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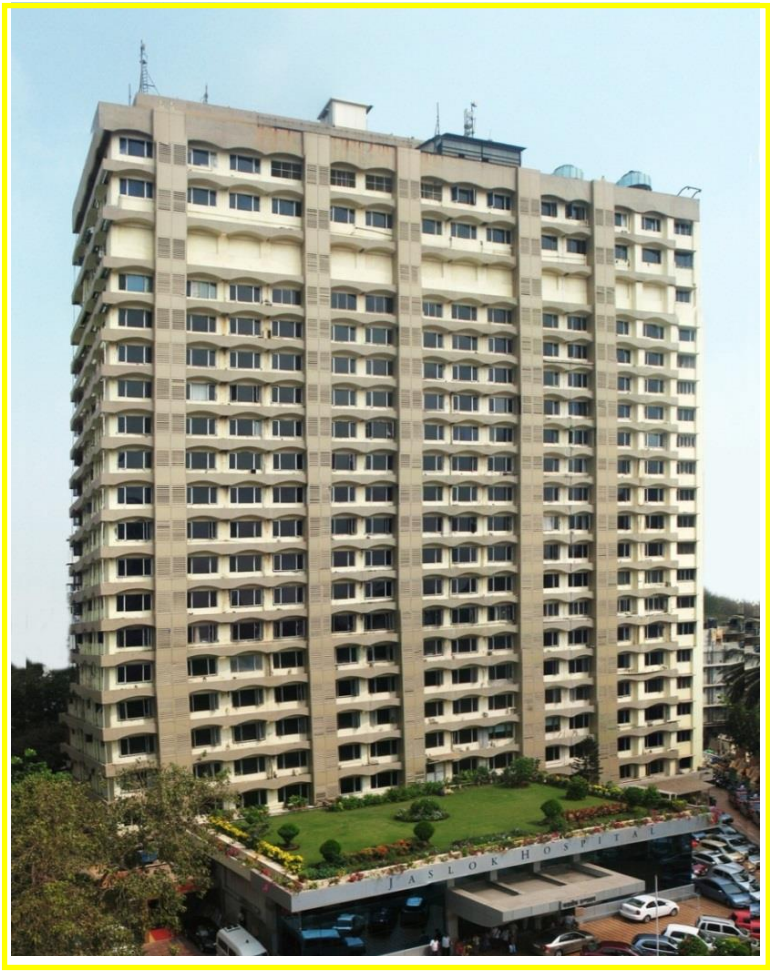

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Index

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Editorial

The Health Hazards of Climate Change

For the past 30 years we have been observing a reduction in visibility from our home overlooking the sea. Each winter we see less and less of what lies beyond the sea. This year we could barely see the buildings a kilometer away. Accompanying these changes is an increase in upper respiratory tract disorders in our family and staff.

Most of us are witness to the deteriorating pattern of respiratory illnesses around us. Last week I did an informal count indicating that 15 percent of patients who had come to consult me for a mental health related issue had an upper respiratory tract disorder. Delhi has the dubious distinction of being the most polluted city in the world. Experts have estimated that just breathing the air in Delhi is the equivalent of smoking 50 cigarettes a day.

The U.S. Global Change Research Program warns that "Current and future climate impacts expose more people in more places to public health threats." As the climate continues to warm, regions that already experience dangerous weather conditions are going to see more of them, and there will be new, unprecedented health threats. The WHO estimates that from 2030 to 2050, climate change impacts will cause 250,000 more deaths globally each year, mainly from malnutrition, malaria, diarrhea, and heat stress.

Average temperatures have been rising each year across the world on account of carbon emissions. With rising temperatures, more people will suffer heat cramps, hyperthermia and heat stroke. Prolonged exposure to heat can exacerbate cardiovascular, respiratory and kidney diseases, diabetes, and increase the chance for stroke. The World Health Organization estimates that, globally, 38,000 elderly will die from heat exposure between 2030 and 2050.

Flooding due to heavy rain, hurricanes and coastal storms will have numerous health impacts. Other than injuries and drowning, floods contaminate water leading to a surge in water borne illnesses. Increasing humidity can cause indoor mold and dust mites which exacerbate asthma and bronchitis. Rodents and insects which trigger allergies and carry pathogens such as hantaviruses, could be driven indoors by extreme rain.

It is estimated that climate change related illnesses account for five million illnesses and 150,000 deaths annually across the world. As medical professionals our role in preventing diseases necessitates that we take an active role in movements that increase awareness of the dangers of climate change resulting from human pollution.

Rajesh M. Parikh, M.D., D.P.M., D.N.B.
Director, Medical Research

Abstracts

Oral Bisphosphonate Induced Recurrent Osteonecrosis of Jaw with Atypical Femoral Fracture and Subsequent Mandible Fracture in the Same Patient: A Case Report

Pispati A, *Pandey V*, *Patel R*

Journal of Orthopaedic case reports 2018;8:85-88.

Oral bisphosphonates are commonly prescribed for osteoporosis to arrest bone loss and preserve bone density. Complications such as atypical femoral fractures (AFF) and osteonecrosis of jaw (ONJ) are rare. We describe a case of a 60-year-old patient who was on oral bisphosphonate therapy for osteoporosis and developed ONJ, AFF, recurrent ONJ, and subsequent mandible fracture with delayed AFF union - this is a very unique and extremely rare case. For the same, she underwent multiple surgeries - sequestrectomy in the mandible, proximal femoral nailing for femur fracture and plate fixation for her jaw. The delayed union needed teriparatide administration. At 1 year follow-up, the patient had a complete radiological union for AFF and on recent follow-up the patient is asymptomatic as regards the femur as well as the jaw. This unique sequence of events has not been described previously.

This case report shows the possibility of extremely rare adverse effects happening sequentially in the same patient with long-term oral bisphosphonate therapy. Patients need to be informed and monitored regularly for symptoms such as jaw pain and thigh pain and if these occur, the drug must be stopped immediately, and other alternative medical treatment for the osteoporosis should be started.

Indian guidelines on neurosurgical interventions in psychiatric disorders

Doshi PK, Arumugham SS, Bhide A, Vaishya S, Desai A, Singh OP, Math SB, Gautam S, Satyanarayana Rao TS, Mohandas E, Srinivas D, Avasthi A, Grover S, Reddy YCJ

Indian Journal of Psychiatry 2019; 61:13-21.

Neurosurgery for psychiatric disorders (NPD) has been practiced for >80 years. However, the interests have waxed and waned, from 1000s of surgeries in 1940-1950s to handful of surgery in 60-80s. This changed with the application of deep brain stimulation surgery, a surgery, considered to be "reversible" there has been a resurgence in interest. The Indian society for stereotactic and functional neurosurgery (ISSFN) and the world society for stereotactic and functional neurosurgery took the note of the past experiences and decided to form the guidelines for NPD. In 2011, an international task force was formed to develop the guidelines, which got published in 2013. In 2018, eminent psychiatrists from India, functional neurosurgeon representing The Neuromodulation Society and ISSFN came-together to deliberate on the current status, need, and legal aspects of NPD. In May 2018, Mental Health Act also came in to force in India, which had laid down the requirements to be fulfilled for NPD. In light of this after taking inputs from all stakeholders and review of the literature, the group has proposed the guidelines for NPD that can help to steer these surgery and its progress in India.

Treatment of Chronic Hepatitis C Infection with Direct Acting Antivirals in Adolescents with Thalassemia Major

Nagral A, Jhaveri A, Sawant S, Parikh NS, Nagral N, Merchant R, Gandhi M

Indian Journal of Paediatrics 2019;86:148-153.

OBJECTIVES:

To assess the efficacy and safety of sofosbuvir based generic Direct Acting Antivirals (DAAs) in treatment of Hepatitis C virus (HCV) in adolescents with thalassemia major (TM).

METHODS:

In this prospective single-arm study, 18 TM adolescents with Chronic Hepatitis C received sofosbuvir based generic DAAs. Patients with genotype 1 and genotype 3 received ledipasvir and daclatasvir respectively. Two cirrhotic patients with genotype 3 also received ribavirin.

RESULTS:

The mean age of patients was 15.1 y, of which 12 had genotype 1, 5 had genotype 3 and 1 had an undetermined genotype. Six patients had cirrhosis and 1 was treatment experienced. Sixteen of 18 patients (89%; 95% confidence interval 74 to 100%) achieved sustained virological response at 3 mo post completion of treatment with DAAs. There was a significant reduction in alanine aminotransferase levels ($p < 0.001$), HCV RNA load ($p < 0.001$) and ferritin levels ($p < 0.026$) at 3 mo post completion of treatment. There were no major adverse events associated with the use of DAAs.

CONCLUSIONS:

Generic DAAs are effective and safe in TM adolescents with HCV.

Hematological and Molecular Findings in the First Case of Hb J-Norfolk [HBA2: c.173G>A (or HBA1] in an Indian Patient.

Nair SB, Athalye AS, Madon PF, Das PS, Parikh FR

Hemoglobin 2018; 42: 333-335.

We here report a case of a 23-year-old female from Mumbai, Maharashtra, India who was detected to carry the α chain variant Hb J-Norfolk [HBA2: c.173G>A (or HBA1]. She had no clinical symptoms and was referred to us for routine investigations and screening. An abnormal peak was detected on both high performance liquid chromatography (HPLC) and capillary electrophoresis (CE) with a fast-moving band on cellulose acetate electrophoresis. There is no detailed study on the HPLC and CE pattern of this hemoglobin (Hb) variant, and therefore, this study will help in detecting and avoiding missing these variants during routine investigations and population screening. This is the first report of this variant in the Indian population.

CLIPPERS Spectrum Disorder: A Rare Pediatric Neuroinflammatory Condition
Nemani T, Udwadia-Hegde A, Keni Karnavat P, Kashikar R, Epari S.
Child Neurology Open 2019; doi: 10.1177/2329048X19831096.

CLIPPERS (chronic lymphocytic inflammation with pontine perivascular enhancement responsive to steroids) is a recently described, rare neuroinflammatory disorder diagnosed by clinical symptoms involving the brain stem with a distinct pattern on neuroimaging and a perivascular T-lymphocyte infiltrate on brain biopsy. It is a condition usually described in adults in the fourth to fifth decade. We report a case of 13-year-old Indian boy who presented with recurrent episodes of ataxia and diplopia with onset at 7 years of age. He was investigated extensively to rule out infective, neoplastic, autoimmune, and demyelinating conditions over a span of 6 years. The diagnosis of CLIPPERS was entertained on the basis of clinico-radio-pathological correlation. Treatment with steroids and steroid-sparing agents, particularly methotrexate, seems to provide a promising outcome. With very few cases in literature so far, reporting of a larger case series with pediatric onset may expand it to CLIPPERS spectrum disorder.

Biomarkers in Non-Small Cell Lung Cancers: Indian Consensus Guidelines for Molecular Testing
Prabhash K, Advani SH, Batra U, Biswas B, Chougule A, Ghosh M, Muddu VK, Sahoo TP, Vaid AK
Advances in Therapy 2019; doi: 10.1007/s12325-019-00903-y.

Novel molecular targets and promising targeted therapies have reshaped diagnostics in patients with advanced non-small cell lung cancer (NSCLC). Despite this progress, the implementation of molecular screening to identify predictive biomarkers in Indian clinical and pathology settings has been challenging due to operational and logistical constraints. This consensus guideline brings together medical oncologists, molecular pathologists and pathologists from India to provide a quick and competent reference for biomarker testing in NSCLC. The guideline summarizes the importance of targetable mutations in NSCLC such as epidermal growth factor receptor (EGFR), rearrangements in anaplastic lymphoma kinase and receptor tyrosine kinase encoded by ROS-1 gene, overexpression of programmed cell death ligand-1 and resistant EGFR mutations. It reaffirms recommendations from international working groups, discusses vulnerable pre-analytical procedures and provides a balanced review on the pros and cons of different diagnostic tests (immunohistochemistry, fluorescence in situ hybridization, polymerase chain reaction-based testing and next-generation sequencing). The document also provides an algorithm to aid diagnostic decision-making and a checklist to assess the quality of testing laboratories that will help the medical oncologists make an informed choice. Overall, these recommendations are based on evidence and clinical experience and will aid policymakers, oncologists, health care practitioners and pathologists who strive to implement molecular strategies and make informed decisions for improved care in NSCLC in India.Funding: AstraZeneca Pharma India Limited.

Toward New Classification Criteria for Juvenile Idiopathic Arthritis: First Steps, Pediatric Rheumatology International Trials Organization International Consensus.
Martini A, Ravelli A, Avcin T, Beresford MW, Burgos-Vargas R, Cuttica R, Ilowite NT, Khubchandani R, Laxer RM, Lovell DJ, Petty RE, Wallace CA, Wulffraat NM, Pistorio A, Ruperto N
The Journal of Rheumatology 2019;46:190-197.

BACKGROUND:

To revise the current juvenile idiopathic arthritis (JIA) International League of Associations for Rheumatology (ILAR) classification criteria with an evidence-based approach, using clinical and routine laboratory measures available worldwide, to identify homogeneous clinical groups and to distinguish those forms of chronic arthritis typically seen only in children from the childhood counterpart.

METHODS:

The overall project consists of 4 steps. This work represents Step 1, a Delphi Web-based consensus and Step 2, an international nominal group technique (NGT) consensus conference for the new provisional Pediatric Rheumatology International Trials Organization JIA classification criteria. A future large data collection of at least 1000 new-onset JIA patients (Step 3) followed by analysis and NGT consensus (Step 4) will provide data for the evidence-based validation of the JIA classification criteria.

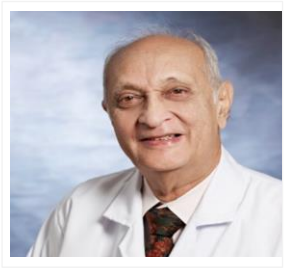
RESULTS:

In Step 1, three Delphi rounds of interactions were implemented to revise the 7 ILAR JIA categories. In Step 2, forty-seven questions with electronic voting were implemented to derive the new proposed criteria. Four disorders were proposed: (a) systemic JIA; (b) rheumatoid factor-positive JIA; (c) enthesitis/spondylitis-related JIA; and (d) early-onset antinuclear antibody-positive JIA. The other forms were gathered under the term "others." These will be analyzed during the prospective data collection using a list of descriptors to see whether the clustering of some of them could identify homogeneous entities

CONCLUSIONS:

An international consensus was reached to identify different proposed homogeneous chronic disorders that fall under the historical term JIA. These preliminary criteria will be formally validated with a dedicated project.

Legends of Jaslok



Dr Ajay Shridhar Chitnis, consultant chest physician, was associated with Jaslok hospital for over 35 years. He was born in Mumbai in 1944. His father was a general practitioner while his mother was a gynaecologist from Devlali. He completed his college from Devlali and graduated from Grant Medical College and Sir JJ Group of Hospitals, where he also completed his MD in General Medicine. He then went to the UK for further training for 5 years and completed his MRCP.

On returning to India Dr. Chitnis joined Jaslok as a full time chest consultant and subsequently became an honorary. He was associated only with Jaslok and was content with only one attachment throughout his career spanning almost four decades.

Dr. Chitnis was clearly a physician with exceptional clinical skills. His clinical teaching and bedside manners will long be remembered by all those who trained under him. He was a true gentleman, scruplously honest with all his patients and was never critical of anyone. He was a person who never took stress, was very diligent in his work and extremely time conscious. He was a person to whom all his subordinates, students and staff looked up to for advice.

He was a cricketer in his younger days and an ardent lover of all sports. He was fond of bird watching, a hobby which he developed with an intense and sustained interest. With is rich clinical experience, he has contributed a variety of scientific papers in national and international journals, in particular on asthma and small airway obstruction.

Dr Chitnis was very active till his sudden demise on 2nd July, 2018. Though it has been many months since he passed away, he will always be sorely missed by his family, colleagues and friends. May his soul rest in everlasting happiness and peace.

(Compiled by Dr. Rajiv. S. Mathur)