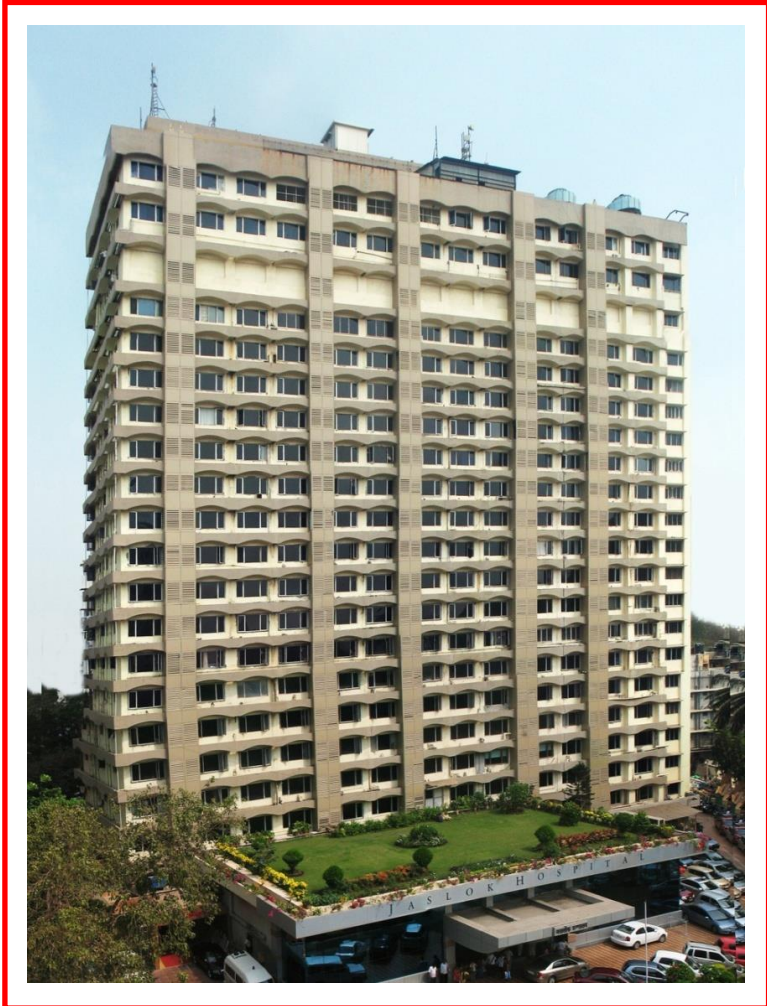




Jaslok Hospital & Research Centre, Mumbai

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From the Managing Trustee's Desk

From the time of the great Indian surgeon, Shushruta till today, medicine, has made great strides. The basis of that progress is curiosity which leads to research. The rewards of research are so great that they form the incentive for further research, and so it goes on.

All that you see around you, is the result of persistent and continuing research of so many before you. The very latest - robotics, key-hole surgery, laser rays as surgical tools, the wonderful state of the art CT, MRI and PET scanners - are all the result of vigorous and tireless research to reach this state of perfection. Imagine for a moment that you have to practice medicine without all of these methods, equipment and diagnostic procedures, and you will all be motivated to conduct research to improve and invent newer and better methods for the convenience and benefit of both doctors and patients.

I am extremely grateful to be associated with this medical institute and therefore privy to all things connected with the modern practice of medicine and surgery. Jaslok has always encouraged research. I would like to share this enthusiasm with you and urge all our young doctors to take up research. As you know, we have all the facilities in place including specially delegated guides, an ethics committee, a vast library, on-line facility, etc. for research. So let us make a small effort and start on the path which, who knows, might lead to great discoveries of the 21st century!

Mrs. Kanta Masand

Editorial

The Joys of Collaborative Research

Research is rarely a solitary activity. Almost always, it involves collaboration, the sharing of ideas, information and sometimes resources as well. This has the potential to be an enjoyable and fulfilling experience.

Collaborative research involves accommodating several points of view in terms of research questions, methodologies, interpretation of analyses, choice of publications and the order of authorship. It helps to have a team leader who is known to be fair and is respected by all the team members. He or she can take proactive steps to create a happy research culture and also facilitate conflict resolution within the team.

Dr. N.H. Wadia who has been associated with our institution since its inception is one such leader. He has been an academician of the highest order, deftly balancing clinical practice, teaching and research in a harmonious manner that has been a joy to behold and an inspiration for many of us. While featuring him, we begin a series on the legends of Jaslok so that they continue to be role models for all of us.

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

Research News

1. Dr. Prochi Madon was awarded the first prize in free papers (Embryology) for 'PGD of chromosome anomalies and single gene disorders at Jaslok Hospital' at the 21st National Conference of the Indian Society of Assisted Reproduction in Indore. The co-authors were Arundhati Athalye, Dattatray Naik and Firuza Parikh.
2. Dr. Vishal V. Ramteke from the Nephrology department and Dr. Omar S. Akhtar from the Urology department were awarded the Amar Gandhi Foundation Award: The Best Resident Award at Jaslok Hospital & Research Centre for the year 2015.
3. Hrushikesh Lele, pursuing his Ph.D. with Dr. Firuza Parikh was awarded the first prize in the poster presentation for his presentation, 'A higher pick up of cytogenetic abnormalities of B-CLL by FISH on immunomagnetically sorted CD20+ cells and use of CpG oligonucleotide plus interleukin-2 stimulation for karyotyping' at the 39th Annual Conference of the Mumbai Hematology Group in March 2016. The co-authors were Arundhati Athalye, Prochi Madon, Abhay Bhawe and Firuza Parikh. The research is reported for the first time in world literature.

Abstracts

Indian National Association for Study of the Liver (INASL) guidance for antiviral therapy against HCV infection in 2015

Puri P, Anand AC, Saraswat VA, Acharya SK, Dhiman RK, Sarin SK, Singh SP, Chawla YK, Aggarwal R, Amarapurkar D, Arora A, Dixit VK, Sood A, Shah S, Duseja A, Kapoor D, Shalimar, Madan K, Pande G, Nagral A, Kar P, Koshy A, Puri AS, Eapen C, Thareja S
Journal of Clinical Experimental Hepatology 2015;5:221-38.

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

Indian Council of Medical Research consensus document for the management of colorectal cancer

Sirohi B, Shrikhande SV, Perakath B, Raghunandharao D, Julka PK, Lele V, Chaturvedi A, Nandakumar A, Ramadwar M, Bhatia V, Mittal R, Kaur T, Shukla DK, Rath GK

Indian Journal of Medical and Paediatric Oncology 2014;35:192-6.

EXECUTIVE SUMMARY

- This document is based on consensus among the experts and best available evidence pertaining to the Indian population and is meant for practice in India.
- Evaluation of a patient with newly diagnosed colorectal cancer (CRC) should include essential tests: A complete colonoscopy with biopsy, imaging (for colon cancer: Contrast-enhanced computed tomography (CECT) scan of the chest, abdomen and pelvis and for rectal cancer: Magnetic resonance imaging (MRI) of the pelvis, or an endoscopic ultrasound (EUS), with a chest and abdomen CECT), complete blood counts, liver and kidney function tests, carcinoembryonic antigen (CEA) and carbohydrate antigen 19.9 (CA19.9).
- For patients with localized colon cancer, resection is the treatment of choice, with consideration given to adjuvant chemotherapy for the patient with stage III and high-risk Stage II cancers.
- In patients with early rectal cancer (T1/T2, N0), surgery is the treatment of choice.
- Patients with locally advanced rectal cancer (T3/T4, N1, circumferential resection margin (CRM) threatened or involved) benefit from neoadjuvant therapy. Short course radiotherapy can be given if the CRM is not threatened. Others should undergo long course chemoradiotherapy. Adjuvant therapy is given to all patients receiving neoadjuvant therapy.
- Patients with potentially resectable metastatic liver limited disease should undergo synchronous or staged metastatectomy, along with neoadjuvant and adjuvant chemotherapy.
- Nonresectable metastatic disease must be assessed for chemotherapy versus best supportive care on an individual basis.
- Clinical examination and serum tumor markers are recommended at each follow-up visit, with imaging only done when either is abnormal or rising. Colonoscopic surveillance is also recommended for these patients.

Renal transplantation in HBsAg -ve recipient from a HBsAg +ve living donor

Vishal V. Ramteke, M.M. Bahadur, Chandan L. Chaudhary

Indian Journal of Transplantation 2014;8:121-3.

Renal transplant from a HBsAg positive living donor to a negative recipient is not routinely done due to risk of transmission of hepatitis B infection following transplantation. Such donors are usually rejected which further reduces the donor pool. We report a case of HBsAg negative recipient transplanted with a kidney from HBsAg positive donor who is free from chronic infection on one year follow up. This to best of our knowledge is first reported case in India.

Isolation, characterization and application of BCR-ABL-ve mesenchymal stem cells derived from peripheral blood of Chronic Myeloid Leukemia (CML) in enhancing potentiality of bone marrow transplantation in CML patients

Pravin D Potdar, Navjeet Kaur Lotey

International Journal of Stem Cell Research. 1(1):

DOI:<http://dx.doi.org/10.16966/ijscr.101>.

Chronic Myeloid leukemia (CML) is a disorder causing uncontrolled growth of myeloproliferative blast cells. Tyrosine kinase inhibitors are not really useful in advanced stages and have their own side effects, reactions and resistance as well. Till date, CML can be fully cured only by bone marrow transplantation (BMT) which has its own limitations and thus need further studies to increase better survival of CML patients by this procedure. Our lab at Jaslok Hospital has been working on studying and characterizing mesenchymal stem cells in various types of hematological malignancies. We came up with a concept of isolating and characterizing mesenchymal stem cells (MSCs) from peripheral blood of a CML patient which can be used in combination with Bone Marrow Transplantation in the same CML patient. Our study has shown that the stem cells derived from peripheral blood of CML patient were found to be BCR/ABL-*ve*. We designated this cell line as a “BCR/ABL-*ve*” cell line. Molecular characterization of these cells further confirmed their Mesenchymal phenotypes with distinct expression of CD105, CD13 and CD73 genes. Interestingly these cells also expressed pluripotency genes such as OCT4 and NANOG and cytokines i.e. IL6 and TNF α . We further confirmed the normal phenotype of BCR/ABL-*ve* MSCs by localizing expression of H-Ras, Rb, P53, P16, P21, and EGFR and Ki67 cancer related proteins in these cells by immunofluorescence Microscopy and by *in vitro* transformation assay. Thus, we suggest that these normal BCR/ABL-*ve* MSCs derived from CML patient’s peripheral blood can be used in addition to BMT procedure for a better recovery of CML disease in near future.

Non-Hodgkins Lymphoma involving multiple cardiac chambers with skeletal muscle involvement in a Hepatitis C positive patient

Behranwala A, Bharat Shivdasani, Nihar Mehta, Amit Chandan

Journal of Vascular Medicine and Surgery 2015;3:191.

Primary cardiac lymphomas are rare and involvement of multiple cardiac chambers is not common. It usually invades primarily the right atrium, followed by the right ventricle, the left ventricle, and finally the atrial septum. Skeletal muscle involvement is also rare. FDG PET Scan is useful in diagnosis and in determining the disease extent, site for biopsy and its response to treatment.

We present a rare case of a Primary Cardiac Lymphoma in a Hepatitis C positive male which developed 3 years after he underwent CABG Surgery, which involved the right atrium, inter-atrial septum and left atrium and prolapsed across the tricuspid valve into the right ventricle. Additionally there was involvement of the Internal Oblique muscle that was proven on biopsy. FDG PET CT Scan was a useful guide to determine the extent of involvement, select the site of biopsy and evaluate the response to chemotherapy.

Blau syndrome: cross-sectional data from a multicentre study of clinical, radiological and functional outcomes

Rosé CD, Pans S, Casteels I, Anton J, Bader-Meunier B, Brissaud P, Cimaz R Espada G, Fernandez-Martin J, Hachulla E, Harjacek M, Khubchandani R, Mackensen F, Merino R, Naranjo A, Oliveira-Knupp S, Pajot C, Russo R, Thomée C, Vastert S, Wulffraat N, Arostegui JJ, Foley KP, Bertin J, Wouters CH.

Rheumatology (Oxford) 2015;54:1008-16.

OBJECTIVE: To report baseline articular, functional and ocular findings of the first international prospective cohort study of Blau syndrome (BS).

METHODS: Three-year, multicentre, observational study on articular, functional (HAQ, Childhood HAQ and VAS global and pain), ophthalmological, therapeutic and radiological data in BS patients.

RESULTS: Baseline data on the first 31 recruited patients (12 females and 19 males) from 18 centres in 11 countries are presented. Of the 31 patients, 11 carried the p.R334W NOD2 mutation, 9 the p.R334Q and 11 various other NOD2 missense mutations; 20 patients were sporadic and 11 from five BS pedigrees. Median disease duration was 12.8 years (1.1-57). Arthritis, documented in all but one patient, was oligoarticular in 7, polyarticular in 23. The median active joint count was 21. Functional capacity was normal in 41%, mildly impaired in 31% and moderate-severe in 28% of patients. The most frequently involved joints at presentation were wrists, ankles, knees and PIPs. On radiographs, a symmetrical non-erosive arthropathy was shown. Previously unknown dysplastic bony changes were found in two-thirds of patients. Ocular disease was documented in 25 of 31 patients, with vitreous inflammation in 64% and moderate-severe visual loss in 33%. Expanded manifestations (visceral, vascular) beyond the classic clinical triad were seen in 52%.

CONCLUSION: BS is associated with severe ocular and articular morbidity. Visceral involvement is common and may be life-threatening. Bone dysplastic changes may show diagnostic value and suggest a previously unknown role of NOD2 in bone morphogenesis. BS is resistant to current drugs, suggesting the need for novel targeted therapies.

Legends of Jaslok



Dr. Noshir Hormusjee Wadia is an international legend in Neurology. He was born in 1925 and joined the Grant Medical College, Mumbai in 1943. After completing his MD Medicine and MRCP, he worked in London till 1957. He next joined the Grant Medical College as an Honorary Assistant Neurologist. In 1968, Dr. Wadia was appointed as the Head of the Neurology Department of Grant Medical College and J.J. Group of hospitals, a post which he held for 25 years. From the inception of Jaslok in 1973, he has been the Director of Neurology.

Dr. Wadia has taught undergraduate and postgraduate students the nuances of Neurology for over six decades. He was the first to describe two diseases: a heredo-familial spinocerebellar degeneration with slow eye movements (later termed as the Wadia subtype of Spinocerebellar Ataxia Type 2) and a polio-like disabling paralysis associated with epidemic conjunctivitis (later isolated as Enterovirus 70). He was also the first to describe several diseases in India such as myelopathy of congenital atlanto-axial dislocation, atypical features of acoustic neuroma, tuberculous spinal meningitis, Wilsons disease, multiple sclerosis in Parsees, venous signs in cerebral angiomas, disseminated cysticercosis and several others. He has over 130 publications and has authored the book 'Neurology Practice: An Indian Perspective'.

Dr. Wadia has received several accolades and awards such as the Certificate of Appreciation for Services to Neurology by World Federation of Neurology in 1993, the first Birla National Award for an Outstanding Practicing Clinician in Modern Medicine in 1999, the Lifetime Achievement Award in Medical Excellence by Harvard Medical International and Wockhardt Ltd. amongst others. He was awarded the Padma Bhushan by the Government of India in 2012.

Research Events

1) Apex Committee for Research (ACR):

The ACR has during the course of the year met all of its annual targets. Other than the launch of the eBulletins, these include: incentivising research for residents, evaluation of past research of the hospital, the appointment of a statistician, the creation of a research budget, research workshops for residents and nurses, the creation of best teacher, best researcher, best resident awards, the creation of a mentorship committee, the creation and launch of SOPs for various aspects of research, collating data on dissertations, research open houses and the promotion of nursing research. Additionally, the ACR has initiated the integration of electronic medical records with research requirements and the creation of outcome measures for its effectiveness.

2) Research Workshops:

- a) 'Achieving Perfect Balance: Health, Happiness, Study, Work, Research' by Dr. Rajesh Parikh on 11/01/2016 for the nursing staff.
- b) 'The Brain's Inner GPS: Nobel Prize for Medicine & Physiology 2014' by Ms. Maherra Khambaty on 16/02/2016 for the nursing staff.
- c) 'Making Time for Research: Studying for & Excelling in the DNB Exam' by Drs. Nihar Mehta and Rajesh Parikh on 30/03/2016.

Editorial Board:

Drs. Tarang Gianchandani, Rajesh Parikh, Fazal Nabi, Nihar Mehta, Prochi Madon & Pravin Agrawal.