POSTER PRESENTATIONS
ABSTRACTS

"Analysis of Myoelectric Activation Patterns during Yoga Postures"

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Yoga, is an ancient culture in our country. In the present era, yoga has become an international subject. And the practice of yoga pose has developed as an approach to align, strengthen, and balance the structures of the body. And yoga consists of the basic positions of standing, sitting, forward bend, twisting, inversion, and supine pose. The purpose of this presentation is to explore the myoelectric activation patterns of different yoga poses, particular attention is paid to abdominal, hip and trunk musculature. The literature search is performed using the following electronic database: Cochrane library, Pub MED, Google Scholar, EMBASE, and web of science. The search terms used to contain: muscle activation and yoga posture OR yoga and rehabilitation OR Intervention AND Electromyography. Variation in myoelectric activation firing patterns depends on the trunk and pelvic positions during different yoga pose. The *Chaturanga Dandasana* and *Adho Mukha Svanasa* are effective for strengthening external oblique abdominis muscle, and *Utkatasana* and *Virabhadrasana* pose for targeting the Gluteus Maximus, and *Ardha utthanasana pose* for strengthening longissimus thoracis muscle. Based on results, it can conclude that the knowledge of myoelectric activation of different yoga pose can be used for designing of an evidenced based yoga program for treatment of musculoskeletal disorder and also to guide for clinical decision to making a rehabilitation program.

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Structure-Based Drug Design of BET-Family BRD2 Inhibitors

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Bromodomain containing protein (BRDs) monitors the level of histone acetylation and regulate epigenetically controlled processes like gene transcription and chromatin modification. BET family (Bromodomain and extraterminaldomain family) is one of the eight families, which contains two tandem bromodomains (BD1 and BD2) and a conserved extra-terminal domain. Dysfunction of BRD protein has been linked with development of several diseases. Altered protein acetylation, leading to deregulation of transcription function, is evident in several forms of cancer. BRD2 has been implicated in pathogenesis of cancer, neurodegenerative disorders such as Parkinson's disease and defects in embryonic stem cell differentiation. Inhibitors selectively targeting BRDs can pave path for new drug discovery against several types of cancer.

We have recently identifiedBRD2-BD2 specific inhibitors by in-silico screening using NCI Diversity Set III. We identified 20 potential compounds and performed co-crystallization screening using them with BD2.The compound NSC127133 binds significantly to BD2 at the histone acetyl-lysine binding pocket. The high-resolution crystal structure of the complex was determined at 1 Å resolution and we have proposed that NSC127133 is a potential lead molecule to develop a library for BD2 (Shilesh et al., 2016). The detailed crystal structure and biochemical study of the complex will be presented.

Reference

Shailesh T, Shruthi M, Prashant D, Manjula R and Padmanabhan B. (2016). A novel phenanthridionone based scaffold as a potent inhibitor of the BRD2 bromodomain: Crystal structure of the complex. PLoS ONE, DOI:10.1371/journal.pone.0156344.

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Effect of Oxcarbazepine on serum Brain Derived Neurotrophic Factor (BDNF) in bipolar mania

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Bipolar disorder involves dysfunctions of critical neurotrophic, cellular plasticity and neuroprotective processes due to abnormalities of neurotrophins (NTs) and other trophic factors. BDNF, which is one of the most studied and abundant NTs in the brain, is important for neurogenesis, neuronal survival, and normal maturation of neural development pathways. The present prospective, interventional, open label clinical study was conducted on 25 patients of bipolar mania and 25 healthy controls to evaluate the change in serum BDNF level with oxcarbazepine monotherapy in bipolar mania. Detailed history, clinical evaluation including YMRS scoring and serum BDNF were assessed at baseline for all 50 subjects. The bipolar patients were prescribed tablet oxcarbazepine and followed up after 4 weeks for clinical evaluation and re-estimation of serum BDNF and YMRS scoring. The serum BDNF level in bipolar manic patients were compared with healthy controls at baseline and results revealed that there was a significant reduction ($p=0.002$) in serum BDNF level in bipolar patients. At follow-up after 4 weeks, the increase in serum BDNF in bipolar group was significant and the mean change in serum BDNF in bipolar group was also found statistically significant ($p=0.02$) in comparison to healthy controls. The YMRS score and serum BDNF at baseline had an inverse relation ($r = -0.59$) whereas change of the YMRS score had a positive correlation ($r = 0.67$) with the change of serum BDNF over 4 weeks. Analysing the data of this study we can conclude that in bipolar mania serum BDNF level decreases and short term monotherapy with oxcarbazepine can increase the level and helps in restoring the neural functions.

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"TO Evaluate the Healing Effects of Punica granatum peel on Experimental Colitis" –by **Arpit Verma et al.,** Department of Pharmacology, AIIMS ,Raipur, CG-492001

ABSTRACT: **Objective:** To evaluate the healing effects of 50% ethanolic extract of dried peel of *Punica granatum* (PGE) on acetic acid-induced colitis in rats. **Methods:** *Punica granatum* peel extract was administered orally, once daily for 14 days in rats after the induction of colitis with 50% acetic acid and 100mg/ kg dose of extract was found to have optimal effect against acetic-acid-induced colonic tissue damage and adhesions. Effect of above dose of extract was then further studied for its effects on various physical and biochemical changes in the colonic tissue. It included physical parameters like fecal output, presence of blood/mucous, changes in body weight, food and water intake done till 14th day of experiment while other physical (colonic tissue damage score ,colonic weight and adhesions) and biochemical parameters (antioxidants-superoxide dismutase and reduced glutathione ; free radicals-nitric oxide and lipid peroxidation) were studied on 15th day of experiment in 18 hours fasting rats. Antibacterial activity of the extract was also studied using in vitro procedures.
Results: *Punica granatum* peel extract (PGE) decreased colonic damage and enhanced the antioxidants but decreased free radicals activities in the colon affected in acetic acid colitis. Acute toxicity study indicated no mortality or other ANS or CNS related adverse effects even with 500 mg/ kg dose (10 times of effective dose) indicating its safety.
Conclusions: *Pumica granatum* peel extract (PGE) seemed to be safe and effective in colitis by its predominant effect on promoting antioxidant status and decreasing intestinal bacterial load and free radicals responsible for tissue damage and delayed healing.

Reference: Ghatule RR, Goel Shalini, Gautam MK, Singh A, Joshi VK, Goel RK; Effect of Azadirachta indica leaves extract on AA-Induced colitis in rats: Role of antioxidants, free radicals andmyeloperoxidase. Asian Pac J Trop Disease,2012;2(2):S651–S657.
Effect of methanolic extract of *Pongamia pinnata* seed on gastro-duodenal ulceration and mucosal offensive and defensive factors in rats. T. Prabha, M. Dorababu, Shalini Goel,P.K. Agarwal, A. Singh, V. K. Joshi, & R.K.
Goel, Indian J Exp Biol, 2009,47:649-659.

SAFETY AND ROLE OF SMALL VOLUME PLASMAPHERESIS IN CHILDREN WITH AUTOIMMUNE ENCEPHALITIS

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Background: *N*-methyl-d-aspartate receptor (NMDAR) antibody encephalitis is a recently recognized immunotherapy-responsive pan-encephalitis with characteristic features that include a psychiatric onset and a later movement disorder. There are no established guidelines but clinicians have commonly used pulsed intravenous methylprednisolone followed by high-dose oral prednisolone, with addition of plasma exchange and/or IVIg

Patients were referred to transfusion medicine center for plasma exchange. The procedure is usually done by automated or manual methods. We have done manual method in children because of low body weight and economic constraints.

Aim: The aim of the study was to find the safety and efficacy of small volume plasma exchange.

Materials: The study was performed over a period of 9 months from January to September 2016, at Transfusion Medicine Centre, National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, South India. The study included 11 children in the age group of 4 to 12 years. Only cases with diagnosed NMDA were included for the study. Of these 3 were males and 08 females constituting 73%. The body weight of all the patients was below 35 kgs, the minimum being 10 Kgs and maximum 30 Kgs. Each patient underwent 5 to 10 procedures on consecutive days.

Methods: Whole blood, 10 ml per kg body weight, was collected into a double bag. All the patients underwent phlebotomy through peripheral venous access: antecubital vein. The bag was centrifuged at 5000 g for 10 minutes at four degree centigrade. All the plasma was expressed under laminar flow bench into a satellite bag, the tubing was sealed and the satellite bag was separated. The plasma was discarded as per standard protocol. Requisite amount of normal saline was added to the packed cells with sterile infusion set in ultraviolet hood and sent to the ward for infusion to the patient. One unit FFP was used as replacement for protein loss, on alternate days. A total of 247 procedures were performed. The maximum was 20 exchanges in two patients (0.6%) of autoimmune encephalitis and the minimum was three exchanges in three (0.9%) patients of GBS. The rest of the patients underwent five to ten procedures.

Results: No procedure related complications occurred in any of the patients. One patient had allergic reactions to FFP infusion in the form of rash and itching. The reactions were mild to moderate in nature and subsided with antihistaminic agents. All the children showed signs of arrest of the progression of the disease and later showed clinical improvement during the stay at hospital. All of the patients are being followed up by the neurologist and

Conclusion: From our experience plasma exchange is safe and effective procedure in children with NMDAR disease. This procedure is can be done hospitals attached blood banks having blood component facility but no apheresis machine; this will avoid huge expenditure involved in automated plasmapheresis or IVIg

Pattern, correlates and implications of multi-morbidity among older adults in selected Indian states

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Objectives: The objective of the present study was to estimate the proportion of older adults with non communicable disease (NCD) multi-morbidity, its correlates and implications in selected Indian states.
Methods: The study used data of 9,852 older adults (=60 years) (men 47%, mean age 68 years) collected by the United Nations Population Fund from seven selected Indian states. Multiple logistic regression analysis was used to assess the correlates of NCD multi-morbidity and hospitalization.
Results: NCD multi-morbidity was reported by 30.7% (95% CI 29.8-31.7). Those in the highest wealth group (OR 4.68, CI 3.90-5.62), aged >=70 years (OR 2.44, CI 2.19-2.71), alcohol users (OR 1.53, CI 1.25-1.89), women (OR 1.51, CI 1.35-1.69) and tobacco users (OR 1.22, CI 1.08-1.37) were more likely to report NCD multi-morbidity compared to those without any NCD. Those with multi-morbidity (OR 2.34, CI 1.84-2.98) and the wealthiest (OR 2.07, CI 1.42-3.02) were more likely to be hospitalized due to NCD in the last year compared to those with single NCD and lower wealth index respectively.
Conclusions: Multi-morbidity needs to be considered for planning NCD health services provision particularly inpatient facilities focusing on alcohol users, tobacco users and women. Further studies are required to find out reasons for higher rates of multi morbidity among the wealthier group other than higher health services utilization and detection rates.

Impact of smoking, occupation and Lifestyle on male fertility

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The present study evaluated the impact of smoking, occupation and lifestyle on male fertility. A total of 200 subjects were recruited for the study from the Division of Infertility, Department of Urology, SMS Medical College and Hospital, Jaipur. The data obtained were statistically analyzed using ANOVA and correlation was drawn among various parameters. A significant ($p<0.05$) decline was observed in sperm motility and vitality above the age of 30 years. A significant inverse ($r= -0.25, -0.20$, $p<0.05$) correlation were found between sperm motility and vitality to higher age group. In lower age group, conversely, these parameters were found to be positively correlated with age. Highest prevalence of azoospermia occurs in farmers (66.66%, 50%). The least azoospermia were found among casual laborers in both high and low age groups. In lower age group highest percentage of azoospermia (55.55%) subject were alcoholics and smoker (50%) and 50% severe oligozoospermia subjects were smokers in both the groups. The age is intimately related to decrease in sperm motility and vitality, whereas, least effect is observed on sperm count. Occupationally, highest prevalence of abnormal semen quality is noticed in farmers. Lifestyle of smoking and alcohol consumption further diminishes the semen quality.

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"A study of patient satisfaction and expectation in a newly established tertiary-care teaching hospital: a cross-sectional study"

Background: AIIMS in Patna, India, was started as a tertiary-care centre under Pradhanmantri Swasthyay Surakshha Yojna scheme of Government of India. For a newly developing institute, patients' satisfaction regarding clinical services is of utmost importance for the overall growth of the institute.

Objective: To find out the level of patient satisfaction related to different parameters of quality health care in a newly established tertiary-care hospital and to understand the expectation of the patients with respect to quality of delivered health-care services.

Materials and Methods: A cross-sectional study was conducted among the patients attending OPD of AIIMS, Patna. Total number of patients interviewed using questionnaires were 445 from different departments.

Result: Around 47% patients told that more than 10 min were given to them during consultation and 95.5% patients were satisfied with the time given to them. Around 82% patients thought that treatment/suggestion given to them were either excellent or good. Around 74% patients were satisfied with treatment plan discussed with them. Around 86% had told that attitude of doctors at AIIMS, Patna, was better than doctors at other institutes where they had visited previously. Mean rating to doctors and other health staffs on the basis of advice/treatment given by them was 8.30 and 8.01, respectively, on a 0–10 scale. Around 55% patients thought that drugs should be free to them. Around 63% patients thought that investigations should be free to them and 59% thought that this institute should work as tertiary centre but see all the patients who come to OPD.

Conclusion: Patient's satisfaction from health care decides the fate of health-care providers and health-care delivery system. The institute management need to ensure that the quality care is being provided and a standard is maintained by routine patient feedbacks and evaluation. Training of the faculty needs to be organized routinely.

Escitalopram in disorder of laughter and crying with predominant laughter incontinence

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Disorder of laughter and crying (DLC) is a condition defined by sudden, uncontrollable episodes of laughter, crying or both, which occurs without any apparent internal or external emotional cues, and frequently occurs incongruous to the hedonic mood state. This construct has been alternatively termed as pseudobulbar affect, emotional incontinence, or pathological emotionalism. This condition is associated with various neurological disorders, such as stroke, multiple sclerosis, gelastic epilepsy, Parkinson's disease, pseudobulbar palsy, Amyotrophic lateral sclerosis (ALS) and tumours in the cerebellopontine region. We intend to report an interesting case with the clinical presentation of DLC of hyperactive, motor, negative type with presentation of predominantly paroxysmal incontinence of laughter which responded dramatically to Escitalopram. This report highlights the use of SSRIs in such atypical presentation of DLC, which opens up further research possibilities in this domain.

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Solitary Fibrous Tumor of lateral Pelvic wall: a rare differential with newer trends in their management

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Introduction: Solitary Fibrous Tumor (SFT) is a rare soft tissue sarcoma resembles hemangiopericytoma. Most common site is pleura. It is benign, but may recur locally or at distant sites despite of clear margin of resection. The relationship between histology and clinical behavior is unpredictable.

Case report: A 53-year male presented with painless lump in hypogastrium, with frequency, dysurea and constipation for 6 month. On examination a 6×5 cm well defined, smooth, nontender, hard lump was present in hypogastrium. DRE revealed extramural left pelvic wall mass with retained mucosal integrity. There was history of occasional cough with haemoptesis.
CECT abdomen suggested homogenous, well encapsulated, highly vascular, hypoattenutaed mass of 10×8 cm from left lateral pelvic wall with maintained fat plane. Pulmonary metastasis was present.

Incisional biopsy suggested spindle cell tumor with mild nuclear atypia. Immunohistochemistory was positive for CD-34, CD99-, and bcl-2, Vimentin and KI 67< 1 % (suggests SFT).

The patient was managed by tumor embolization and oral sorafenib. There was no tumor progression in last in last one year. Long term result is still awaited.

Conclusion: In unresectable /metastatic tumor the chemotherapeutic drugs have very limited role. The anti-angiogenic drugs (bevacizumab with temozolomide) and targeted therapy of sunitinib, sorafenib, or imatinib can be tried.

Supraclavicular Cutaneous Metastatsis from Squamous cell Carcinoma of Penis

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Penile cancer is considered a disease of the developing nations. A structured patient awareness system that can allay the social stigma attached with this entity is virtually non-existent in these countries. Delay in seeking medical attention accounts for the increased incidence of loco regional spread and distant metastasis at the time of initial evaluation. An elderly gentleman reported to us with a painful left supraclavicular swelling of two weeks duration. The patient had undergone partial penectomy with bilateral ilio-inguinal block dissection for squamous cell carcinoma of penis three months back. Fine needle aspiration cytology of the supraclavicular mass revealed metastatic squamous cell carcinoma consistent with the microscopic features of the index penile lesion. The patient requested for excision of the neck lesion due to the associated constant pain and cosmetic disfigurement. Wide excision with a 1 cm margin was carried out under local anesthesia. The patient was subsequently administered taxane based chemotherapy for management of disseminated disease. Distant cutaneous metastasis heralds the presence of disseminated disease and is an indication for prompt initiation of chemotherapy. Local excision of the solitary metastatic mass offers rapid pain relief and safeguards against future development of local complications like recurrent infection, ulceration, and fungation.

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The Versatility of Perforator-Based Propeller Flap for Reconstruction of Distal Leg and Ankle Defects

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The propeller flap is a local island fasciocutaneous flap based on a single perforator. It is designed like a propeller with 2 blades of unequal length with the perforator forming the pivot point. when the blades are switched along the perforator as a pivot point, the long arm comfortably fills in the defect. The ability of this flap to rotate any angle up to 180 degrees makes it extremely versatile for reconstructing traumatic as well as other defects of the distal lower limb. AIMS AND OBJECTIVE of our study is to show the versatility of perforator flap in relation to technique, time of surgery, donor site morbidity and aesthetic outcome. From May 2016 to October 2016, 5 patients were treated with perforator-based propeller flap for distal leg and ankle defects. Flap was based on single perforator of posterior tibial or peroneal artery rotated up to 180 degrees. RESULT: One patient had distal margin necrosis of 2.5 cm x 0.5 cm which required excision and primary closure. CONCLUSION: The perforator-based propeller flap for distal leg and ankle defects is a good option in comparison to free flap. The technique is safe provided meticulous design and technique are used, less time consuming, and with minimal donor site morbidity with aesthetically satisfactory result.

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Surgical Correction of "O" Deformity of the lower limbs

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Introduction: Multiple deformities of the femur and tibia in a child are known to occur in Multiple hereditary exostosis or diaphyseal achalasia, polyostotic fibrous dysplasia, Osteogenesis imperfect, Achondroplasia, multiple epiphyseal dysplasia and Rickets. Rickets is well known to bring about multiple bony deformities of the lower limb in the form of Bow legs, Knock Knees, Wind Swift Deformities and stunted growth. We are reporting a 6 year old girl with stunted growth and an "O" deformity of the lower limbs and a waddling gait which was corrected by a single diaphyseal osteotomy of each femur and tibia to give her parallel limbs and a normal gait.

Case Report: Having corrected the Vitamin D deficiency and keeping a 3 week vitamin D supplement free period to avoid postoperative hypercalcemia both the femur were corrected by ball and socket osteotomy stabilized by LCP. 3 weeks later the same procedure was done for the tibia and Plaster of Paris casts were given. All the 4 osteotomy united by the end of 2 months and now the child is walking with a normal gait.

Conclusion: Although bony deformities in children with rickets gets corrected with vitamin D supplementation and remodeling , severe deformities do not remodel specially in hypophosphatemic rickets and also disturb the gait. Surgical correction is well established in these children following multiple osteotomy being stabilized by exfix, Ilizarov, Intramedullary rod, K wires and JESS distractors etc. We used LCP's for a single stage stable fixation of both femur and then the tibia and found this procedure beneficial to the patient.

Referrences:
1. Choi IH, Kim JK, Chung CY, et al: Deformity correction of knee and leg lengthening by Ilizarov method in hypophosphatemic rickets: outcomes and significance of serum phosphate level, *J Pediatr Orthop* 22:626, 2002.

2. Petje G, Meizer R, Radler C, et al: Deformity correction in children with hereditary hypophosphatemic rickets, *Clin Orthop Relat Res* 466:3078, 2008.

Management of Idiopathic Clubfoot By Ponseti Method

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Abstract

Background: Clubfoot occurs approximately 1 in 1000 live births and is one of the most common congenital birth defects. There have been many reports of successful treatment of idiopathic clubfoot with Ponseti method in the western world, but there are only few studies done in the developing country like India. So the present study was undertaken with the following objective.

Objective: To evaluate the efficacy of Ponseti method in the treatment of idiopathic clubfoot.

Methodology: A study was conducted from August 2015 to August 2016 in AIIMS Raipur. Total 12 patients (20 clubfoot) were evaluated in our study. All patients were treated by manipulation and casting as described by Ponseti. Main outcome measures included in the study were, the degree of correction of the deformity and the effect of different variables in the course of management.

Results: In our study, we treated 12 babies with idiopathic clubfoot by Ponseti method, among them 08 had bilateral affection. The mean age of the babies was 14 weeks. Out of the 12 babies, 12 of the 20 feet had deformity of a severe grade i.e., Pirani score of 5 and above. The average number of casts required were increased as age of presentation increases indicating increasing difficulty and delay in correction of babies who presented late. The results were excellent in 74% (14 out of 20) and good in 26% (6 out of 20).There was significant improvement in Pirani score.

Conclusion: Ponseti method is a very safe, efficient and economical treatment for the correction of clubfoot which radically decreases the need for extensive corrective surgery. The results are excellent when treatment begins early.

Keywords: Ponseti method, Idiopathic clubfoot, Pirani score, Tendotomy

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Medical Management of Dental Caries

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Dental caries is an infectious disease which has affected the human civilization from time immemorial. Traditionally restoration of the even incipient lesion mainly focused on surgical model. This surgical management can lead to several lifetime replacement procedures, resulting in an increased restoration size or more invasive procedures over timeand ultimately leading to extraction of tooth. Now the traditional approach of Drill &Fill surgical attitude has been taken over by the medical model by modifying and correcting factor that favors oral health. The current approach for dental caries managementfocuses on modifying and correcting factors to favor oral health. This posterhighlight the medical management of dental caries.

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Fibroids in mullerian agenesis: a diagnostic dilemma – Case report

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Mullerian agenesis is the most severe form of mullerian anomalies, occurring due to failure of fusion of mullerian ducts at 6th and 7th weeks of embryonic life and resulting in absent or hypoplastic uterus and variable degree of vaginal hypoplasia. Leiomyoma are the most common benign tumor occurring in the uterus but the occurrence of leiomyoma in hypoplastic uterus is a rare event and degeneration is even more rare. We are reporting a case of mullerian agenesis, where fibroids with myxoid degeneration led to the diagnostic dilemma and extensive work up for adnexal mass.

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Sex Chromosome Aberrations in Premature Ovarian Failure: A Pilot Study

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Premature ovarian failure (POF) is a primary ovarian defect with symptoms of absent menarche (primary amenorrohea) or premature depletion of ovarian follicles before the age of 40 years (secondary amenorrhea). The etiology of POF remains idiopathic in many cases. Studies have shown that idiopathic POF has a strong genetic association with sex chromosomal aberrations. These chromosomal aberrations remain unidentified with the conventional cytogenetic techniques. Comparative genomic hybridization (CGH) microarray identifies the submicroscopic chromosomal rearrangements with higher genomic resolution. Selection of POF subjects (24) was based on occurrence of secondary amenorrhea with elevated levels of FSH (= 40 IU/L) on two different occasions of 4-6 months apart. Each sample was processed for array CGH (Agilent protocol version 7.3). The results were compared with the data software (Agilent Cytogenomics 3.0.1.1).

In the present study, at X chromosome, around 10 loci between varied base pair lengths showed gene alterations such as deletions, amplification, loss and gain. These loci showed presence of various genes already implicated in POF such as ZNF185, TMLHE, PNMA5, DACH2, CYLC1, HMGN5, RPA4 etc. The presence of known genes in our sample group strengthens their association in POF. Various other unknown genes were also observed, about which no information regarding their association with POF, is mentioned in the data bases. These genes can be assigned as genetic markers of POF once enough data proves their presence in POF. Early identification of these genetic alterations helps in early diagnosis of familial POF. This will help in predicting the likelihood of early menopause and allow these women to opt for embryo preservation techniques or planning early pregnancy.

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Necrotizing fasciitis after spinal anesthesia.

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Regional anesthesia is the preferred technique for Cesarean delivery. Strict aseptic precautions should be taken; otherwise, infectious complications including abscess formation, meningitis and necrotizing fasciitis may result.

We report a case of a 26-year-old post-partum female who presented with necrosis of the skin of back following spinal anesthesia, which was administered for Cesarean delivery 5 days prior at a private nursing home. On presentation, she was drowsy, appeared dehydrated and febrile. Examination of her back revealed necrosis of skin extending from just below the scapula to the gluteal region. Debridement of skin over the back was performed, and intravenous antibiotics started. After three debridements following which skin grafting was performed, she made complete recovery. Infectious complications following regional anesthesia are rare, and most of the literature focuses on colonization of epidural catheters or epidural abscess. There is no report of necrotizing fasciitis following spinal anesthesia so far.

Sources of infection that are suspected in our case include:

- local anesthetic solution used for subcutaneous infiltration,
- nonadherence to aseptic precautions,
- skin flora of patient, endogenous source and
- nasopharyngeal flora of anesthesiologist.

We considered each possibility, and the most likely cause in our case appears to be infection from an already-used vial of a local anesthetic agent. Local anesthetics have bacteriostatic properties, but infection may still be transmitted through contaminated solutions. The present case highlights the importance of maintaining strict aseptic precautions, avoiding reusing multidose vials and early recognition of this complication as timely intervention can be lifesaving.

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Case series of a neglected tropical disease: Ocular cysticercosis in school going children from foothills of north Himalayan region of India

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Ocular cysticercosis is a parasitic infection caused by larvae of *Taenia solium* occurring in 10-30% of the infected patients in endemic areas. It is one of the neglected tropical diseases. It may cause significant visual loss if not treated in time. Here we report three cases of ophthalmic cysticercosis in school going children, all of whom were vegetarian by diet. Each case was unique representing varied clinical features and treatment requirements.

Case 1- A five-year-old school going female presented with painless nodular swelling in her left eye for 3months. On examination a subconjunctival nodule measuring 7mm x 6mm, about 3mm nasal to the limbus. Radiological findings revealed a well-defined cystic lesion with well-defined eccentric hyperintensity suggestive of extraocular cysticercosis. Histopathological examination showed features of cysticercosis cellulosae. ELISA was equivocal.

Case 2- A fourteen-year-old male presented with nodular painless swelling in the lateral aspect of the left eye since 8 years. Ocular examination revealed a swelling measuring 13mm x 11mm about 6mm temporal to limbus. Clinical and radiological findings were suggestive of subconjunctival cysticercosis which was confirmed by Histopathological Examination after a surgical excision. ELISA was positive for Cysticercosis.

Case 3- An eleven-year-old girl, vegetarian by diet presented with complaints of blurred vision and floaters in right eye for more than 3 weeks. On retinal examination a single translucent vitreous cyst was found which on ultrasound scans had features suggestive of intravitreal cysticercosis. Patient was taken up for pars plana vitrectomy for the removal of the cyst which was removed piecemeal.

Conclusion-Ocular cysticercosis is emerging as a common disease in the tropics but oftenly remains neglected. The diagnosis is mainly based on clinical features, radiology and histopathology. Awareness about importance of early diagnosis, appropriate surgical & medical management with appropriate anthelminthic drugs should be increased among clinicians & community.

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Thoracic wall desmoid: a rare case report

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Introduction: Desmoids are slow-growing, benign tumors, invade locally and have a tendency to recur despite of clear surgical margins. It occurs around limb girdles, proximal extremity, abdominal wall and in bowel mesentery. The desmoids involving thoracic wall is the first case report of the literature.

Case report: A 20-year-old female presented with a painless gradually increasing mass in the right hypochondrium for 3 months. She had no history of fever, jaundice, weight loss, bleeding disorder, abdominal surgery/ trauma. A 8×3 cm, non-tender, smooth, firm, non-fluctuant and non-transillutminant lump was palpable in midclavicular line, whose upper margin couldn't be reached.

CECT revealed a homogenous mass 8 ×7.3×3 cm mass from lower three intercostals muscles along midclavicular with minimal post contrast enhancement.

FNAC was inconclusive so wide excision of tumor, segmental resection of adjacent ribs with repair of diaphragm was done (figure 2). Histopathology and IHC was positive for Vimentin, smooth muscle actin and beta catenin. Ki 67 was positive < 1 %. The patient was discharge on 6th postoperative day.

Conclusion: Wide excision is the first line management in desmoids. Re excision, Radiation therapy or drug therapy are often used with recurrent disease/ alternative to mutilating surgery.

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Use of trochar intercostal drain as tunneller in hydrocephalous: a novel technique

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Introduction:

Insertion of Ventriculoperitoneal shunt in hydrocephalous requires creation of subcutaneous tunnel. Many times when tunneller is unavailable it becomes difficult. This report highlights the use of trochar intercostal drain as tunneller.

Case report:

3 month male child with massive hydrocephalous and features of raised intracranial pressure requiring urgent intervention. As tunneller was unavailable other possible options were explored. Trochar intercostal drain was considered due to its easy availablity in sterile ready to use pack.

Semicircular incision was given over right parietal region. Number 16 intercostal drain with trochar was inserted in the shallow space created and advanced under guidance towards right hypochondrium. Stab incision was given over the drain; abdominal end of the shunt was inserted through the drain after removal of trochar to guide it downwards after cutting the conical end of the drain. The remaining procedure was completed as it is done usually. Total time required was 45 minutes and 30 seconds were required for the creation of the tunnel.

Conclusion: Trochar intercostals drain is an easily available alternative. Its use can be popularized even in setups with limited facilities.

References :

1. Welch K. The intracranial pressure in infants. J Neuro surg 1980;52:693-9.
2. Ahmed M, Asif M, Ahmed N, Raja IA. The role of Surgery in the management of hydrocephalus. Ann King Edward Med Coll 1998;4:50-2.

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Diagnostic and Management dilima for adenocarcinoma third part duodenum: A case report

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Introduction: Dudenal adenocarcinomas (DA) (represent 0.3% of malignant gastrointestinal tumors, mostly found in D2 duodenum [1]. We report a rare case of adenocarcinomas D3 of duodenum (very rare in the literature) with discussion on controversies in their diagnosis and management.

Case report: A 65-year-old woman presented with a two month history of intermittent bilious vomiting, post-parandial abdominal pain and weight loss. Per-abdomen examination was normal. CEA, CA 19-9), and 125 (CA-125), were markedly raised. First esophagogastroduodenoscopy upto D2 duodenum was normal. Abdominal ultrasound was normal. CECT abdomen revealed dilated stomach and D2 duodenum, but no growth in

duodenum (Figure 1). Due to CT findings, second endoscopy was performed which confirmed an ulcerative, intraluminar mass, completely occluding D3duodenum. Histology demonstrated an adenocarcinoma with moderate differentiation.

Intraoperatively, a solid mass of around 2×2 cm completely occluding lumen of D3. Whipple operation with locoregional lymph-node dissection was done. Histopathology verified moderately differentiated adenocarcinoma without any lymph node involvement. On 15th posopday patient died because of severe fulminant acute pancreatitis.

Conclusion: Adenocarcinoma of third/ fourth part of duodenum presents diagnostic challenge as symptoms may be subtle, until tumor is advance. Whipple operation or segmental resection with locoregional Lymphnode dissection is the ideal treatment

Phosphodiesterase (PDE) inhibitors and their interaction with nitric oxide (NO) in adjuvant-induced rheumatoid arthritis in rats

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Theophylline (non-specific PDE inhibitor) and their interactions with nitric oxide modulators were evaluated in adjuvant-induced arthritic model of rats. Wistar rats (200-300g), 8 animals per group were used in the study. The animals were injected with 0.1mL of squalene and 0.2mL of complete Freund's adjuvant on day (0) in sub-planter region of right hind paw controls received only saline. The treatment with theophylline and nitric oxide modulators were done from day 14 to day 28. Arthritis indexes, ankle diameter, paw volume, and body weight were determined to assess RA progression from day (0) to day 28. On day 28 animals were sacrificed and their blood collected for IL-10 and TNF-α cytokine levels and hind paw for pathological analysis. Synovial fluid from joint spaces of CFA inoculated rats was collected to estimate TNF-α level in synovial fluid. The data obtained was analysed by two-way ANOVA followed by the Newman-Keuls post-hoc test. Theophylline (10 and 20mg/kg) significantly decreased adjuvant induced increased arthritis-index, paw volume and ankle diameter ($p<0.05$ in all parameters) compared to only adjuvant control group. It also reversed adjuvant induced slight decrease in body weight to normalcy. l-Arginine 100mg/kg+theophylline 20mg/kg suppressed TNF-α and elevates IL-10 level as well as reversed adjuvant-induced elevated arthritic parameters as compared to only adjuvant and prednisone group ($p<0.001$).

Synovial TNF-α level of adjuvant only group was several fold higher than its serum level. Treatment with theophylline 20mg/kg significantly reduces synovial TNF-α level as compared to adjuvant only group. Theophylline 20mg/kg+L-NAME 10mg/kg significantly reversed these adjuvant-induced changes in immunological, histopathological and arthritis parameters ($p<0.05$).

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ASSESMENT OF CARDIOVASCULAR SYMPATHETIC REACTIVITY TO COLD STRESS USING DIGITAL VOLUME PULSE CHARACTERISTICS IN HEALTH AND DIABETES

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Objective. Cold pressor test (CPT) assesses cardiovascular sympathetic reactivity by the rise in diastolic blood pressure secondary to the vasoconstriction during immersion of hand in cold water. Assesment of sympathetic reactivity in health and diabetes during CPT has been attempted by objective measures of Photoplethysmogram (PPG) that include pulse transit time (PTT).

Methods. Finger-PPG characteristics were studied before and during CPT (1 min) in 10 healthy volunteers and 10 diagnosed Type 2 Diabetes Mellitus (DM) patients. In controls, the recordings were continued for 5 min after CPT.

Results. PTT was signi?cantly shortened in control and DM groups (180.0±3.8 ms vs. 187.1±3.9 ms, P<0.006, 177.7±7.0 ms vs. 192.9±5.6 ms, P = 0.002, respectively) during CPT as compared to baseline. However, the decrease in PTT was signi?cantly higher (-15.2±3.4 ms vs. -6.0±1.9 ms, P = 0.03) in DM patients than controls.

Conclusion. This preliminary study suggests that the responses of PTT can be used to objectively quantify the sympathetic reactivity to cold stress in health as well as to detect the de?cits of vascular reactivity in diabetes.

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Male infertility and Tobacco: at Genetic Level

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Background:Almost half of the total infertility is due to male factor. Tobacco has countless ill effects on our body. It has substances like nicotine, tar, CO, benzopyrenes, cadmium and lead. These affect the sperm at molecular level. There are many markers to detect the effect of tobacco on sperm DNA.

Material and Methods: To see the association between semen (sperm) and tobacco we searched database of PubMed and Google scholar of recent 10 years manuscripts.

Result: Nicotine from smoking is the main hazardous substance present in serum and semen after active and passive smoking. Effect of these substances result from elevated oxidative stress, DNA damage and cell apoptosis. Additionally, we found controversial results on effects of smoking on male fertility.

Conclusion: Tobacco smoking may reduce semen quality like volume, motility, viability and morphology. Reproductive hormones levels, functions of seminiferous tubules ie spermatogenesis, epididymis function, spermatozoa maturation and spermatozoa acrosomal activity are affected by smoking. Although there are controversies, smoking definitely affects semen parameters and they do get benefitted after quitting smoking.

Radiographic Assessment for Technical Quality of Root Canal Treatment Performed by Undergraduate Students at King George's Medical University, Lucknow, India.

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Total of 525 teeth were prepared by step back technique using K-files of 0.02 taper and filled with gutta-percha using a cold lateral condensation technique.

Periapical radiographs were used to assess the technical quality of the root canal filling, evaluating three variables: Length, Density and Taper. These data were recorded and used to study the "technical success rate".

Length of each root canal filling was classified as acceptable, non-acceptable and based on their relationship with radiographic apex. Density and taper of filling were evaluated based on the presence of voids and the uniform tapering of the filling, respectively.

Statistical analysis was used to evaluate the quality of root canal treatment, considering $p < 0.05$ as a statistical significant level.

Overall, acceptability of root canal treatment in anterior and posterior teeth in maxillary and mandibular arch was found to be77.7%.The acceptability was significantly higher among anterior teeth (85.9%) compared with posterior teeth (72.1%).The acceptability was 1.19 times higher in anterior teeth than posterior teeth ($p=0.0002$).

This study showed that the overall technical quality of root canal fillings done by non-specialists (under graduate students) was better than earlier reports.

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