DEALING WITH DENGUE
A disease that is continuously threatening the nation

REVERSE SHOULDER ARTHROPLASTY
A solution for difficult shoulder pain and severe rotator cuff deficiency
Dear Readers,

The monsoon rains are here which indeed is a respite from the summer heat but it also brings along monsoon related diseases which we all should be cautious about. Keeping this in mind, the cover story this month is on Dengue, a disease which is reaching epidemic proportions in many parts of our country. The story provides useful information for patients along with ways and means to prevent the spread of the disease.

You will also find other equally interesting and informative pieces that include a case of Reverse Shoulder Arthroplasty which was indeed a meticulous dissection leading to a successful surgery.

We are pleased to inform you that we have entered into a strategic agreement with the Republic of Nauru. The bilateral agreement aims to set up a platform for mutual sharing of medical, scientific and educational collaborations that will further help to strengthen the healthcare system in Nauru. You can read the details about the pact in “BLK Expands its Horizon” section.

The feedbacks and suggestions we have been getting from all of you are invaluable for us to make BLK Pulse a lot more meaningful and interesting. We hope we will continue to receive them as regularly as we are receiving the contributed articles at our email editorial@blkhospital.com.

Wishing you all great health.

Naresh Kapoor
Executive Director
BLK Super Speciality Hospital
Reverse Shoulder Arthroplasty
A solution for difficult shoulder pain and severe rotator cuff deficiency

Shoulder pain is a very common problem today. More often than not, it is left untreated and in many cases misdiagnosed as cervical pain or frozen shoulder. Because of extreme range of movement of shoulder and anatomy, the problem usually is asynchronous - movements of rotator cuff muscle and rotator cuff deficiencies. Rotator cuff tear usually are managed with Arthroscopic repair but when there is gross deficiency, a special surgery of Reverse Shoulder Replacement is needed.

THE CASE
The patient, Mrs. Latika Wadhwa, 67 year old female, had mild pain in her right shoulder for the past 8-10 years. She was treated by doctors with medications, injections and physiotherapy at various places but couldn't get relief and was having sleepless nights due to unbearable pain. When the patient visited Dr. Pradeep Sharma, Director & Head, BLK Centre for Orthopaedics, Joint Reconstruction & Spine Surgery, she was examined thoroughly and underwent X-Rays and MRI on her right shoulder. On close examination, complete destruction of humeral head and gross deficiency of rotator cuff was detected.

THE PROCEDURE
The team at BLK decided for Reverse Shoulder Arthroplasty, a special implant for rotator cuff deficiency in which pivot of shoulder joint is shifted laterally to increases the lever arm for abduction. This special implant moves on the power of deltoid muscle. Preserving axillary nerve is crucial while approaching and doing Shoulder Joint Replacement. Anterior deltopectoral approach was taken and after meticulous dissection Shoulder Replacement was performed, reversing the glenoid cup to humerus and head on glenoid side.

THE RESULT
The entire procedure was successful and the next day the patient was able to do movements in 45 to 90 degree range without experiencing much pain. Physiotherapy for rehabilitation was started immediately and the patient was discharged on the third post-operative day. At present, the patient is able to do all functional movements with ease and without any pain.

The Voice Lab
BLK offers state-of-the-art management of voice disorders

The Voice Lab at BLK Super Speciality Hospital is a state-of-the-art and advanced suite for the diagnosis and ambulatory procedures related to voice disorders.

The suite consists of:
- Laryngeal Endoscopy, using flexible or rigid Hopkin’s endoscopes
- Flexible Nasopharyngolaryngoscope with chip on tip technology
- Stroboscopy

Videoendoscopy is a special method to visualise vocal fold vibration. It uses synchronised, flashing light passing through a flexible or rigid telescope. The flashes of light from stroboscope are synchronised to the vocal fold vibration at a slightly slower speed, allowing the examiner to appraise vocal fold vibration during sound production in what appears to be slow motion.

Minute vocal fold lesions which are hitherto not appreciable by normal mirror / videolaryngoscopic examination are easily diagnosed, enabling the laryngologist to plan treatment accordingly.

Following cases presented with voice complaints and underwent Stroboscopic examination at BLK’s Voice Lab:

CASE - I
The first patient, singer by profession, presented with a diagnosis of vocal nodules and was advised surgery by an ENT Surgeon. On Stroboscopy, he had severe Laryngo-pharyngeal reflux and prominent vocal processes of the arytenoid processes bilaterally. This was giving a false picture resembling vocal nodules which led to the misdiagnosis. The patient was started on anti-reflux treatment for two months following which his voice was restored without the need for any surgery.

CASE - II
This patient had complaints of foreign body sensation for 6 months. Stroboscopy examination revealed a cyst on the left aryepiglottic fold, although the vocal cords were normal. He underwent a laser excision of the cyst which relieved his symptoms post-operatively.

CASE - III
This patient had hoarseness for the past 6 months. On examination a large polyp was seen rising from the left vocal cord. Stroboscopy helped to accurately define the site of origin of the polyp, which in this case was the free margin of the cord. This patient underwent laser resection of the polyp under general anaesthesia.

Many ambulatory procedures including Laryngeal Biopsies, Injection Laryngoplasty, Botox injection for Spasmodic Dysphonia are now done at ‘The Voice Lab’ of BLK Super Speciality Hospital.
Dealing With Dengue
A disease that is continuously threatening the nation

Dengue is a mosquito-borne viral disease that has seen rapid spread in recent years. It is a fatal disease caused by female mosquitoes mainly of the species known as Aedes aegypti. This mosquito transmits dengue virus along with other deadly infections such as Chikungunya, Yellow Fever and Zika.

India saw an unexpected surge in cases of dengue in the last one year with Delhi being the worst hit city with over 16000 documented cases of dengue fever. The year 2016 isn’t expected to be any better and this has become a cause of concern for the country.

TRANSMISSION
Aedes aegypti mosquito is the primary vector of dengue. The virus is transmitted to humans through the bites of infected female mosquitoes. Infected symptomatic or asymptomatic humans are the main carriers and multipliers of the virus, serving as a source of the virus for uninfected mosquitoes. Patients who are already infected with the dengue virus can transmit the infection for 4-5 days and maximum of 12 days via Aedes mosquitoes after their first symptoms appear.

CHARACTERISTICS
Dengue fever is a severe, flu-like illness having symptoms of high fever (40°C / 104°F), severe headache, pain behind the eyes, muscle and joint pains, nausea, vomiting, swollen glands or rash. Its symptoms usually last for 2-7 days, after an incubation period of 4-10 days when bitten by an infected mosquito. Severe dengue which is also known as Dengue Haemorrhagic Fever, has become a leading cause of hospitalization and death among children. It is a potentially deadly problem that causes plasma leakage, fluid accumulation, respiratory distress and severe bleeding or organ impairment. Generally, warning signs occur 3-7 days after the first symptoms in conjunction with a decrease in temperature (below 38°C / 100°F), including severe abdominal pain, persistent vomiting, rapid breathing, bleeding gums, fatigue, restlessness and blood in the vomit. The next 24-48 hours of the critical stage can be lethal; proper medical care is needed to avoid complications and risk of death.

TREATMENT
As of now there is no specific cure for dengue fever. Patients who are able to take adequate oral fluids should be given the same liberally. Those patients with a normal sensorium, good peripheral circulation, bounding pulse, who are able to take fluids orally and have adequate urine output are advised to take adequate amounts of oral fluids and Paracetamol. They should be reviewed at least daily for disease progression by getting their platelet and PCV test checked.

Most clinicians face problems at the time of admission as unnecessary admissions due to pressure from the patients’ family puts avoidable burden on already constrained health resources. To deal with such complications, BLK Super Speciality Hospital has the provision to put additional beds whenever necessary. The Hospital has enhanced the capacity of ER to attend patients waiting for admission. More number of doctors, nursing and paramedical staff are posted in ER to minimise response time. On admission, patients are immediately screened for low platelet counts and are then attended as per the clinical need. Patients’ family members are thoroughly counselled in order to minimise panic reactions and also to cooperate for early discharge. Further, the Hospital is well equipped with laboratories to ensure minimal TAT and more cycles of reporting for the reports of RLESA and other tests in order to diagnose dengue in minimal possible time.

For severe dengue, medical care by physicians and nurses experienced with the effects and progression of the disease can save lives - decreasing mortality rates from more than 20% to less than 1%. Maintenance of the patients’ body fluid volume is critical specifically during dengue care. Avoid giving aspirin and other NSAIDs like Ibuprofen, Diclofenac to patients as intake of such medicines might cause severe bleeding. It is advisable to take Paracetamol to relieve muscle and joint aches, fever and headaches in such patients. General guidelines for platelet transfusion in patients with thrombocytopenia are to give prophylactic transfusion if the recent platelet count is less than 10000 / cmm in afibrile patients and less than 20000 / cmm in febrile patients and therapeutic transfusion if platelet count is less than 5000 / cmm in patients with active bleeding.

IMMUNIZATION
In late 2015 and early 2016, the first dengue vaccine, Dengvaxia (CYD-TDV) by Sanofi Pasteur, was registered in several countries for use in individuals in the age group of 9-45 years living in endemic areas. The Strategic Advisory Group of Experts (SAGE) on immunisation reviewed CYD-TDV in April 2016 and recommended countries to consider introduction of the vaccine in geographic settings (national or subnational) with high endemicity.
Limb Preservation in an adolescent with Bone Sarcoma of Upper Extremity
BLK yet again performs a successful Limb Salvage Surgery for Bone Sarcomas

Osteosarcoma is the most common primary malignant tumour arising from bones. It can be often seen in children and adolescents, usually affecting the extremity bones around the knee joints. The treatment of Osteosarcoma has evolved from the traditional approach of amputation to a more conservative yet radical approach including Chemotherapy and Limb Salvage Surgery (LSS). This has been made possible due to advances in imaging including MRI and PET scan, acceptance of newer Chemotherapy drugs and availability of advanced, robust and newer modular processes for replacement of affected bone.

THE CASE
A 14-year-old young boy was admitted to BLK Super Speciality Hospital presented with recent onset pain and swelling in the right upper arm near the shoulder joint. After X-ray and MRI scan, a tumour involving the upper end of humerus (upper arm bone) and extending till mid shaft was found. Needle biopsy from the lesion was positive for Osteosarcoma. PET CT Scan was also done to rule out distant metastasis. As per standard protocol, he was initially treated with three cycles of pre-operative Chemotherapy under the guidance of Dr. Pankaj Barman, Consultant, Medical Oncology, BLK Cancer Centre. Post Chemotherapy, Limb Salvage Surgery was planned for the patient.

THE PROCEDURE
The Tumour involving the bone of the arm was so extensive that Dr. Ashish Goel, Senior Consultant, Surgical Oncology, BLK Cancer Centre felt that the elbow joint was also needed to be removed to get adequate free margins. Dr. Ishwar Bohra, Consultant, BLK Centre for Orthopaedics, Joint Reconstruction & Spine Surgery, accomplished the replacement of the bony defect with a total humerus and elbow joint implant. Dr. Sandeep Mehta, Additional Director, Surgical Oncology, BLK Cancer Centre, then reconstructed the deficiency by safeguarding vital blood vessels, nerves and repositioned muscles so as to enable good soft tissue cover and movements to the new implant.

THE RESULT
All patients after Limb Salvage Surgery require vigorous Physiotherapy for the next 3-6 months in order to regain normal limb function. In this case, the patient also subsequently completed post-surgery Chemotherapy for 2 more months. He had an uneventful recovery with restoration of near normal function and good quality of life. He has now started attending his school as well.

Left Atrial Appendage Occlusion to prevent recurrent stroke in Atrial Fibrillation

Non-valvular chronic Atrial Fibrillation (AF) is a common arrhythmia among the elderly population. Long-term anticoagulation is mandatory in these cases of AF to prevent recurrent cerebrovascular stroke resulting from thromboembolic episodes arising from the left Atrial Appendage.

Conventionally, Vitamin K antagonist, Warfarin or newer anticoagulants such as Dabigatran, Rivaroxaban and Apixaban are given to prevent thromboembolic phenomenon causing stroke. Warfarin usage requires stringent regular monitoring of prothrombin time and INR in order to achieve a trade off between optimal anticoagulation and fatal bleeding. Besides, some elderly patients are unable to tolerate anticoagulation due to excessive bleeding risk.

In order to circumvent these issues with anticoagulation, an alternative treatment modality is to seal the noidus of clot formation in the left Atrial Appendage in Atrial Fibrillation using an Amulet TM Amplatzr device (St. Jude, USA) or Watchman device (Boston Scientific).

In one of the rare pioneering procedures in India, we deployed Amplatzr Cardiac Plug in two eligible cases, which had recurrent episodes of CVA with underlying chronic AF and were intolerant to anticoagulation. One such case had Ulcerative Colitis, lower GI bleed and also had a Colostomy done for Colon Carcinoma precluding use of any anticoagulation. The LA Appendage device was deployed through the right femoral vein across transseptal puncture and into LA Appendage. It is a self-positioning Nitinol device, which is mounted on top of a long cable and detached into the LA Appendage upon satisfactory positioning.

Both the patients have done well without any anticoagulation and are free from further episodes of stroke. Watchman device is recently approved in India by DGCI. It has been successfully used in the case of famous Hollywood actor and Ex-Governor of California, Mr. Arnold Schwarzenegger, who had suffered a TIA following Atrial Fibrillation, a year and half ago.

In the series of pioneering cardiac procedures being done at the BLK Heart Centre like TAVI, LVAD and newer Endovascular Stenting for aortic aneurysm, the LA Appendage Occlusion is another landmark achievement in our journey to excel on national and international arena providing world-class cutting-edge technology to cardiac patients.
BLK Expands Its Horizon

BLK Super Speciality Hospital enters into a strategic agreement with Government of Nauru

BLK Super Speciality Hospital has recently signed a strategic agreement with the Republic of Nauru (RoN) Hospital under the Ministry of Health and Medical Sciences (MOH & MS). The pact aims to help set up a platform for mutual sharing of medical, scientific and educational collaborations that will further help to strengthen the healthcare system in Nauru through RoN Hospital, which is the only healthcare facility in the country.

The collaboration was signed by Mr. Naresh Kapoor, Executive Director, BLK Super Speciality Hospital and Mr. Valdon Dowiyogo, Hon'ble Minister, Health and Medical Sciences, Government of Nauru. The two institutions in particular will help each other in capacity building for healthcare professionals and facilitate the transfer of knowledge and skills through highly specialised pool of eminent doctors and world class infrastructure.

“His MoU will pave the way for further cooperation and mutual understanding between the two countries and improve healthcare facilities for the people of Nauru. I am certain that the pact will help to strengthen the overall healthcare system at Nauru. The partnership will set up a platform of mutual sharing and collaboration to enhance the services currently being provided at RoN Hospital.”

Mr. Valdon Dowiyogo
Hon’ble Minister
Health and Medical Sciences, Government of Nauru