are at high risk for cervical cancer. The objective of this study was to estimate the prevalence and correlates of cervical cancer and pre-cancer lesions and to examine cervical cancer knowledge among women living with HIV receiving antiretroviral therapy in rural Andhra Pradesh, India. We conducted cytology-based screening and administered a standardized questionnaire among 598 HIV-infected women. We found 5 (0.8%), 39 (6.5%), 29 (4.9%), and 4 (0.7%) had atypical squamous cells of undetermined significance (ASCUS), low-grade squamous intraepithelial lesion (LSIL), high-grade squamous intraepithelial lesion (HSIL), and squamous cervical carcinoma (SCC), respectively. In multivariable logistic regression analysis, ASCUS/LSIL was independently associated with age >16 years old at first sexual encounter and smokeless tobacco use. We found no factors associated with HSIL/SCC. In total, 101 women (16.9%) had heard of cervical cancer and 28 (27.7%) of them correctly identified HIV infection as a risk factor. In light of the high prevalence of pre-cancer lesions and low level of cervical cancer knowledge in our study population, focused interventions are needed to improve cervical cancer literacy and prevention among rural women living with HIV.

DOI: 10.1177/0956462419825950

PMCID: PMC6510620 [Available on 2020-05-01]

PMID: 30813859

142: Singh A, Lodha R, Shastri S, Sethuraman G, Sreedevi KN, Kabra M, Kabra SK. Aquagenic Wrinkling of Skin: A Screening Test for Cystic Fibrosis. *Indian Pediatr*. 2019 Feb 15;56(2):109-113. PubMed PMID: 30819988.

OBJECTIVE: To study the utility of aquagenic wrinkling as screening test for children with cystic fibrosis.

DESIGN: Evaluation of diagnostic test.

SETTING: Pediatric Chest Clinic, and Pediatric Wards of a tertiary care hospital in New Delhi.

PARTICIPANTS: Three groups (children with cystic fibrosis, carriers of cystic fibrosis, and controls).

METHODS: Time taken to develop aquagenic wrinkling was measured. The test was performed by asking the enrolled subject to put their one hand in water and was checked for development of wrinkling every minute, and a photograph was also taken every minute.

RESULTS: A total of 64 children with cystic fibrosis, 64 controls and 64 carriers were enrolled in the study. Median (IQR) time to develop aquagenic wrinkling in the three groups was 2 (2.5,3) minutes, 4 (3,5) minutes and 8 (5,11) minutes, respectively. The optimal cut-off was calculated as 3 minutes by Receiver operating characteristic curve with a sensitivity and specificity for identification of children with cystic fibrosis as 81% and 57%, respectively. The area under curve was 76.5%. The 3 minute cut-off for development of aquagenic wrinkling was applied to 54 children referred for sweat test. 20 children had sweat chloride values of ≥ 60 mEq/l and diagnosed as cystic fibrosis. 15 of these developed aquagenic wrinkling at ≤ 3 minutes, giving a sensitivity of 75%.

CONCLUSIONS: In places with no facility for sweat test, children with phenotype compatible with cystic fibrosis who develop aquagenic wrinkling in 3 minutes may

be diagnosed as probable cystic fibrosis and referred for confirmation by sweat test.

PMID: 30819988

143: Singh A, Singh PK, de Groot T, Kumar A, Mathur P, Tarai B, Sachdeva N, Upadhyaya G, Sarma S, Meis JF, Chowdhary A. Emergence of clonal fluconazole-resistant *Candida parapsilosis* clinical isolates in a multicentre laboratory-based surveillance study in India. *J Antimicrob Chemother.* 2019 Feb 11. doi: 10.1093/jac/dkz029. [Epub ahead of print] PubMed PMID: 30753525.

Objectives: The emergence of fluconazole resistance in *Candida parapsilosis* healthcare-associated infections has recently been increasingly reported. Antifungal susceptibility profiles and mechanisms of fluconazole resistance in *C. parapsilosis* (n=199) from nine hospitals in India collected over a period of 3 years were studied. Further, clonal transmission of fluconazole-resistant isolates in different hospitals was investigated.

Methods: Antifungal susceptibility testing of five azoles, amphotericin B and 5-flucytosine was performed by the CLSI microbroth dilution method. The azole target ERG11 gene was sequenced, and the significance of a novel ERG11 mutation in *C. parapsilosis* was determined using a gap-repair cloning approach in *Saccharomyces cerevisiae*. In addition, microsatellite analysis was performed to determine the clonal lineage of *C. parapsilosis*-resistant strains circulating among different hospitals.

Results: A total of 64 (32%) *C. parapsilosis* isolates were non-susceptible to fluconazole, which included resistant (n=55; MIC >4mg/L) and susceptible dose-dependent (n=9) isolates. Of these 64 non-susceptible isolates, a novel K143R amino acid substitution was noted in 92%, and the remaining five isolates had the Y132F substitution. Elevated azole MICs (≥ 16 -fold) were detected in *S. cerevisiae* upon expression of *C. parapsilosis* ERG11 alleles carrying Y132F or K143R substitutions. Two major clusters of non-susceptible isolates were circulating in seven Indian hospitals.

Conclusions: We report a novel K143R amino acid substitution in ERG11p causing fluconazole resistance in *C. parapsilosis*. Fluconazole-non-susceptible *C. parapsilosis* isolates carrying the novel K143R amino acid substitution should be identified in clinical microbiology laboratories to prevent further clonal transmission.

DOI: 10.1093/jac/dkz029

PMID: 30753525

144: Singh G, Singh SK, Nalwa A, Singh L, Pradeep I, Barwad A, Sinha A, Hari P, Bagga A, Bagchi S, Agarwal SK, Dinda AK. Glomerular C4d Staining Does Not Exclude a C3 Glomerulopathy. *Kidney Int Rep.* 2019 Feb 13;4(5):698-709. doi: 10.1016/j.ekir.2019.02.006. eCollection 2019 May. PubMed PMID: 31080925; PubMed Central PMCID: PMC6506704.

Introduction: C4d, an early product in the classical/lectin complement pathway has shown potential in the evaluation of C3 glomerulopathy where its absence would support an alternative pathway abnormality. As autoimmune/genetic complement testing is not readily available to most parts of the world, glomerular C4d staining may serve as a useful additional step toward the diagnosis.

Methods: To test this hypothesis, C4d staining was performed on a large cohort of C3 glomerulopathy. Archival cases from 2011 to 2017 were reviewed and immunohistochemistry for C4d was performed, scored (scale of 0 to 3+), and correlated with the immunofluorescence and ultrastructural findings. Paraffin immunofluorescence was performed in cases of "discordant C4d" to unmask Igs.

Results: Twenty-seven cases of dense deposit disease (DDD) and 14 cases of C3 glomerulonephritis (C3GN) were retrieved. C4d demonstrated a range of staining intensities with negative/traces in only 22% of DDD and 64% of C3GN.

Lower-intensity C4d staining (1 to 2+) was mostly concordant with similar amounts

of Igs/C1q. Discordant 3+ staining was noted in approximately 50% of cases of DDD and 20% of cases of C3GN. Among them, paraffin immunofluorescence unmasked polyclonal Igs in 2 of 5 cases of DDD and 1 of 3 cases of C3GN.

Conclusion: This observational study suggests that the presence of glomerular C4d should not exclude a C3 glomerulopathy. In lower intensities, it appears to represent overlying classical/lectin pathway activation with concordant Ig/C1q deposits. A subset of cases, however, displays intense and discordant C4d staining, which raises the possibility of an associated lectin pathway abnormality, a potential future area of study.

DOI: 10.1016/j.ekir.2019.02.006

PMCID: PMC6506704

PMID: 31080925

145: Singh N, Ahuja V, Sachdev V, Upadhyay AD, Goswami R, Ramakrishnan L, Dwivedi S, Saraya A. Antioxidants for Pancreatic Functions in Chronic Pancreatitis: A Double-blind Randomized Placebo-controlled Pilot Study. *J Clin Gastroenterol*. 2019 Feb 15. doi: 10.1097/MCG.0000000000001178. [Epub ahead of print] PubMed PMID: 30789855.

BACKGROUND: Antioxidants (AO) supplementation in chronic pancreatitis (CP) has been evaluated for pain. But it is not clear whether AO in CP have an effect on pancreatic functions and other clinical outcomes. We evaluated effect of AO on endocrine function in CP.

MATERIALS AND METHODS: Double-blind placebo (PL)-controlled randomized pilot study on 107 patients with CP assigned to receive daily combined AO or PL for 6 months. Primary outcome was: improvement in endocrine function (Homeostasis Model Assessment-Insulin Resistance). Secondary outcome measures were: improvement in C-peptide, Qualitative Insulin Sensitivity Check Index, exocrine pancreatic function (fecal elastase), surrogate markers of fibrosis (platelet-derived growth factor BB, transforming growth factor- β 1, α -smooth muscle actin), quality of life (QOL), pain, nutritional status, markers of oxidative stress (OS), AO status, and inflammation.

RESULTS: There was an increase in levels of serum selenium (107.2 \pm 26.9 to 109.7 \pm 26.9 vs. 104.1 \pm 28.6 to 124.0 \pm 33.6 μ g/L, P=0.022) and serum vitamin E [0.58 (range, 0.27-3.22) to 0.66 (range, 0.34-1.98) vs. 0.63 (range, 0.28-1.73) to 1.09 (range, 0.25-2.91)mg/dL, P=0.001] in the AO than the PL group. However, no significant differences were observed between groups in any of the primary or secondary outcome measures.

CONCLUSIONS: Supplementation with AO to patients with CP causes a sustained increase in blood levels of AO; however, it has no addition benefit over PL on endocrine and exocrine functions, markers of fibrosis, OS and inflammation, nutritional status, pain and QOL. Further larger studies with adequate sample size are required.

DOI: 10.1097/MCG.0000000000001178

PMID: 30789855

146: Singh P, Pujari A, Kashyap S. Apocrine Hydrocystoma-Lantern of the Eye. *JAMA Ophthalmol*. 2019 Feb 1;137(2):e183975. doi: 10.1001/jamaophthalmol.2018.3975. Epub 2019 Feb 14. PubMed PMID: 30763419.

147: Singh R, Baby B, Suri A. A Virtual Repository of Neurosurgical Instrumentation for Neuroengineering Research and Collaboration. *World Neurosurg*. 2019 Feb 8. pii: S1878-8750(19)30303-1. doi: 10.1016/j.wneu.2019.01.192. [Epub ahead of print] PubMed PMID: 30743031.

BACKGROUND: Advancements in microscopy and more recently in neuroendoscopy have revolutionized the field of neurosurgery. Handheld neurosurgical instruments are integral components of these procedures. However, these instruments have many limitations, such as poor ergonomics, constrained maneuverability, and limited degrees of freedom. A need for developing better instruments is commonly felt by

neurosurgeons. Also, the focus of modern neurosurgical training is shifting toward simulation models. The baseline data of surgical instruments play a vital role in the development of virtual and physical simulators. A primary factor impeding development of novel instruments and simulators is lack of a comprehensive surgical instrument database. The aim of this study was to develop and validate a virtual repository of microscopic and neuroendoscopic instruments. METHODS: Standard neurosurgical instrument sets were scanned, reverse engineered, and stored in various file formats at the file transfer protocol server. The developed database was validated by 4 groups of experts by creating different neurosurgery applications.

RESULTS: Four groups of experts used the repository content to create novel ergonomic instrument designs, e-learning material, computer vision-based surgical skills evaluation and virtual reality and validated the contents. The validation results showed that quality of content (75%), usefulness of content (85.6%), and time saving using content (88.1%) received high scores, and the effectiveness of the virtual repository contents was appreciated.

CONCLUSIONS: The virtual database is an efficient starting aid to foster research collaborations related to neurosurgical instruments and surgical simulation platforms.

Copyright © 2019. Published by Elsevier Inc.

DOI: 10.1016/j.wneu.2019.01.192

PMID: 30743031

148: Singh S, Verma Y, Pandey P, Singh UB. Granulomatous hepatitis by *Nocardia* species: An unusual case. *Int J Infect Dis*. 2019 Apr;81:97-99. doi: 10.1016/j.ijid.2019.01.046. Epub 2019 Feb 4. PubMed PMID: 30731130.

A case of granulomatous hepatitis due to *Nocardia* is reported here. The case patient was a 63-year-old immunocompetent man who presented with persistent fever, weight loss, and malaise. Radiology suggested an enlarged liver with dense diffuse to multiple tiny micronodular areas of parenchymal involvement, possibly granulomatous. Liver biopsy showed necrotizing granulomas and anti-tuberculosis therapy was initiated, but the patient showed no improvement. A repeat liver biopsy showed similar histopathology; however PCR for *Mycobacterium tuberculosis* was negative, while MGIT 960 culture grew filamentous Gram-positive bacilli, acid-fast by 1% H₂SO₄, identified biochemically as *Nocardia* spp. 16S rRNA sequencing confirmed *Nocardia* spp. A diagnosis of granulomatous hepatitis due to *Nocardia* spp. was made. Treatment based on drug sensitivity testing was initiated, resulting in a resolution of symptoms. The patient's history revealed that stray dogs adopted by his family had skin lesions, likely canine distemper (two newborn puppies had died recently). *Nocardia* is known to co-infect animals with distemper. This could have been the possible source of a zoonotic infection to the case patient. *Nocardia* spp. are seldom reported from sites other than the lungs, skin, or brain; the current case highlights the involvement of the liver. Due to the granulomatous tissue response, it could represent a differential diagnosis of tuberculosis in such cases.

Copyright © 2019. Published by Elsevier Ltd.

DOI: 10.1016/j.ijid.2019.01.046

PMID: 30731130

149: Singh Y, Mirdha BR, Guleria R, Kabra SK, Mohan A, Chaudhry R, Kumar L, Dwivedi SN, Agarwal SK. Genetic polymorphisms associated with treatment failure and mortality in pediatric Pneumocystosis. *Sci Rep*. 2019 Feb 4;9(1):1192. doi: 10.1038/s41598-018-38052-x. PubMed PMID: 30718779; PubMed Central PMCID: PMC6361943.

Data on the genetic diversity of *Pneumocystis jirovecii* causing *Pneumocystis* pneumonia (PCP) among children are still limited, and there are no available data

from the Indian subcontinent, particularly associations between genotypes and clinical characteristics. A total of 37 children (62 days-12 years [median 5.5 years]) were included in this study. Pneumocystis was diagnosed by microscopy using Grocott-Gomori methenamine silver stain in 12 cases and by nested PCR using mtLSUrRNA in 25 cases. Genotyping was performed using three different genes, mitochondrial large subunit ribosomal RNA (mtLSUrRNA), dihydropteroate synthase (DHPS) and dihydrofolate reductase (DHFR). mtLSUrRNA genotype 3 and novel mutations at the gene target DHFR (401T>C) and DHPS 96/98 were frequently observed and clinically associated with severe PCP and treatment failure. Phylogenetic analyses revealed 13 unique sequence types (STs). Two STs (i) 3-DHFR 401T>C-DHPS 96/98 - PJ1 and (ii) 3-DHFR 401T>C-DHPS 96- PJ3 were significantly associated with treatment failure and high mortality among PCP-positive patients. In conclusion, the present study strongly suggests the emergence of virulent *P. jirovecii* strains or genetic polymorphisms, leading to treatment failure and high mortality. Our study is the first of its kind from the Indian subcontinent and has highlighted the genetic diversity of *Pneumocystis jirovecii* among children and their clinical outcomes. These findings emphasize the need to focus more on genotypes to better understand the epidemiology of *Pneumocystis pneumonia*.

DOI: 10.1038/s41598-018-38052-x

PMCID: PMC6361943

PMID: 30718779

150: Sinha A, Singh V, Singh S, Yadav S. Proteomic analyses reveal lower expression of TEX40 and ATP6V0A2 proteins related to calcium ion entry and acrosomal acidification in asthenozoospermic males. *Life Sci.* 2019 Feb 1;218:81-88. doi: 10.1016/j.lfs.2018.12.016. Epub 2018 Dec 11. PubMed PMID: 30550884.

AIMS: Idiopathic nature of male infertility disorder needs to be investigated by different horizons of molecular biology for its treatment and to device male contraceptive. Further, it can also aid in advancement of assisted reproductive technology (ART), as nowadays the failure and disquiets of ART are consistent. Herein, we have attempted to find out proteins responsible for male infertility by comparing proteome profile of sperms collected from normal control and asthenozoospermic (AS) males.

MAIN METHODS: Differential proteome profiles were studied by 2-dimensional differential gel electrophoresis (2D-DIGE) and mass spectrometry. The confirmation of proteome profiling results was done by western blotting and ELISA. Quantitative reverse-transcription-PCR was also performed in an independent cohort of AS and normal individuals to investigate the transcriptional regulation of proteins.

KEY FINDINGS: Although seven differentially regulated proteins were identified, highpoints of the study were two proteins, TEX40 and ATP6V0A2. Lower expression of a crucial sperm motility related protein, TEX40 is reported for the first time in clinically diagnosed AS males in the present investigation. Most likely with reference to previous findings the down regulation of TEX40 leads to fewer entries of calcium ions in the sperm and lower expression of ATP6V0A2 is responsible for acrosomal de-acidification.

SIGNIFICANCE: Conclusively, the down regulation of these two proteins in AS males might result in diminished sperm motility. The findings can be worthwhile for male contraception and ART management besides their use for male infertility therapy.

Copyright © 2018 Elsevier Inc. All rights reserved.

DOI: 10.1016/j.lfs.2018.12.016

PMID: 30550884 [Indexed for MEDLINE]

151: Sinha S, Seth T, Colah RB, Bittles AH. Haemoglobinopathies in India: estimates of blood requirements and treatment costs for the decade 2017-2026. *J*

Community Genet. 2019 Feb 12. doi: 10.1007/s12687-019-00410-1. [Epub ahead of print] PubMed PMID: 30756298.

The Government of India is presently engaged in the implementation of a prevention and control programme for two major forms of haemoglobinopathies, thalassaemia major and sickle cell disease, with guidelines for their prevention and management formulated under the National Health Mission. Based on projections for the population up to the year 2026, the annual blood requirement for treatment will increase to 9.24 million units, together with an 86% increase in budgetary requirements which then would account for over 19% of the current National Health Budget. To avert a public health crisis there is an urgent need to fully implement the prevention programme for haemoglobinopathies.

DOI: 10.1007/s12687-019-00410-1
PMID: 30756298

152: Sinukumar S, Mehta S, Damodaran D, Rajan F, Zaveri S, Ray M, Katdare N, Sethna K, Patel MD, Kammer P, Peedicayil A, Bhatt A. Failure-to-Rescue Following Cytoreductive Surgery with or Without HIPEC is Determined by the Type of Complication-a Retrospective Study by INDEPSO. Indian J Surg Oncol. 2019 Feb;10(Suppl 1):71-79. doi: 10.1007/s13193-019-00877-x. Epub 2019 Jan 14. PubMed PMID: 30886497; PubMed Central PMCID: PMC6397122.

To determine factors influencing failure-to-rescue in patients with complications following cytoreductive surgery and HIPEC. A retrospective analysis of patients enrolled in the Indian HIPEC registry was performed. Complications were graded according to the CTCAE classification version 4.3. The 30- and 90-day morbidity were both recorded. Three hundred seventy-eight patients undergoing CRS with/without HIPEC for peritoneal metastases from various primary sites, between January 2013 and December 2017 were included. The median PCI was 11 [range 0-39] and a CC-0/1 resection was achieved in 353 (93.5%). Grade 3-4 morbidity was seen 95 (25.1%) at 30 days and 122 (32.5%) at 90 days. The most common complications were pulmonary complications (6.8%), neutropenia (3.7%), systemic sepsis (3.4%), anastomotic leaks (1.5%), and spontaneous bowel perforations (1.3%). Twenty-five (6.6%) patients died within 90 days of surgery due to complications. The failure-to-rescue rate was 20.4%. Pulmonary complications ($p=0.03$), systemic sepsis ($p<0.001$), spontaneous bowel perforations ($p<0.001$) and PCI >20 ($p=0.002$) increased the risk of failure-to-rescue. The independent predictors were spontaneous bowel perforation ($p=0.05$) and systemic sepsis ($p=0.001$) and PCI >20 ($p=0.02$). The primary tumor site did not have an impact on the FTR rate ($p=0.09$) or on the grade 3-4 morbidity ($p=0.08$). Nearly one-fifth of the patients who developed complications succumbed to them. Systemic sepsis, spontaneous bowel perforations, and pulmonary complications increased the risk of FTR and multidisciplinary teams should develop protocols to prevent, identify, and effectively treat such complications. All surgeons pursuing this specialty should perform a regular audit of their results, irrespective of their experience.

DOI: 10.1007/s13193-019-00877-x
PMCID: PMC6397122 [Available on 2020-02-01]
PMID: 30886497

153: Sinukumar S, Mehta S, As R, Damodaran D, Ray M, Zaveri S, Kammar P, Bhatt A. Analysis of Clinical Outcomes of Pseudomyxoma Peritonei from Appendicular Origin Following Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy-A Retrospective Study from INDEPSO. Indian J Surg Oncol. 2019 Feb;10(Suppl 1):65-70. doi: 10.1007/s13193-018-00870-w. Epub 2019 Jan 11. PubMed PMID: 30886496; PubMed Central PMCID: PMC6397130.

To evaluate the clinical outcomes of patients of pseudomyxoma peritonei of appendiceal origin undergoing cytoreductive surgery and HIPEC. Data collected

from members, an independent collaborative group of Indian surgeons specializing in the management of peritoneal surface malignancy (INDEPSO), was analyzed retrospectively. Clinicopathological and perioperative outcomes of patients treated for pseudomyxoma peritonei (PMP) of appendicular origin were evaluated. Ninety-one patients were diagnosed with pseudomyxoma peritonei of appendicular origin between March 2013 and December 2017. The median age was 53 years and 60% were females. The median PCI was 27 [range 3-39] and a CC-0/1 resection was achieved in 83.5% patients. The most common histological grade was low-grade PMP, seen in 71.4% cases. The overall rate of grades 3-4 morbidity was 33% (30/91) and the 90-day mortality rate reported was 6.5%. Pulmonary complications and systemic sepsis emerged as the most significant factors affecting morbidity, mortality, and failure to rescue. At a median follow-up of 24 months, the median OS was not reached and the median PFS was 53 months. On univariate and multivariate analysis, high-grade histology, prior chemotherapy, debulking surgery alone without HIPEC, and high PCI>10 were predictors of poor progression-free survival. The survival and morbidity results of pseudomyxoma peritonei from appendicular origin following cytoreductive surgery and hyperthermic intraperitoneal chemotherapy are encouraging. With further awareness and understanding of the disease, and improvement in surgical expertise and learning curve, there is scope for further reduction in morbidity and better improvement in survival.

DOI: 10.1007/s13193-018-00870-w

PMCID: PMC6397130 [Available on 2020-02-01]

PMID: 30886496

154: Sood A, Mishra A, Ambekar A. Trends in alcohol consumption and expenditure: Analysis of household data from nationally representative sample from India. *Asian J Psychiatr.* 2019 Feb;40:116-123. doi: 10.1016/j.ajp.2019.02.011. Epub 2019 Feb 22. PubMed PMID: 30836269.

BACKGROUND: Alcohol consumption in India has been rising at an increasing rate. A better understanding of current trends of consumption and expenditure is necessary for tackling future challenges.

AIMS: To determine association between household income and amount of alcohol consumed, type of beverage consumed, and expenditure on alcohol in Indian households across different income-groups for rural and urban areas.

METHOD: Secondary analysis of cross-sectional data from the Consumption Expenditure Survey by National Sample Survey Organization for 2011-12 in a nationally representative sample of over 65,000 households. We used estimates of average household Monthly Per Capita Consumer Expenditure (MPCE) including distribution of households and persons over the MPCE range, break-up of average MPCE by commodity group.

RESULTS AND CONCLUSION: Households in India, on average, consumed 0.18 L of all alcoholic beverages per month (0.22 L in rural areas; 0.10 L in urban areas). The absolute quantity of alcohol consumed was higher among higher income-groups in both rural and urban areas. Country liquor was used by a majority across India; was used seven times more than toddy and beer, and 3.5 times more than Indian Made Foreign Liquor. Households' expenditure on alcohol was Rs.16.46 (US\$0.26) per month, which was 0.98% of average total household MPCE. Fraction of average total household MPCE on alcohol in rural areas (1.14%) was almost double that of urban areas (0.62%). It increased steadily from lowest (0.5%) to highest (1.7%) income group in rural areas whereas in urban areas, it varied a little (0.5-0.8%) across income groups.

Copyright © 2019 Elsevier B.V. All rights reserved.

DOI: 10.1016/j.ajp.2019.02.011

PMID: 30836269

155: Srivastava R, Kant S, Singh AK, Saxena R, Yadav K, Pandav CS. Effect of iron and folic acid tablet versus capsule formulation on treatment compliance and iron

status among pregnant women: A randomized controlled trial. *J Family Med Prim Care*. 2019 Feb;8(2):378-384. doi: 10.4103/jfmpc.jfmpc_339_18. PubMed PMID: 30984642; PubMed Central PMCID: PMC6436276.

Background: Iron supplementation during pregnancy in programmatic settings has failed to produce desired results. Formulation of iron supplementation may have a role in compliance and hematological parameters.

Objective: We did this study to compare the compliance to iron supplementation, change in mean hemoglobin and serum ferritin level after iron supplementation in capsule form and tablet form during pregnancy.

Materials and Methods: In this single-blinded (investigator blinded), active comparator, randomized controlled trial we enrolled pregnant women (aged ≥ 18 years) from May to November 2014 during second trimester to receive iron supplementation either as capsule (ferrous fumarate) or tablet (ferrous sulphate) during entire pregnancy. The outcome was compliance (good compliance $\geq 90\%$) to iron supplementation assessed by pill count and change in mean hemoglobin and serum ferritin. Statistical significance was tested using Chi-square test and Student's t test.

Results: We enrolled and randomized 204 pregnant women for iron supplementation; capsule form (n = 100) and tablet form (n = 104). Out of which 52 (25.5%) women (23 in capsule arm and 29 in tablet arm) were lost to follow up. As compared to tablet arm, the capsule arm had higher good compliance (22% vs 16.8%), increase in mean hemoglobin (0.79 vs 0.44 gm/dL) and increase in mean serum ferritin (2.50 vs -2.14 ng/mL), but the difference was not statistically significant.

Conclusion: Pregnant women who received either of the formulation reported a low compliance. Iron supplementation in capsule formulation resulted in more increase in blood hemoglobin level, though clinically insignificant.

DOI: 10.4103/jfmpc.jfmpc_339_18

PMCID: PMC6436276

PMID: 30984642

156: Subhadarshani S, Parambath N, Gupta S. Use of a lumbar puncture needle to reduce the number of needle insertions in infiltration local anaesthesia of large areas in dermatologic surgery. *Australas J Dermatol*. 2019 Feb;60(1):72-73. doi: 10.1111/ajd.12935. Epub 2018 Sep 23. PubMed PMID: 30246239.

157: Takkar B, Mukherjee S, Chauhan RC, Venkatesh P. Development of a semi-quantitative tear film based method for public screening of diabetes mellitus. *Med Hypotheses*. 2019 Apr;125:106-108. doi: 10.1016/j.mehy.2019.02.043. Epub 2019 Feb 19. PubMed PMID: 30902135.

Diabetes mellitus (DM) is a major health care burden associated with significant morbidity and serious impact on the quality of life. Estimating blood glucose levels is the currently employed method for screening for DM. Due to the invasive nature of access to blood glucose; new methods are being suggested that depend upon different targets than blood or another biochemical pathway altogether. But these are not cost effective and have inherent limitations related to public screening. We hypothesize a simple, non invasive and cheap paper strip method to estimate tear film glucose levels for screening purposes at community level. We also discuss the ideal properties of such a paper strip and the process of validation the technique should undergo before being employed for mass usage.

Copyright © 2019 Elsevier Ltd. All rights reserved.

DOI: 10.1016/j.mehy.2019.02.043

PMID: 30902135

158: Temiz MZ, Nayak B, Aykan S, Singh P, Colakerol A, Semercioz A, Muslumanoglu AY. Laparoscopic and robotic transperitoneal repair of retrocaval ureter: A comparison of the surgical outcomes from two centres with a comprehensive literature review. *J Minim Access Surg*. 2019 Feb 18. doi:

10.4103/jmas.JMAS_293_18. [Epub ahead of print] PubMed PMID: 30777994.

Background: The use of minimally invasive surgical approaches for the repair of retrocaval ureter (RCU) has been increased in time. However, the results of the robotic approach have not yet been compared with those of open or laparoscopic approaches. We aimed to compare the results of laparoscopic and robotic transperitoneal repair of RCU from two centres.

Patients and Methods: Initially, we performed a systemic literature search using MEDLINE/PubMed and Google Scholar about the RCU. Finally, a comparison of the efficacy and outcomes of the laparoscopic and robotic transperitoneal approaches for RCU repair was performed with the results of two centers.

Results: The mean age was 27.5 ± 3.6 years. The mean operative time was 147 ± 63.6 min. The median estimated blood loss was 100 (20-423.9) ml. The median drain removing time and hospital stay were 2 (2-3) and 3 (2-4) days, respectively. The mean follow-up period was 17.85 ± 14.6 months. All of the parameters were similar between the laparoscopic and robotic repair groups except for the mean operative time. It was significantly shorter in robotic repair group than those of laparoscopic repair group ($P = 0.02$). Furthermore, a ureteral stricture of the anastomotic segment was detected in a patient treated with laparoscopy during the follow-up.

Conclusions: Robotic transperitoneal approach may shorten the operative time enabling a greater comfort in repair of RCU.

DOI: 10.4103/jmas.JMAS_293_18

PMID: 30777994

159: Thelengana A, Shukla G, Srivastava A, Singh MB, Gupta A, Rajan R, Vibha D, Pandit AK, Prasad K. Cognitive, behavioural and sleep-related adverse effects on introduction of levetiracetam versus oxcarbazepine for epilepsy. *Epilepsy Res.* 2019 Feb;150:58-65. doi: 10.1016/j.epilepsyres.2019.01.004. Epub 2019 Jan 8. PubMed PMID: 30641352.

OBJECTIVE: There is limited literature on cognitive, behaviour and sleep-related adverse effects of levetiracetam and oxcarbazepine among adult epilepsy patients, except for what is available from the initial efficacy trials. This study was initiated with the aim to evaluate the incidence and prevalence of various cognitive, behaviour and sleep-related adverse effects of levetiracetam versus oxcarbazepine among people with epilepsy.

METHODS: The study was conducted in two parts: part A was a cross-sectional study, and part B was a longitudinal study. Trail making test A & B, digit symbol substitution test, Stroop colour and word test, controlled oral word association test and PGI memory scale, Neuropsychiatric Inventory, sleep log and ESS-I were used for assessment of cognitive, behaviour and sleep-related adverse effects.

RESULTS: In the cross-sectional as well as prospective study, no significant difference was observed in the cognitive performance of patients in levetiracetam and oxcarbazepine group in any of the cognitive assessment. Among 120 patients enrolled in the cross-sectional study, significantly higher number of patients in the levetiracetam group compared to the oxcarbazepine group, had agitation/aggression (20% vs 10%, $p = 0.047$) and irritability (26.7% vs 3.3%, $p = 0.007$). Among 132 patients enrolled in the prospective study, significantly higher increase in the domain score of agitation/aggression (14.5% vs 1.6%, $p = 0.028$) and irritability (17.7% vs 1.6%, $p = 0.018$) was observed in the levetiracetam group compared to oxcarbazepine group. A significantly higher proportion of patients in the oxcarbazepine group had hypersomnolence (11.3% vs 1.6%, $p = 0.026$), as compared to the levetiracetam group.

SIGNIFICANCE: On cross-sectional as well as on longitudinal assessment, nearly one-fifth of patients on levetiracetam have behaviour related adverse effects, with dose modification required for half among these. Nearly 11% of patients on oxcarbazepine reported sleep-related adverse effects (higher total sleep duration per 24h).

DOI: 10.1016/j.eplepsyres.2019.01.004
PMID: 30641352 [Indexed for MEDLINE]

160: Titiyal JS, Kaur M, Shaikh F, Bari A. 'Acute-angled bevel' sign to assess donor lenticule orientation in ultra-thin descemet stripping automated endothelial keratoplasty. *BMJ Case Rep.* 2019 Feb 21;12(2). pii: e227927. doi: 10.1136/bcr-2018-227927. Review. PubMed PMID: 30796081.

A 6.5-year-old boy with congenital hereditary endothelial dystrophy underwent clear corneal ultra-thin descemet stripping automated endothelial keratoplasty (DSAEK). After graft insertion, it was difficult to assess graft orientation due to hazy cornea. Intraoperative optical coherence tomography (iOCT) showed a well-attached graft and the bevelled edge of donor lenticule made an acute angle with the overlying stroma. Postoperative anterior segment OCT confirmed the presence of acute-angled bevel sign. A wetlab experiment was performed with experimental corneoscleral tissues to confirm the findings. Donor lenticule was injected in the artificial chamber with stromal-side up as well as stromal side-down. 'Acute-angled bevel sign' was observed on iOCT in the experimental cases with stromal-side up. In inverse graft, the acute-angled bevel was not observed, instead the configuration was obtuse angled. Identifying the 'acute-angled bevel sign' on iOCT confirms correct graft orientation after unfolding and is extremely useful for hazy corneas and ultrathin DSAEK lenticules.

© BMJ Publishing Group Limited 2019. No commercial re-use. See rights and permissions. Published by BMJ.

DOI: 10.1136/bcr-2018-227927
PMID: 30796081 [Indexed for MEDLINE]

161: Tripathi P, Pati HP, Mahapatra M, Tyagi S, Ahuja A, Saxena R. Utility of Labile Plasma Iron Assay in Thalassemia Major Patients. *Indian J Hematol Blood Transfus.* 2019 Apr;35(2):272-277. doi: 10.1007/s12288-019-01104-x. Epub 2019 Feb 27. PubMed PMID: 30988563; PubMed Central PMCID: PMC6439112.

Labile plasma iron (LPI) levels are proposed as marker of iron overload in thalassemia patients and are also known to be the earliest parameter to indicate efficacy of chelation therapy. It was a prospective study in 35 patients of thalassemia major. Patients were recruited in two groups-group A (n=13) patients not on chelation therapy and group B (n=22) patients who were on regular oral chelation therapy. Ten age and gender matched healthy controls were also studied. For all patients, ferritin levels and LPI levels were measured at baseline, 6 months and 12 months. For group B patients paired samples for LPI were taken (before and 2 h after chelator). LPI levels were found to be significantly higher in group B patients versus group A patients versus normal healthy controls at all time-points. (P value-<0.0001, 0.001) In group A, both LPI levels and ferritin levels follow an upward trend and correlated well with each other (P value-<0.0001). In group B, the serum ferritin trend was not significant over follow up period of 1 year (P value 0.16), however LPI levels showed a significant decreasing trend on continued chelation (P value 0.0347) In patients on chelation therapy, the immediate change (2 h) in LPI levels on administration of chelators was not found to be significant (P value 0.22). LPI assay appears potentially attractive alternate to serum ferritin and can serve to monitor the trend of iron overload during long-term follow up.

DOI: 10.1007/s12288-019-01104-x
PMCID: PMC6439112 [Available on 2020-04-01]
PMID: 30988563

162: Tripathy K, Bypareddy R, Chawla R. Congenital retinal macrovessel may be associated with unilateral foveal hypoplasia/small foveal avascular zone. *Can J*

Ophthalmol. 2019 Feb;54(1):139. doi: 10.1016/j.jcjo.2018.06.018. Epub 2018 Aug 25. PubMed PMID: 30851769.

163: Tyagi A, Pramanik R, Vishnubhatla S, Bakhshi R, Bakhshi S. Prognostic impact of mitochondrial DNA D-loop variations in pediatric acute myeloid leukemia. *Oncotarget*. 2019 Feb 12;10(13):1334-1343. doi: 10.18632/oncotarget.26665. eCollection 2019 Feb 12. PubMed PMID: 30863493; PubMed Central PMCID: PMC6407682.

The role of mitochondrial DNA (mt-DNA) changes, especially those in the regulatory D-loop region in Acute Myeloid Leukemia (AML) remains investigational. Consecutive 151 de novo pediatric AML patients, (≤ 18 yr) were prospectively enrolled from June 2013–August 2016, to assess the prognostic impact of mt-DNA D-loop variations (somatic/germline) on survival. For each patient, D-loop region was sequenced on baseline bone marrow and buccal swab, and mother's blood sample. In 151 AML subjects, 1490 variations were found at 237 positions; 80.9% were germline and 19.1% somatic. The mean number of variations per position was 6.3. Variations with frequency ≥ 6 were analyzed for their impact on survival and 4 categories were created, namely "somatic-protective", "somatic-hazardous", "germline-protective" and "germline-hazardous". Although, somatic-protective could not predict event free survival (EFS) or overall survival (OS), somatic-hazardous [(OS) HR = 2.33, $p = 0.06$] and germline-hazardous [(OS) HR = 2.85, $p < 0.01$] significantly predicted OS and EFS. Notably, the germline-protective, could significantly predict EFS (HR = 0.31, $p = 0.03$) and OS (HR = 0.19, $p < 0.01$), only when variations at ≥ 2 positions were present. On multivariate analysis, three positions namely 16111, 16126, 16362 and karyotype were found to be predictive of EFS. A prognostic index (PI) was developed using nomogram $PI = (0.8 * karyotype) + (1.0 * t16111) + (0.7 * t16362) + (1.2 * t16126)$. Hazard ratio for EFS increased significantly with increasing PI reaching to a maximum of 3.3 ($p < 0.01$). In conclusion, the impact of mt-DNA D-loop variations on outcomes in pediatric AML depends on their nature (germline/somatic), position and mutational burden, highlighting their potential role as evolving prognostic biomarkers.

DOI: 10.18632/oncotarget.26665
PMCID: PMC6407682
PMID: 30863493

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

INTRODUCTION: Dysregulation of apoptosis has been explored in acute myeloid leukemia (AML); yet, its correlation with clinical outcomes in pediatric AML is unknown. This study was aimed to analyze percentage of apoptosis and apoptosis mediated through the intrinsic pathway with clinical outcomes in patients with pediatric AML.

METHODS: This prospective study included pediatric AML patients enrolled from July 2013 to August 2016. Annexin-V (marker of total apoptosis) and caspase-9 expression (marker of intrinsic pathway) was determined in baseline bone marrow (BM) samples by flow cytometry and compared with controls (unaffected BM of solid tumors and peripheral blood [PB] of unaffected siblings). Overall survival (OS) and event-free survival (EFS) were compared using log-rank test.

RESULTS: A total of 151 AML patients were enrolled, median age 10 (range: 0.7–18 years). Annexin-V expression in blast cells was significantly high in AML patients as compared to BM of subjects with solid tumors ($P = 0.01$) and PB of healthy subjects ($P = 0.04$). Caspase-9 expression in blast cells was not significantly different. Median annexin-V expression was significantly higher in patients with WBC count $\geq 11,000/\text{mm}^3$ ($P = 0.02$), poor-risk cytogenetics ($P = 0.02$), the absence of RUNX1-RUNX1T1 translocation ($P = 0.004$), and the absence of NPM1 mutation ($P = 0.05$). Patients with high annexin-V expression had

significantly inferior OS ($P = 0.05$) in univariate analysis but not in multivariate analysis ($P = 0.32$).

CONCLUSION: Apoptosis as a whole was found to be activated in baseline BM samples of AML patients. High apoptosis may be associated with high-risk phenotype in this disease.

© 2018 John Wiley & Sons Ltd.

DOI: 10.1111/ijlh.12939

PMID: 30383325 [Indexed for MEDLINE]

165: Vallonthaiel AG, Yadav R, Jain D, Mathur SR, Iyer VK. Mucinous adenocarcinoma of gallbladder: Subcategorisation on fine-needle aspiration cytology. *Diagn Cytopathol.* 2019 Feb;47(2):110-113. doi: 10.1002/dc.24102. Epub 2018 Oct 30. PubMed PMID: 30375181.

BACKGROUND: Mucinous adenocarcinoma (MC) of gallbladder is a rare histological subtype of gallbladder carcinoma (CaGB) which presents at an advanced stage and is associated with a poor prognosis compared to the conventional CaGB. This variant has been described mostly as reports or series, except for a single detailed histological and immunohistochemical analysis. Till date, there are no studies describing the cytomorphology of MC in detail. Hence, we undertook this study to analyse the cytomorphological features of MC.

METHODS: A retrospective cytomorphological analysis was performed on MC identified out of all CaGB diagnosed on cytology over a period of last 4 years.

The architectural and cellular features were recorded in a structured proforma.

RESULTS: Thirty-three cases (33/987, 3.3%) were identified as MC. Extracellular mucin >90% was seen only in 3 cases whereas the remaining 30 had 50%-90% mucin.

The predominant architectural pattern was tight epithelial fragments (14/33). The tumour cells were mostly of intermediate size (31/33) and had moderate amount of cytoplasm (31/33). Majority of the cases showed moderate nuclear pleomorphism (28/33) and nuclear chromatin was fine granular (17/33) or vesicular (14/33). Most of the cases had single and small nucleoli (26/33). Presence of inflammation composed predominantly of polymorphs was noted in 25 cases. Majority of the cases showed no (15/33) or scant necrosis (13/33).

CONCLUSION: The morphological features of MC can very well be demonstrated on cytology. As they are associated with poor prognosis compared to conventional CaGB, cytopathologists should try to document the subtype.

© 2018 Wiley Periodicals, Inc.

DOI: 10.1002/dc.24102

PMID: 30375181 [Indexed for MEDLINE]

166: Verma VK, Malik S, Narayanan SP, Mutneja E, Sahu AK, Bhatia J, Arya DS. Role of MAPK/NF- κ B pathway in cardioprotective effect of Morin in isoproterenol induced myocardial injury in rats. *Mol Biol Rep.* 2019 Feb;46(1):1139-1148. doi: 10.1007/s11033-018-04575-9. Epub 2019 Jan 21. PubMed PMID: 30666500.

Oxidative stress plays a major role in myocardial injury. Morin, a bioflavonoid has known to possess various biological activities in previous studies. Hence, this study evaluated the cardioprotective mechanism(s) of Morin against isoproterenol induced myocardial necrosis in rats. Male albino Wistar rats were divided into five groups ($n=8$) i.e., I (normal), II (ISO-control), III, IV and V (morin 20, 40 and 80 mg/kg respectively). Groups III, IV and V were treated orally with daily doses of Morin accordingly for 28 days. On 26th and 27th day, a single injection of isoproterenol was injected (85 mg/kg s.c.) at 24 h interval to induce myocardial necrosis in group II, III, IV and V. On 28th day, hemodynamic parameters were evaluated, animals were euthanised and heart was excised for measurement of various parameters. In ISO-control rats, there was deterioration of hemodynamic parameters, decreased anti-oxidants levels, increased cardiac injury markers and pro-inflammatory cytokines (TNF- α and IL-6).

Also, there was increased level of Bax, Caspase-3, p-JNK, p-38 and NF- κ B and decreased expression of Bcl-2 and p-ERK1/2 in ISO-C group. Morin dose-dependently improved hemodynamic profile, increased anti-oxidant levels, normalized myocardial architecture and reduced inflammatory markers and apoptosis. Furthermore, immunoblot analysis of MAPK pathway proteins demonstrated the mechanism responsible for anti-apoptotic and anti-inflammatory potential of morin. Thus, this study substantiated the beneficial effect of Morin by virtue of its modulation of MAPK pathway in myocardial injury.

DOI: 10.1007/s11033-018-04575-9

PMID: 30666500

167: Vijayakumar S, Mathur P, Kapil A, Das BK, Ray P, Gautam V, Sistla S, Parija SC, Walia K, Ohri VC, Anandan S, Subramani K, Ramya I, Veeraraghavan B. Molecular characterization & epidemiology of carbapenem-resistant *Acinetobacter baumannii* collected across India. *Indian J Med Res.* 2019 Feb;149(2):240-246. doi: 10.4103/ijmr.IJMR_2085_17. PubMed PMID: 31219089; PubMed Central PMCID: PMC6563728.

Background & objectives: *Acinetobacter baumannii* is an opportunistic pathogen responsible for causing nosocomial infections. *A. baumannii* develops resistance to various antimicrobial agents including carbapenems, thereby complicating the treatment. This study was performed to characterize the isolates for the presence of various β -lactamases encoding genes and to type the isolates to compare our clones with the existing international clones across five centres in India.

Methods: A total 75 non-repetitive clinical isolates of *A. baumannii* from five different centres were included in this study. All the isolates were confirmed as *A. baumannii* by *bla* aOXA-51-like PCR. Multiplex PCR was performed to identify the presence of extended spectrum β -lactamases (ESBL) and carbapenemases. Multilocus sequence typing was performed to find the sequence type (ST) of the isolates. e-BURST analysis was done to assign each ST into respective clonal complex.

Results: *bla* OXA-51-like was present in all the 75 isolates. The predominant Class D carbapenemase was *bla* OXA-23-like followed by Class B carbapenemase, *bla* NDM-like. Class A carbapenemase was not observed. *bla* PER-like was the predominant extended spectrum β -lactamase. ST-848, ST-451 and ST-195 were the most common STs.

Eight novel STs were identified. e-BURST analysis showed that the 75 *A. baumannii* isolates were clustered into seven clonal complexes and four singletons, of which, clonal complex 208 was the largest.

Interpretation & conclusions: Most of the isolates were grouped under clonal complex 208 which belongs to the international clonal lineage 2. High occurrence of ST-848 carrying *bla* OXA-23-like gene suggested that ST-848 could be an emerging lineage spreading carbapenem resistance in India.

DOI: 10.4103/ijmr.IJMR_2085_17

PMCID: PMC6563728

PMID: 31219089

168: Vincent V, Thakkar H, Aggarwal S, Mridha AR, Ramakrishnan L, Singh A. ATP-binding cassette transporter A1 (ABCA1) expression in adipose tissue and its modulation with insulin resistance in obesity. *Diabetes Metab Syndr Obes.* 2019 Feb 25;12:275-284. doi: 10.2147/DMSO.S186565. eCollection 2019. PubMed PMID: 30881070; PubMed Central PMCID: PMC6395069.

Purpose: Adipose tissue dysfunction is at the center of metabolic dysfunctions associated with obesity. Through studies in isolated adipocytes and mouse models, ATP-binding cassette transporter A1 (ABCA1) expression in the adipose tissue has been shown to regulate high-density lipoprotein (HDL) cholesterol levels in the circulation and insulin sensitivity at both adipose tissue and whole-body levels. We aimed to explore the possible link between ABCA1 expression in the adipose tissue and metabolic derangements associated with obesity in humans.

Patients and methods: This exploratory study among individuals who were lean (body mass index [BMI]: 22.3 \pm 0.34 kg/m², n=28) and obese (BMI: 44.48 \pm 5.3 kg/m²,

n=34) compared the expression of ABCA1, adiponectin and GLUT4 (SLC2A4) in visceral and subcutaneous adipose tissue using quantitative real-time PCR and immunohistochemistry. Homeostatic model assessment for insulin resistance (HOMA-IR) and adipose tissue insulin resistance (adipo-IR) were used as insulin resistance markers.

Results: Visceral adipose tissue from individuals who were obese had significantly lower ABCA1 (P=0.04 for mRNA and protein) and adiponectin (P=0.001 for mRNA) expression compared to that from lean individuals. Subcutaneous adipose tissue did not show any significant difference in the expression. When individuals were divided into insulin-sensitive (IS) and insulin-resistant (IR) groups based on HOMA-IR, IR individuals had lower ABCA1 (P=0.0001 for mRNA and P=0.009 for protein) expression compared to IS individuals in visceral adipose tissue, but not in subcutaneous adipose tissue. The difference was significant after adjusting for age, gender and BMI. ABCA1 mRNA expression in visceral adipose tissue correlated negatively with both HOMA-IR (r=-0.44, P=0.0003) and adipo-IR (r=-0.35, P=0.005) after adjusting for age, gender and BMI. ABCA1 expression in either visceral or subcutaneous adipose tissue did not have any significant correlation with HDL cholesterol levels or mean adipocyte area. Conclusion: Obesity and insulin resistance are associated with lower expression of ABCA1 in visceral adipose tissue in humans.

DOI: 10.2147/DMSO.S186565

PMCID: PMC6395069

PMID: 30881070

169: Walia K, Madhumathi J, Veeraraghavan B, Chakrabarti A, Kapil A, Ray P, Singh H, Sistla S, Ohri VC. Establishing Antimicrobial Resistance Surveillance & Research Network in India: Journey so far. *Indian J Med Res.* 2019 Feb;149(2):164-179. doi: 10.4103/ijmr.IJMR_226_18. PubMed PMID: 31219080; PubMed Central PMCID: PMC6563732.

The Indian Council of Medical Research, in 2013, initiated the Antimicrobial Resistance Surveillance & Research Network (AMRSN) to enable compilation of data on six pathogenic groups on antimicrobial resistance from the country. The overarching aim of this network was to understand the extent and pattern of antimicrobial resistance (AMR) and use this evidence to guide strategies to control the spread of AMR. This article describes the conception and implementation of this AMR surveillance network for India. Also described are the challenges, limitations and benefits of this approach. Data from the Network have shown increasing resistance in Gram-negative bacteria in the hospitals that are part of this network. Combined resistance to third-generation cephalosporins and fluoroquinolones and increasing carbapenem resistance are worrisome, as it has an important bearing on the patients' outcome and thus needs to be addressed urgently. Data generated through this Network have been used to develop treatment guidelines, which will be supportive in harmonizing treatment practices across the tertiary level healthcare institutions in the country. While, the major benefit of having a surveillance system is the collection of real-time accurate data on AMR including the mechanisms of resistance, representativeness to community, sustaining the current effort and expanding the current activities to next levels of healthcare settings are the major challenges. The data emanating from the network besides providing evidence, expose several gaps and lacunae in the ecosystem and highlight opportunities for action by multiple stakeholders.

DOI: 10.4103/ijmr.IJMR_226_18

PMCID: PMC6563732

PMID: 31219080

170: Yadav K, Yavvari PS, Pal S, Kumar S, Mishra D, Gupta S, Mitra M, Soni V, Khare N, Sharma P, Srikanth CV, Kapil A, Singh A, Nandicoori VK, Bajaj A. Oral Delivery of Cholic Acid-Derived Amphiphile Helps in Combating Salmonella-Mediated Gut Infection and Inflammation. *Bioconjug Chem.* 2019 Mar 20;30(3):721-732. doi: 10.1021/acs.bioconjchem.8b00880. Epub 2019 Feb 5. PubMed PMID: 30669829.

A major impediment to developing effective antimicrobials against Gram-negative bacteria like Salmonella is the ability of the bacteria to develop resistance against existing antibiotics and the inability of the antimicrobials to clear the intracellular bacteria residing in the gastrointestinal tract. As the critical balance of charge and hydrophobicity is required for effective membrane-targeting antimicrobials without causing any toxicity to mammalian cells, herein we report the synthesis and antibacterial properties of cholic acid-derived amphiphiles conjugated with alkyl chains of varied hydrophobicity. Relative to other hydrophobic counterparts, a compound with hexyl chain (6) acted as an effective antimicrobial against different Gram-negative bacteria. Apart from its ability to permeate the outer and inner membranes of bacteria; compound 6 can cross the cellular and lysosomal barriers of epithelial cells and macrophages and kill the facultative intracellular bacteria without disrupting the mammalian cell membranes. Oral delivery of compound 6 was able to clear the Salmonella-mediated gut infection and inflammation, and was able to combat persistent, stationary, and multi-drug-resistant clinical strains. Therefore, our study reveals the ability of cholic acid-derived amphiphiles to clear intracellular bacteria and Salmonella-mediated gut infection and inflammation.

DOI: 10.1021/acs.bioconjchem.8b00880
PMID: 30669829

171: Yadav K, Kumar S, Mishra D, Asad M, Mitra M, Yavvari PS, Gupta S, Vedantham M, Ranga P, Komalla V, Pal S, Sharma P, Kapil A, Singh A, Singh N, Srivastava A, Thukral L, Bajaj A. Deciphering the Role of Intramolecular Networking in Cholic Acid-Peptide Conjugates on the Lipopolysaccharide Surface in Combating Gram-Negative Bacterial Infections. *J Med Chem.* 2019 Feb 28;62(4):1875-1886. doi: 10.1021/acs.jmedchem.8b01357. Epub 2019 Feb 11. PubMed PMID: 30688460.

The presence of lipopolysaccharide and emergence of drug resistance make the treatment of Gram-negative bacterial infections highly challenging. Herein, we present the synthesis and antibacterial activities of cholic acid-peptide conjugates (CAPs), demonstrating that valine-glycine dipeptide-derived CAP 3 is the most effective antimicrobial. Molecular dynamics simulations and structural analysis revealed that a precise intramolecular network of CAP 3 is maintained in the form of evolving edges, suggesting intramolecular connectivity. Further, we found high conformational rigidity in CAP 3 that confers maximum perturbations in bacterial membranes relative to other small molecules. Interestingly, CAP 3-coated catheters did not allow the formation of biofilms in mice, and treatment of wound infections with CAP 3 was able to clear the bacterial infection. Our results demonstrate that molecular conformation and internal connectivity are critical parameters to describe the antimicrobial nature of compounds, and the analysis presented here may serve as a general principle for the design of future antimicrobials.

DOI: 10.1021/acs.jmedchem.8b01357
PMID: 30688460

172: Yadav MP, Ballal S, Bal C. Concomitant (177)Lu-DOTATATE and capecitabine therapy in malignant paragangliomas. *EJNMMI Res.* 2019 Feb 6;9(1):13. doi: 10.1186/s13550-019-0484-y. PubMed PMID: 30725219; PubMed Central PMCID: PMC6365580.

BACKGROUND: The role of concomitant peptide receptor radionuclide therapy (PRRT) and capecitabine therapy has shown benefit in gastroenteropancreatic neuroendocrine tumors. However, data reporting its role in paraganglioma (PGL) patients is lacking. The aim of this study was to evaluate the role of combined capecitabine and 177Lu-DOTATATE in malignant PGL patients.

METHODS: In this retrospective, single-institutional, single-arm, observational study, data of consecutive advanced stage PGL patients treated with concomitant 177Lu-DOTATATE-capecitabine therapy, between July 2009 and March 2017, were

collected and analyzed.

RESULTS: Twenty-five PGL patients received an average dose of 22.86 ± 9.54 (14.43–50) GBq ^{177}Lu -DOTATATE and 1250mg/m² capecitabine from days 0 to 14, commencing on the morning of PRRT. The median overall survival (OS) was not attained in this patient cohort; however, the median PFS was 32 months.

Morphological response according to RECIST 1.1 criteria was achieved in 28% (7/25) patients. Biochemical response with >50% reduction in chromogranin A levels was observed in 28% of the patients.

CONCLUSIONS: Our data confirm that ^{177}Lu -DOTATATE-capecitabine therapy is effective in achieving an objective response in 28% and symptomatic response in 43% patients. In comparison to published PRRT monotherapy outcomes in PGL, we did not observe any great advantage of concomitant therapy; however, it could be due to under-powered study. We recommend a large randomized trial to prove or disprove the utility of capecitabine as a radiosensitizer for PRRT in PGL patients.

DOI: 10.1186/s13550-019-0484-y

PMCID: PMC6365580

PMID: 30725219

173: Zuberi M, Mir R, Khan I, Javid J, Guru SA, Bhat M, Sumi MP, Ahmad I, Masroor M, Yadav P, Vishnubhatla S, Saxena A. The promising signatures of circulating microRNA-145 in epithelial ovarian cancer patients. *Microna*. 2019 Feb 24. doi: 10.2174/2211536608666190225111234. [Epub ahead of print] PubMed PMID: 30799804.

BACKGROUND: Epithelial ovarian cancer continues to be a deleterious threat to women as it is asymptomatic and is typically detected in advanced stages. Cogent non-invasive biomarkers are therefore needed which are effective in apprehending the disease in early stages. Recently, miRNA deregulation has shown a promising magnitude in ovarian cancer tumorigenesis. miRNA-145 (miR-145) is beginning to be understood for its possible role in cancer development and progression. In this study, we identified the clinicopathological hallmarks altered owing to the downexpression of serum miR-145 in EOC.

METHODS: 70 serum samples from histopathologically confirmed EOC patients and 70 controls were collected. Total RNA from serum was isolated by Trizol method, polyadenylated and reverse transcribed into cDNA. Expression level of miR-145 was detected by miRNA qRT-PCR using RNU6B snRNA as reference.

RESULTS: The alliance of miR-145 profiling amongst patients and controls established itself to be conspicuous with a significant p-value ($p < 0.0001$). A positive conglomeration ($p = 0.04$) of miR-145 profiling was manifested with histopathological grade. Receiver Operating Characteristic (ROC) curve highlights the diagnostic potential and makes it imminent with a robust Area Under the curve (AUC). A positive correlation with the ROC curve was also noted for histological grade, FIGO stage, distant metastasis, lymph node status and survival.

CONCLUSION: Our results propose that miR-145 down regulation might be a possible touchstone for disease progression and be identified as a diagnostic marker and predict disease outcome in EOC patients.

Copyright© Bentham Science Publishers; For any queries, please email at epub@benthamscience.net.

DOI: 10.2174/2211536608666190225111234

PMID: 30799804