SAVING FACE VALUE
How BLK Cancer Centre successfully conducted a 12 hour surgery to remove a tumour from the face of a patient

DOCTOR REMOVES TENNIS BALL SIZE ANEURYSM
4 hour long challenging minimally invasive brain surgery using flow diverter technique
First of all, I must thank each and every one of you at BLK for extending such a warm welcome to our first ever edition of the BLK Pulse. Seeing the overwhelming response and the readiness with which many of you have offered to contribute articles, we have decided to make BLK Pulse a monthly newsletter.

Our cover story in this edition is about a challenging operation involving a team of skilled doctors at the BLK Cancer Centre who put in their efforts tirelessly for 12 continuous hours, retaining the original face of the patient after successfully removing the tumour even though the operation involved removing the skull bone and major facial bones.

I am also delighted to share with you that we have recently signed an MOU with the Republican Research Center of Emergency Medicine, an Association of Emergency Physicians in Uzbekistan, to establish cultural, educational, scientific and medical cooperation in various spheres. This edition carries other such achievements we have garnered in the last one month.

As always, the editorial team will be happy to receive your articles and will look forward to get your continued support. You can write to our editorial desk at: editorial@blkhospital.com. To those who have offered valuable suggestions on how to make BLK Pulse better, we cannot thank you enough while hoping that you will continue to share your views and suggestions for subsequent editions as well.

I am sure you will enjoy this edition of BLK Pulse as you did the first one.

Wishing you all great health.

FROM THE ED’S DESK

Naresh Kapoor
Executive Director
BLK Super Speciality Hospital
THE CASE

Aneurysms larger than 2 cms (1 inch) are rare, and are called “giant aneurysms,” but the size of Sanaa’s aneurysm was 7 cms which is extremely huge and risky to perform the surgery considering vital areas in the brain. 3D imaging is helping in performing complex cases with ease” said Dr. Vikas Gupta.

Sanaa had been operated in Turkey earlier, which failed. Her aneurysm was previously treated with stent-assisted coil embolization in 2007. Unfortunately, it was not adequate and seven years down the line, the aneurysm (balloon) recurred in much larger form and shape. On 3D imaging and angiogram done at BLK Super Speciality Hospital, it was found that the microsurgical option was too risky due to its giant size and location near the artery, which branches to the eyes. Hence, bypass of the main artery was ruled out.

THE PROCEDURE

3D imaging showed that in her previous procedure the aneurysm was coiled with the help of an intracranial stent, which was difficult to remove. So a new option was explored to stop the aneurysm from growing further by stopping the flow of blood towards it. A newer form of technique using Max Merlin devise to divert the flow of blood was mounted on the bulge of the aneurysm. This resulted in diverting the blood flow away from the bulge.

THE RESULT

The entire procedure was done successfully and the very next day Sanaa’s eye movements and vision improved and she was discharged after a week.

Dr. Vikas Gupta claims that Max Merlin devise, which is a balloon mounted flow diverter has been used to correct aneurysm of this size for the first time in the country, with a very successful outcome.

52 year old Sanaa Ali (seated) after her successful surgery at BLK Super Speciality Hospital

Dehradun boy undergoes unique surgery of 'Leaking Kidney'
Arjun suffered from trauma and Leaking Kidney for 5 years

A t an age when boys sweat it out on cricket fields, Arjun lived with the agony of tubes and bags around him. Son of a railway employee, he had undergone two Kidney Transplants in the last 5 years. However, a leaking kidney - or urine leakage from the ureter which connects the urinary bladder - left him troubled. A team of 3 surgeons led by Dr. H. S. Bhatyal, Advisor & Senior Consultant, Urology, Andrology & Renal Transplant, BLK Centre for Renal Sciences and Kidney Transplant, BLK Super Speciality Hospital, performed a special surgery called Boari Flap Reconstruction - creating a new tube, and six months later, doctors have declared him fit.

THE CASE

Arjun came to BLK Super Speciality Hospital after two failed Kidney Transplants and a hurriedly done stenting. After his right Kidney Transplant in 2012, he developed graft rejection with renal failure and was put on dialysis. Another transplant of the left kidney took place in 2014, which also got rejected resulting in blood collection around the kidneys, acute pain and swelling. Arjun reached the hospital with swollen abdomen, urine bags and tube around.

THE PROCEDURE

Clinical evaluation was done, using multiple ultrasounds, CT Scans and imaging. Firstly, under ultrasound guidance, tube was inserted into the kidney to drain out urine through a procedure called Percutaneous Nephrostomy (PCN). After that, doctors had to wait and monitor the kidney function till cooling off period of three months. Under this, tissues were allowed to heal and get ready for a challenging reconstructive surgery.

Dr. Bhatyal and his team managed to do a reconstruction of the 2nd transplanted kidney by making a long tube of 10 cm from urinary bladder and joining it directly to the transplanted kidney. For this, a flap was raised from the bladder to construct a tube and take it up to the kidney. A 12 cm tube was created to connect the kidney. This is called Boari Flap Reconstruction.

THE RESULT

Arjun has recovered well with a good functioning transplanted kidney and is free of any external tube and urine leak. He is now living an active, happy and normal life.
A n adorable father of three, suffering from a rare nasal tumour, which threatened to wreck his face, was pulled out of this crisis and given back his original look, in what the doctors call as massive and miraculous reconstructive surgery. Doctors at BLK Super Speciality Hospital got rid of the tumour - but this had to be done only after removing the skull bone and major facial bones. The face was reconstructed subsequently, retaining the original facial structure, and a new lease of life was given to Mr. Rajendra Prasad Aggarwal. A team of skilled doctors at the hospital comprising surgeons from departments of Surgical Oncology, Neurology, Reconstructive Surgery and Anaesthetist achieved this feat which took over 12 hours to remove and then reconstruct the face, retaining its originality.

THE CASE

Mr. Aggarwal of Rohini, New Delhi was admitted to the hospital last year with complaints of bleeding from nose, headache, mild fever, post-nasal discharge, swelling in the face area and eye enlargement. Dr. Kapil Kumar, Director - BLK Cancer Centre, HOD - Surgical Oncology, BLK Super Speciality Hospital said, “MRI and biopsy revealed a rare type of cancer caused by secretory glands, in medical terms called Adenoid Cystic Carcinoma. It was also found that the cancer was spread across the face making it very difficult in deciding where to begin the treatment.”

THE PROCEDURE

After consultation with other team members involving Reconstructive Plastic Surgeon, Head & Neck Surgeon, Neurosurgeons and Anaesthetist, the team decided to approach the tumour from both above and below the face. This gave better exposure, thereby ensuring complete tumour removal without producing damage to the brain, nerves and other major structures. Adding further, Dr. Tapaswini Pradhan, Head & Neck Onco-surgeon, Senior Consultant, Surgical Oncology, BLK Super Speciality Hospital, said that “the resection involved removal of part of the maxillary bone, nasal bones, orbital bones and the anterior skull base areas together with the tumour in one piece, which left behind a gaping hole communicating between brain, oral and nasal cavities. This was a high risk surgery as it involved increased chances of brain infection, bleeding and leakage of cerebrospinal fluid.”

“The approach to the tumour was made through first incision over the face and the second over the scalp. Part of the skull bone was initially removed to enter the brain, which was then replaced back and fixed with screws at the end of the procedure,” informed Dr. Vikas Gupta, Director & HOD, Neurosurgery & Interventional, Endovascular Neurosurgery, Centre for Neurosciences, BLK Super Speciality Hospital. Once the deadly tumour was removed, it was time to reconstruct his face and he was kept under specialized care of intensivist, added Dr. Kapil Kumar.

The final phase involved ‘plugging all the gaps and holes’ and giving a shape to the lost contour of the face. The case was then taken over by Dr. Sandeep Mehta, Onco-Reconstructive Surgeon, Additional Director, Surgical Oncology, BLK Super Speciality Hospital. As per Dr. Sandeep Mehta, “The reconstruction of these kinds of defects is challenging in order to maintain the original face.”

In Mr. Aggarwal's case, the cheekbones were reconstructed using biopore, a linear, high-density polyethylene bio-material which is biocompatible and porous. This is available in sheets which are carved in the required dimensions and shape to fit the defect properly. Besides using it for reconstruction of the cheekbones, it was also used to form the nasal bone and the walls of the orbit in which the eye globe was positioned at the level of the opposite eye, thereby retaining a functional eye. The contouring with this material has been so aptly performed, that it may actually be difficult to distinguish the loss of bones in these areas. This reconstructed framework was then covered with a pericranial flap, a vascular flap taken from the top of skull bone, between the brain, oral and nasal cavities. A muscle from the temple was then used to reconstruct the cheek area and provide a barrier between the brain, oral and nasal cavities.

THE RESULT

Mr. Aggarwal’s case was extremely challenging as this involved great working coordination between multiple specialities whose expertise was needed for removal of complete microscopic tumour in one piece and then the reconstruction of the facial area to give him an acceptable face.

Mr. Aggarwal’s family was initially reluctant for the surgery fearing loss of the facial expression and contour but later profusely thanked the doctors for their ‘brave act.’
Understanding the challenge of severe Acute Pancreatitis
Fighting ignorance around Pancreatic disorders with helpful information and timely action

Diseases of the Pancreases are not so common. They are often difficult to diagnose. Investigation and treatment options for pancreatic disorders are technology intensive and expensive. The clinical, financial and social consequence of diseases of the pancreas are probably as significant as diseases of more ‘emotive’ human organs like the heart and brain. Unlike diseases of the heart and brain, pancreatic diseases are not subject of common discussion in the general public.

Acute Pancreatitis has been the subject of intense research resulting in meaningful guidelines. These clinical pearls can be summarised as follows:

**Diagnosis**
- Presence of at least two of the following three:
  - Characteristic pain
  - Threefold elevation of serum amylase or lipase
  - Typical findings on contrast enhanced CT studies

**Initial risk assessment:**
- Patient with clinical or biochemical evidence of multi-system organ involvement must be approached with particular care and kept under close observation
- Prompt resuscitation with isotonic crystalloid
- ERCP not routinely needed. If associated cholangitis is present, best results can be derived from ERCP within 24 hours of onset
- Routine use of prophylactic antibiotics not recommended but may be used for associated extra pancreatic infection
- Early enteral feeding facilitates recovery
- Surgical intervention for infected pancreatic necrosis will give best results if four weeks have passed after onset. Early intervention has been shown to give poor results.
- In surgery too, the best results are shown from a “step up approach” starting with image guided drainage, followed by endoscopic drainage. If possible both the procedures can be done minimally
- Invasive laparoscopic or retroperitoneoscopic technique with open conventional surgery is being used in small number of cases

The real challenge for doctors must be not only in the treatment of Acute Pancreatitis but also in constantly counselling and educating the patient’s relatives, attendants in particular and the public in general about the disease to enable them to cope better with the situation.

Haploidentical Bone Marrow Transplant
A boon for incurable blood disorder patients

In recent years, there have been dramatic breakthroughs in the field of Haematology and Stem Cell Transplant, the latest being treatment through Haploidentical Transplantation technique that eliminates the wait time for the ones in immediate need of Bone Marrow Transplants.

Bone Marrow Transplant is recommended in case of incurable or possible fatal blood disorders such as Acute Leukaemia, Multiple Myeloma, Aplastic Anaemia and Thalassaemia Major, which cannot be cured using conventional therapy, such as Chemotherapy and Radiotherapy. Now, in a typical Bone Marrow Transplant, damaged or destroyed bone marrow is replaced with the healthy bone marrow stem cells but the major limiting factor is the availability of a suitably matched related donor. Although this limitation is partly overcome by voluntary unrelated donors available through various registries, however, such representations are very less.

But with advancement in medical sciences, there is a new procedure called “Haploidentical Transplantation” that virtually eliminates the waiting period for people who need Bone Marrow Transplants on an urgent basis. This procedure works just as well as a complete match even if a donor’s tissues are only half identical with those of the patient. The donor in this case may be the recipient’s parent, sibling, child or a family member.

Earlier people with Leukaemia and Lymphoma used to wait endlessly for a Bone Marrow Transplant until they could find a complete match among family members or from outside donors. More often than not, as they waited, their cancer would progress leading to life threatening complications.

Until then half-matched, or Haploidentical Bone Marrow Transplants, were considered impossible because of high rate of immune system rejection, slow recovery and a substantial risk of treatment-related mortality. But better knowledge, significant improvement in immunosuppressive drugs and improved techniques of T cell depletion has led to a sea change in the success of Haploidentical Bone Marrow or Blood Stem Cells Transplant.

Though there are certain complications associated with the treatment, still the success rate of Haploidentical Bone Marrow Transplant is essentially the same as for people who receive complete match transplants.
BLK Super Speciality Hospital going places

UZBEKISTAN

BLK Super Speciality Hospital has signed a MoU with Republican Research Center of Emergency Medicine (RRCEM), an Association of Emergency Physicians at Uzbekistan, to establish cultural, educational, scientific and medical cooperation in various spheres.

The MoU was signed by Mr. Naresh Kapoor, Executive Director, BLK Super Speciality Hospital, New Delhi and Dr. AM Khadjibayev, Director General from RRCEM.

The MOU would go a long way in strengthening tertiary care for RRCEM as well as facilitating capacity building for specialised emergency care.

This partnership would also provide a platform for BLK Super Speciality Hospital to organise master classes and specialised workshops at RRCEM.

TANZANIA

Dr. Subhash Chandra, Chairman & HOD - Cardiology, BLK Heart Centre, BLK Super Speciality Hospital had performed surgical interventions at 'The Jakaya Kikwete Cardiac Institute', in Dar es Salaam, Tanzania. On invitation from the institute, Dr. Subhash Chandra performed 9 surgical interventions ranging from Angioplasties to Balloon Mitral Valvuloplasties on patients in the age group of 5 to 69 years, including a pregnant lady.

ZAMBIA

In partnership with University Teaching Hospital, Lusaka and The Lusaka Apex Medical University, Doctors from BLK Super Speciality Hospital - Dr. Neeraj Bhalla, Director & Senior Consultant - Cardiology, BLK Heart Centre, Dr. Y P S Rana, Consultant, Urology, Andrology & Renal Transplant, BLK Centre for Renal Sciences and Kidney Transplant, held OPDs and CMEs for the very first time in Lusaka, Zambia. These forums received tremendous response and were attended by large number of patients and delegates.