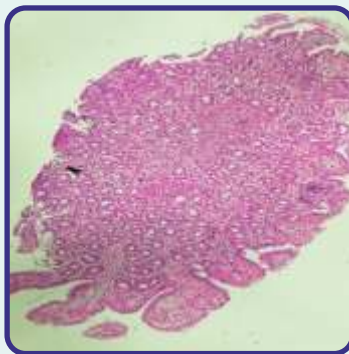


# LILAVATI HOSPITAL MEDICAL TIMES

AUGUST 2020



Lilavati Hospital and Research Centre

*More than Healthcare, Human Care*

NABH Accredited Healthcare Provider



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## From COO's Desk



I would like to start by thanking and saluting all the COVID warriors who have tackled the sudden pandemic of COVID-19 with immense courage, patience and dedication.

COVID-19 is changing everything about life and work as we know it. We are still in the midst of this global pandemic which has affected every citizen of the world and Maharashtra is one of the worst affected states.

However at Lilavati Hospital we are focussed on how to save and treat our patients in the face of this unfolding crisis with quality medical care.

Right in the beginning of this pandemic; Lilavati Hospital was amongst the first in the city to set up a Screening, Triage and separate corridors for COVID and Non COVID patients. We are also tasked to run a CCC2 Centre by BMC at the Maternity Home building next to Lilavati Hospital.

We are authorised testing lab for COVID-19, COVID Antibody, Rapid COVID Antigen and recently started Rapid RT PCR COVID testing by GeneXpert. This enables us to tackle all emergencies at any time of the day and allow immediate intervention in Operating Rooms and Cardiac Cath lab.

Since April 2020; we have been managing 85 ward beds and 48 ICU beds in LHRC for COVID patients. Apart from this we are also managing a 87 bedded COVID isolation centre adjacent to the Hospital (for asymptomatic positive patients) in association with MCGM and we provide complete staff, medications, food and housekeeping services to the patients admitted in this facility absolutely free of charge.

Our dedicated team of Pulmonologists have taken excellent care of these patients along with intensivists and all other consultants ably supported by our nurses, paramedical staff and all support services. The management is grateful to them for their untiring efforts and diligence, working round the clock, in these high risk areas. Some of them in the course of their duties have fallen prey to the deadly infection and it is heartening to see all of them have recovered and rejoined duties with full vigour.

Since 21st May 2020, as per the MCGM directives, we have 80% government regulated beds and 20% institutional beds in all ICU's and wards where charges for the govt regulated beds have been fixed by MCGM.

As on 15th September 2020; we have treated 1500 COVID in patients at Lilavati Hospital and over 1000 positive cases at BMC Centre run by Lilavati Hospital (next to Lilavati Hospital). I wish to highlight that while we are continuing to treat COVID patients, we are also treating NON COVID medical and surgical cases and the workload has gradually picked up. The hospital has been made absolutely safe for Non COVID cases and there is no mix up or contact with COVID cases for these patients.

In order to ensure that there is no mixing of COVID and NON COVID patients the hospital is divided in 3 zones

- Green Zone is a NON COVID area wherein the patients/relatives can enter the hospital from lobby entrance or emergency department and has been adequately sign posted.
- Orange Zone where the suspected cases (those with no swab reports) are accommodated including all emergencies in the Triage area in the hospital basement.
- Red Zone for confirmed COVID patients. We have an entirely separate entrance from the basement Triage area and a dedicated lift (which stops only on COVID floor) for these patients, there is no access to this lift from anywhere else in the hospital. Regular sanitisation is carried out throughout the hospital areas.

Hospital has resumed all its operations in full force and has opened OT, Cathlab, OPD, diagnostic services for Non COVID cases and high end surgeries pertaining to Cardiac, Gastroenterology, Neurosurgery, Paediatric surgery, Orthopaedics, Oncosurgery and Urology are routinely performed for NON COVID cases. All Gynaecology procedures, routine deliveries and caesarean sections have been carried out throughout this period. Our Video consultation has also been a successful venture completing over 2000 consultations till date.

Coming to this edition of Medical times, our team of doctors have put in lots of efforts to compile this edition while managing their patients from home and hospital.

We have managed to share interesting cases in the field of Anesthesiology, Histopathology, Orthopedics and Pediatric Surgery

We have also shared our national and international publications from our post graduates from different disciplines that the hospital has provided and nurtured.

Hope you enjoy reading this edition as much as you appreciated the previous one.

I wish to again inform you that Lilavati Hospital is committed to you and your loved ones, even in the wake of the COVID-19 pandemic while ensuring safety of all the patients and care givers. We adhere to stringent protocols to prevent contamination and to make our regular healthcare services available to all.

We are grateful for the immense faith reposed on us by our Principal advisor and Honourable Trustees in running the hospital and they have given full support to the management during this period.

We support & stand by you in this 'Pandemic' while continuing to provide "More than Healthcare, Human Care"

**Lt. Gen. (Dr.) V. Ravishankar, VSM**

Chief Operating Officer

Consultant – CVTS

MS (General Surgery), DNB (General Surgery), MCh.(Cardiothoracic Surgery)

## Editorial



I thank our staff and doctors who have made it possible to publish this edition of Lilavati Hospital Medical Times in an extremely difficult period for humanity. While the world reels under the COVID pressure, warriors all over the world are doing selfless work to save humanity. Our hospital too is doing its share and with aplomb!

In this journey we have lost a few colleagues but seen many admitted and recover and we respect their efforts. I hope the COVID deaths don't go in vain as we learn more about this wretched disease and try to control this storm effectively.

Despite this, our hospital doctors from different specialities have provided valuable reading material and case studies so as to provide this academic feast to our readers and keeping us updated. Much appreciated.

Please read and enjoy this magazine cover to cover to maximally utilize the presented information.

Do continue to give us a feedback with criticism and/ or suggestions to assist us in improving the publication, after all we are here to empower you with more knowledge, the more we share the more we learn!

Please take care and keep healthy

**Dr. Abhay A Bhawe**

Chief Editor, MD, FRCPA, Haematologist



## Message from Principal Advisor to the Board of Trustees



Dear Respected Doctors,

This Pandemic Covid-19 crisis started in the last week of March 2020, and is now spreading rapidly throughout our city, state and the nation.

At this critical juncture, with your support, dedication and commitment in the frontline of battling the novel coronavirus disease (COVID-19), many patients are getting treated and going home cured from Lilavati Hospital. I keep remembering you all in this most critical situation, you all are giving your services to the needy patients selflessly, which is a matter of great pride for the entire nation.

Most unfortunately some of our Senior Consultants and Doctors also turned Covid positive while treating covid patients in the Covid ward. With God's grace, they have recovered and we all are very happy about this.

Thank you for all the sacrifices you make, every day and especially during this pandemic. Please continue rendering your noble services to the society and do take care of yourselves and your family too.

Keep in touch. It will be my pleasure to do anything for you.

Lilavati's management is proud of all of you and your supporting staff.

High regards,

**S. Lakshminarayanan, IAS**

Secretary to Government of India (Retd).

Principal Advisor to the Board of Trustees

Lilavati Hospital & Research Centre

## Overview: Lilavati Hospital & Research Centre



Late Shri Kirtilal Mehta



Late Smt. Lilavati K. Mehta

### Lilavati Kirtilal Mehta Medical Trust

Lilavati Hospital and Research Centre is run and managed by Public Charitable Trust - Lilavati Kirtilal Mehta Medical Trust which was formed in 1978. The Trust was started by late Shri Kirtilal Manilal Mehta. The Trust has engaged in innumerable charitable endeavors across India.

#### The Lilavati Kirtilal Mehta Medical Trust is being managed and administered by Board of Trustees:

Smt. Sushila V. Mehta	Shri Prabodh K. Mehta
Shri Kishor K. Mehta	Shri Nanik Rupani
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Shri Bhavin R. Mehta

Principal Advisor to the Board of Trustees and  
Lilavati Hospital & Research Centre  
**Shri S. Lakshminarayanan, IAS (Rtd.)**

### Lilavati Hospital And Research Centre

Late Shri Vijay Mehta wished to fulfill his parents desire to build a world-class hospital where everyone in need for relief from disease and suffering come in with a certainty to receive the best possible medical care. His passion, attention to details and perseverance resulted in iconic healthcare landmark called **Lilavati Hospital**.

Lilavati Hospital & Research Centre is a premier multispecialty tertiary care hospital located in the heart of Mumbai, close to the domestic and the international airport. It encompasses modern healthcare facilities and state of art technology dedicatedly supported by committed staff.

Lilavati Hospital has focused its operation on providing quality care with a human touch; which truly reflects the essence of its motto, "More than Healthcare, Human Care". Being a centre of medical excellence where technology meets international norms and standard, the hospital has got what it takes to be a pioneering quality healthcare institute that is also one of the most sought after and patient friendly hospital.

**Mission:** *To provide affordable healthcare of international standard with human care*

**Motto:** *More than Healthcare, Human Care*

## Highlights

- 323 bedded hospital including 77 intensive care beds
- 12 state-of-the-art well equipped operation theatres
- Full-fledged Dental & Dermo cosmetology clinic
- State of art PET – SPECT CT department
- Lilavati Hospital is recently equipped with Coronary GRAFT Patency Flowmeter which is first of its kind in India. This imaging system is used in Cardiac surgery to assess GRAFT flow / perfusion in coronary bypass surgery.
- The hospital has added Intraoperative Nerve Monitoring system which enables surgeons to identify, confirm and monitor motor nerve function of the patients which helps to reduce the risk of nerve damage during various operative surgeries.
- The hospital has upgraded its ENT department by adding a top-of-the line surgical operating microscope to carry out various microsurgies under high magnification. The microscope electronics allows the surgeon to electronically control object focusing, magnification, illumination, surgical recording, etc.
- All days round the clock OPD Pathology and Radiology investigations without any Emergency charges.
- ICU Emergency charges after 8pm are kept at par with the day time and additional charges are withdrawn.
- More than 300 consultants and manpower of nearly 1,800.
- Hospital attends to around 400 In-patients and Out-patients daily.
- Modern Cathlabs having specialized SICU & ICCU with highly trained cardiac care medical staff
- Lilavati Kirtilal Mehta Medical trust is an approved research organization by Ministry of Science & Technology having all modern facilities necessary for conducting research

## Lilavati Kirtilal Mehta Medical Trust Research Centre

The Lilavati Kirtilal Mehta Medical Trust Research Centre is a Scientific and Industrial Research Organization approved by Ministry of Science and Technology (Govt. of India). The Research Centre under guidelines of Dept. of Science & Technology works in close collaboration in evaluating and developing technologies for better healthcare to the sick people. The research centre has undertaken multidisciplinary researches in the fields of Cardiology, Radiology, Cerebrovascular Diseases (Stroke), Ophthalmology, Chest Medicine, Nuclear Medicine, Pathology, Oncology, Orthopedics etc., to cite a few. One of the important aim of the research centre is to establish community based epidemiological researches in cerebrovascular disease in stroke. As a policy, Drug and Device Trials are not undertaken at the Research Centre.





## Review Article: Plastic Surgery

### Frontal Hair line correction in Indian females with high forehead

**Dr Sumit Agrawal, MS, MCh, MRCS (UK), COPS (USA), Consultant Plastic Surgery**

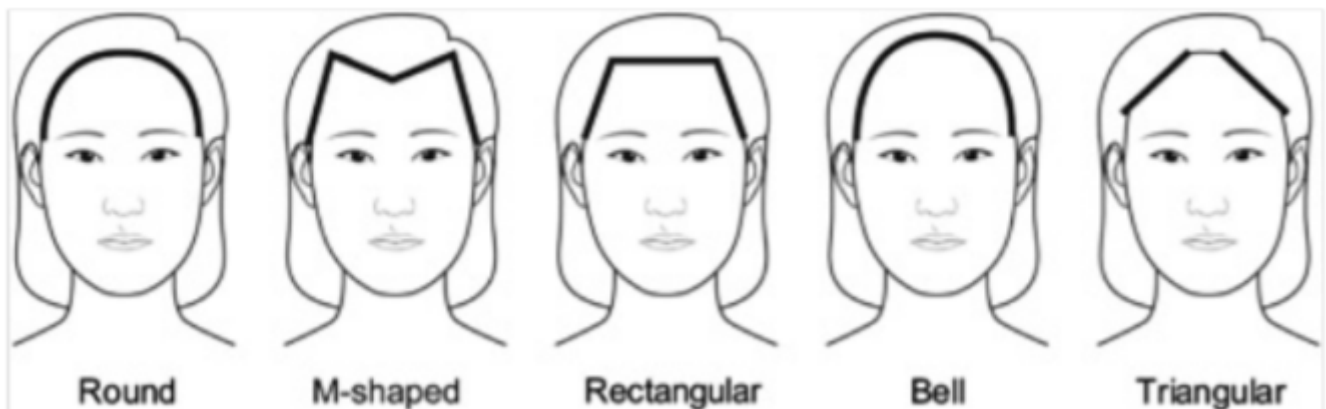
#### INTRODUCTION :

The contour of the frontal hairline and the proportion of the forehead to the entire face is pertinent for a balanced and attractive female face. A high forehead and a deep frontotemporal recess can create a masculine and strong image. An attractive and proportionate face is divided into equal thirds, with upper third extending from hairline to the eyebrow, the middle third from eyebrows to the Nasal tip & lower third from Nasal tip to menton.

Forehead reduction surgery reduces forehead height instantaneously, while maintaining the hair line density. However the procedure leaves a scar high in forehead & unfortunately coloured skin have high tendency of scarring. Also the forehead reduction surgery reduces forehead height only, it doesn't involves temporal hairline correction (Fronto temporal recess)

Asians (Indian) females have a brachycephalic facial skeleton, more wide from side to side. Therefore Frontal & Temporal hair line correction is more suitable than frontal hair line lowering surgery. Frontal hairline Transplant not only shortens the forehead height but also corrects the Fronto temporal recess. This helps in giving face a small, slim, feminine & more attractive look.

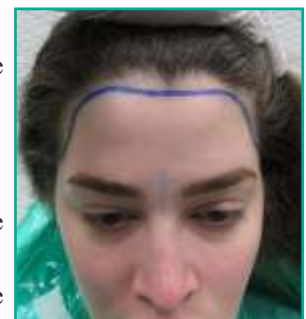
There have been recent advances in technique of Hair transplant & studies about natural female hairline patterns. It has now been possible to give much improved patient satisfaction with frontal hair line transplant. Here we are sharing few tips about how to plan a Natural looking hairline for females & how much it differs from a Male hairline



Classification of Female hair line pattern: 1. Round (overall roundshape without a fronto temporal recess) 2. M shaped (masculine hair line pattern with deep, retruded Fronto temporal) 3. Rectangular (square shaped hairline) 4. Bell shaped (Normal forehead width but high forehead height) 5. Triangular (no Temporal recess and a straight line from the Midfrontal point to Temporal point).

#### Planning of Female Frontal Hairline

- The low-positioned (compared with men) and rounded female hairline frames the female face and adds youth, beauty, and femininity to a woman's face
- The hairline should be rounded downwards at the fronto temporal corners.
- Hairline is relatively straight and has fewer 'sentinel hairs' that protrude out.
- The hairs rotate from a point centered typically just off of midline on one side and cascade obliquely down the temple area, known as 'cowlick'
- There can be 'lateral mounds' which are small protrusions of hairline in the outer portion of the hairline



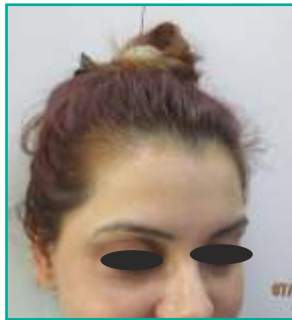
*Markings of  
Female Frontal Hairline*

## MATERIALS & METHODS:

The study retrospectively included a total of 34 female patients who visited from Jan 1<sup>st</sup>, 2014 to Dec 31<sup>st</sup>, 2019. These patients complained of high forehead and underwent frontal hair line transplant. Patients with history of previous forehead reduction surgery or Transplant, facelifting, scarring alopecia were excluded. Patient age ranged from 26yrs to 49yrs. Donor hairs were harvested by FUT (Strip) technique in 20 patients & by FUE (follicular unit excision) in 14 patients after partial trimming in Occipital area.

## RESULTS :

The hair growth starts happening in 3months & takes almost a year to get the complete results



*Case 1: Frontotemporal receding in a 26yr female.  
800 Grafts done by FUE*



*Case 2: Frontotemporal receding in 28yr Female.  
1200 grafts done by FUT*



## CONCLUSION:

Frontal Hair line Transplant in females has the advantage of reducing the Forehead height & width also. It helps us in achieving a good proportions for the forehead and attractive female face.

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## Case Report: Anaesthesiology

### Anaesthetic management of a patient with deep brain stimulation implant in-situ for lumbar decompression surgery: A case study

**Dr. Samidha Waradkar, DA, DNB, PGDMLS, Consultant Anaesthesiology**  
**Dr. Sukanya Khan, MD, DNB, Associate Specialist Anaesthesiology**

#### CASE REPORT

A 60 years male with advanced Parkinson's Disease with bilateral Sub Thalamic Nucleus-DBS implant was posted for lumbar decompression surgery. He presented with low back pain since last 5 months.

Preoperatively, patient was able to walk with minimal tremors. Systemic examination and routine investigations were normal. MRI spine revealed severe lumbar canal stenosis (L3-S1). Neurologist was consulted for special precautions regarding the Deep Brain Stimulation (DBS) implant and perioperative management of the patient. On the day of surgery, patient's routine medications (Levodopa, Carbidopa, Entacapone, Amantadine) were given. The DBS device was turned off by the implant specialist prior to induction of general anaesthesia. This did not result in immediate reappearance of symptoms like increased rigidity or tremors.

Patient was induced using IV Propofol 100mg, IV Fentanyl 100mcg, IV Cisatracurium 10mg and airway was secured. Maintenance of anaesthesia was done using Oxygen and Nitrous oxide (50:50) with Sevoflurane and intermittent top ups of IV Cisatracurium. Monitoring consisted of electrocardiography, noninvasive blood pressure, pulse oximeter, end tidal CO<sub>2</sub> and bispectral index (Fig.1).

Surgery was done in prone position lasting for 1.5 hours. Although bipolar cautery was kept on standby, the surgeon chose not to use it. Blood loss was approximately 200ml which was replaced by 1000ml of balanced salt solution. Intraoperative urine output was >0.5ml/kg/hr (100ml). Patient was haemodynamically stable throughout the surgery.

At the completion of surgery, the neurostimulator was switched on by the implant specialist (Fig.2). Patient was reversed and had smooth emergence from anaesthesia with no neurological signs or visual deficits confirming normal functioning of the DBS device.



◀ Fig.1. Intraoperative Monitoring  
 Fig.2. Checking of DBS device  
 ▼



## DISCUSSION:

Parkinson's disease (PD) is a disorder of the extrapyramidal system due to the deficiency of dopamine in the basal ganglia characterized by rest tremor, rigidity, bradykinesia, and gait impairment.<sup>[1]</sup> There are many perioperative considerations specific to patients with Parkinson's disease including, difficulties of airway management, autonomic dysregulation, and medication interactions.<sup>[2]</sup>

Deep brain stimulation (DBS) is rapidly becoming the preferred surgical choice for treatment of advanced PD<sup>[3]</sup> for having reported significant improvement in cardinal motor signs<sup>[4]</sup>.

DBS devices (Fig 3&4) can interfere with monitoring and therapeutic devices such as electrocardiography, short wave diathermy, electrocautery, pacemakers, external cardioverters, and defibrillators.<sup>[5]</sup> This may lead to device dysfunction and tissue damage due to overheating of the electrodes<sup>[6]</sup> as energy during electrocautery could be transferred through implanted system, damaging the brain at the site of implanted brain electrode. There has been a case report of diathermy causing significant brain damage in patients with DBS<sup>[7]</sup>.

The bipolar cautery (with minimum power settings used in short intermittent bursts) is preferred to monopolar cautery as it reduces the potential for electromagnetic interference.<sup>[5]</sup>

Turning off the DBS device may result in reappearance of symptoms like tremors and muscle rigidity. Also, diathermy can still damage the DBS system whether neurostimulator is turned on or off.<sup>[8]</sup>

Therefore, the device should be turned on postoperatively (prior to extubation) and checked by a DBS specialist<sup>[3]</sup> to ensure proper working of the device and smooth recovery of the patient.

## CONCLUSION:

Due to advances in healthcare and increasing number of patients opting for DBS implants, the anaesthesiologist is more likely to encounter such patients in the operating room, who come for surgeries with a DBS implant in situ. Although very little literature is available regarding the safe conduct of anaesthesia in such patients with careful perioperative management a safe anaesthetic environment can be ensured with successful avoidance of complications.

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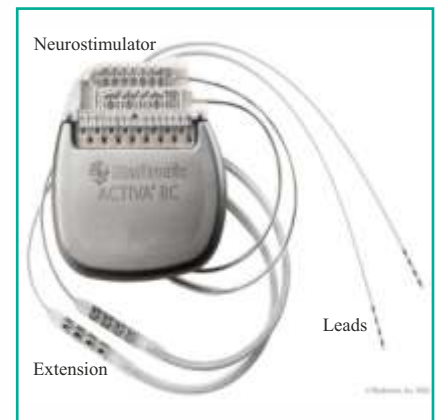


Fig 3: Parts of a DBS Implant.



Fig 4: Position of neurostimulator in the chest.



## Case Report: Paediatric Surgery

### Sharp foreign body inhalation

**Dr. Shruti Tewari, DNB Resident, Paediatric Surgery**

**Dr. Rajesh Nathani, MBBS, MS (Gen Surgery), MCh (Pediatric Surgery)**

Consultant Paediatric Surgery

#### CASE REPORT

A 14-month old male boy was brought with a history of foreign body (FB) ingestion. He had a mild cough but was otherwise asymptomatic. Chest X-ray with anteroposterior and lateral views suspected presence of a pin in the trachea, entering into the left main bronchus. A CT chest was done to confirm the exact location. During bronchoscopy, the pin was visualized at the carina partly entering the left main bronchus. It was brought out carefully with no damage to any surrounding structures. A chest x-ray was done post removal and the patient was discharged within 24 hours of admission.

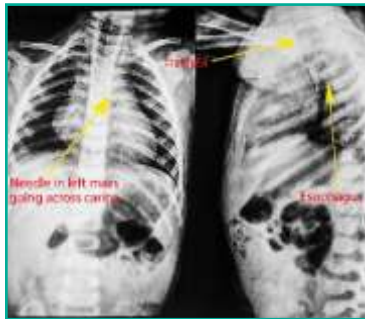


Fig 1: Pre-op Chest X-ray

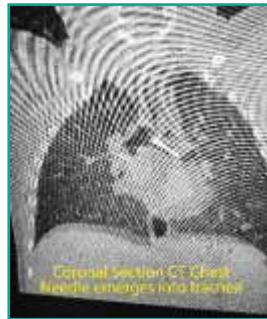


Fig 2: Pre-op CT scan



Fig 3: Foreign Body



Fig 4: Post-Op Chest X-ray

#### DISCUSSION:

Foreign body aspirations can occur at any age but the reported incidence is highest in the age group of 0 to 3 years. This can be attributed to the fact that children in this age group cannot chew effectively and tend to keep the food in the mouth longer than usual leading to aspiration. Also children under the age of two try to learn about almost every object by mouthing, leading to increased incidence of non-organic or sharp foreign body ingestion<sup>[1]</sup>. Most importantly the airway in a child has a much smaller diameter thus making it prone to getting obstructed easily<sup>[2]</sup>.

The patient might be asymptomatic at presentation or could have symptoms like cough, dysphagia or stridor. Inhaled foreign objects can cause choking or gagging as they pass through the epiglottis and vocal cords.

Only 16% of foreign bodies are diagnosed by x-ray chest as they are radiopaque, so a negative film does not exclude aspiration<sup>[3]</sup>. Metallic objects are easily visualized by X-rays. CT has a superior diagnostic yield as compared to X-ray mainly for radiolucent foreign and 3D reconstruction can provide exact localization of the foreign body.

For sharp foreign bodies, a rigid bronchoscope with a large diameter is preferred in pediatric patients because there is good access to the subglottic region and better oxygenation. Risk of injury can be minimized if FB is retrieved within the rigid barrel of the scope and the entire assembly is removed en bloc. Fiber-optic flexible bronchoscopy can be rapidly and safely performed under local anesthesia with minimal sedation but is mostly preferred in adults. The biggest problem with the flexible bronchoscope is the restricted ability to ventilate the patient while doing the procedure.

Various studies have reported an incidence of negative bronchoscopy but the literature emphasizes that a patient with a history of foreign body aspiration should undergo urgent bronchoscopy and some negative bronchoscopies are acceptable in order to prevent the morbidity that occurs from a missed foreign body aspiration<sup>[4]</sup>. Unsuccessful attempts to remove a foreign body might push it more distally, making it difficult to retrieve. Major complications include bleeding, pneumothorax and respiratory distress but they occur rarely.



## CONCLUSION:

FB aspiration should be considered as a differential in any young child with unexplained cough as it is a potentially life-threatening situation. Sharp foreign bodies might cause fatal complications because of the added risk of penetrating through the respiratory tract into surrounding vital structures. Rigid bronchoscopy is successful in the majority of the patients.

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## Case Report: Histopathology

### CRYPTIC CLUES -

E O S I N   P H I L I C   G A S T R O E N T   R I T I S

**Dr. Asha Mary George, MBBS, MD Pathology, Consultant Histopathologist**

### INTRODUCTION

Eosinophilic Gastroenteritis is a rare idiopathic condition usually affecting children & young adults<sup>1</sup>. Statistics show a prevalence of about 8-28/100,000<sup>2</sup>, with a slight female preponderance. Majority of the cases involve stomach and proximal small bowel<sup>3</sup>. Cases involving inflammation of oesophagus, distal small bowel and colon have also been reported.

### CASE REPORT

A 36 yrs old lady presented with history of pain in the upper abdomen (intermittent in nature) and few episodes of vomiting for one month. She had taken few courses of antibiotic therapy with no relief. She also complained of food intolerance and significant weight loss.

Her CBC showed raised WBC count with Eosinophil count of 65%. Her stool sample tested positive for occult blood and negative for parasites. USG abdomen was normal. Endoscopy showed congested gastric corpus & antral mucosa with granularity at places. Duodenum and proximal jejunum also showed oedematous & granular mucosa. Oesophageal mucosa was normal.

Endoscopic biopsy samples from duodenal and proximal jejunal mucosa, antral mucosa and oesophagus were sent for Histopathological evaluation.

### MICROSCOPIC FINDINGS

Focal blunting of villi was observed in the Duodenal and Jejunal mucosa. Intense Eosinophilic infiltration was seen in the lamina propria

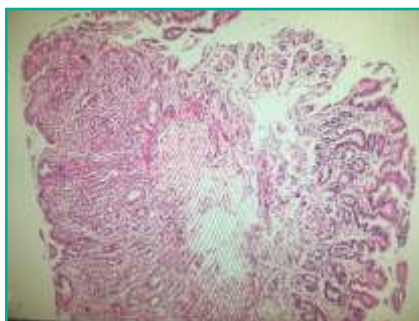
Eosinophilic cryptitis and degranulated eosinophils were noted.

Eosinophils were also seen in the submucosa surrounding Brunner's glands of the duodenum.

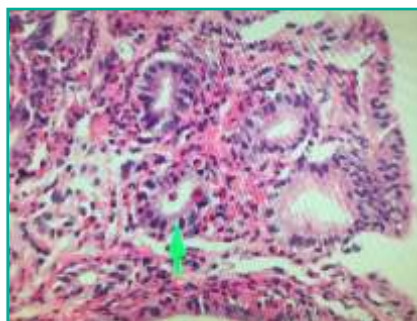
The antral mucosa showed mild distortion of crypt architecture with dense eosinophilic infiltrates in sheets in the lamina propria. Several crypts showed eosinophilic cryptitis and crypt abscesses were also noted.

Helicobacter pylori was not identified. Oesophageal mucosa showed no inflammation.

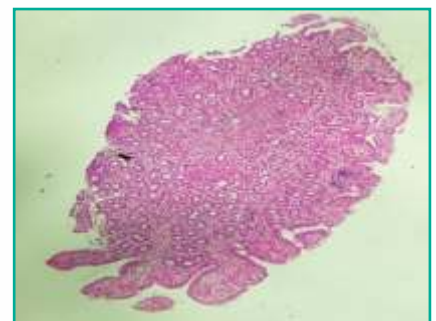
Based on the above microscopic findings, a histological diagnosis of Eosinophilic Gastroenteritis was offered after correlating with clinical history & endoscopy findings.



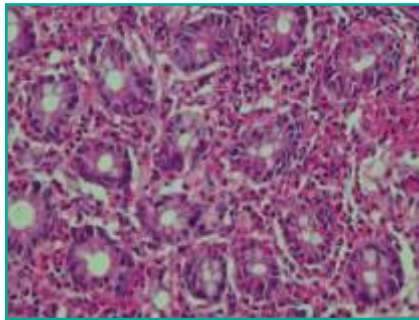
*Gastric antral mucosa with eosinophilic infiltration & crypt distortion*



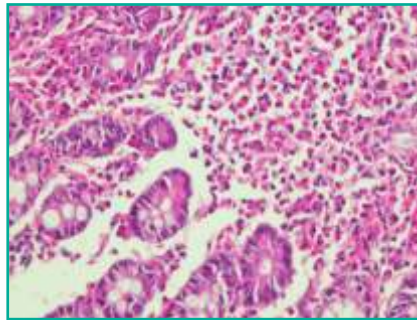
*Gastric antral mucosa showing eosinophilic cryptitis and crypt abscess (arrow)*



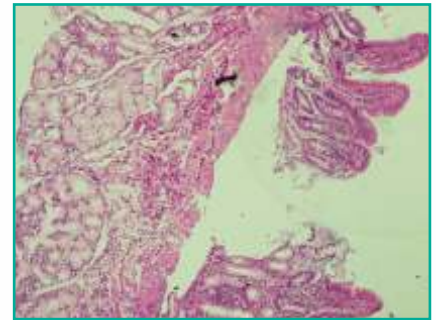
*Jejunal Mucosa showing blunted villi*



*Jejunal Mucosa with eosinophilic cryptitis*



*Jejunal Mucosa showing dense eosinophilic infiltrate*



*Duodenal Mucosa with eosinophilic infiltration around Brunner's glands*

## DISCUSSION:

Eosinophilic gastroenteritis is an unusual type of gastroenteritis which can have varied presentation depending on the level of involvement (Mucosal/Submucosal/Muscular/Serosal), Patients often have associated conditions like allergy/asthma, food intolerance, peripheral blood eosinophilia and raised serum IgE levels. Although aetiology is largely unknown, food intolerance and role of multiple allergens have been implicated. It is thought that cytokines -IL-5, IL-3 are involved in the recruitment of eosinophils in the tissues<sup>1</sup>.

The diagnostic criteria include demonstration of eosinophilic infiltration of bowel wall, lack of evidence of extraintestinal disease and exclusion of other causes of peripheral eosinophilia<sup>3</sup>.

In this patient, the proliferation of eosinophils seemed like they would spill out of the slides under the microscope. So many that they were madly invading the CRYPTS.

The infiltrating white blood cells seemed to shout out their new found love (Greek- Phil) for the Eosin stain (Eosinophils are named so for their readiness to be stained by the red dye Eosin) making the Histopathologists task so easy.

## Problems in histopathological diagnosis<sup>1</sup>

- Eosinophilic infiltrate can be patchy
- Mucosal biopsies can be nondiagnostic in up to 10 % of cases
- Multiple full thickness & even open biopsies may be necessary to establish diagnosis in cases with only muscle or serosal involvement.

## CONCLUSION:

Eosinophilic gastroenteritis is a rare entity and its accurate diagnosis is of utmost importance for patient management as antibiotics do not play a role in its treatment, rather patients show excellent response to steroid therapy.

Surgical resection may rarely be required in patients presenting with obstructive symptoms<sup>1</sup>.

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## Case Report: Orthopaedics

### Dysplastic high grade spondylolisthesis associated with Scoliosis

**Dr. Harshal Bamb, MBBS, Orthopaedics, Spine Fellow**

**Dr. Jayesh Bhanushali, MBBS, MS Orthopaedics, Spine Fellow**

**Dr. Hriday Acharya, MBBS, MS Orthopaedics, Spine Fellow**

**Dr. Priyank Patel, MBBS, MS Orthopaedics, Consultant Spine Surgery**

**Dr. Abhay Nene, MBBS, MS Orthopaedics, Consultant Spine Surgery**

**Dr. Munjal Shah, MBBS, DNB Orthopedics**

#### INTRODUCTION:

Scoliosis association with lumbar spondylolisthesis or spondylolysis is well documented in literature. 15 - 43% spondylolisthesis are associated with scoliosis in adolescent age group. Three types of scoliosis can be seen. Idiopathic scoliosis, isthmic or torsional scoliosis, sciatic or spondylolytic or antalgic scoliosis. However, there is no consensus in the literature on whether to treat the deformity along with spondylolisthesis or to treat as separate entities. In our case we have treated the dysplastic high grade spondylolisthesis and observed the scoliotic deformity.

#### CASE

A 15 yrs female presented to our outpatient department with complaints of progressive low back pain. She and her parents had also noted a list of the torso toward the right side (Figure 1,2). Neurological examination was normal. There was mild limitation of lumbar spine motion in both flexion and extension. Adams forward bending test did not show any rib rotation (Figure 3). Hip, knee and ankle examinations were normal. Whole spine Standing radiographs demonstrated Myerding grade IV Dysplastic spondylolisthesis at L5/S1 associated with a rigid thoracolumbar scoliosis (Figure 4). Cobbs angle was 50 degree correcting to 35 degree (Figure 5). There was rotation of the pedicles in the L5 vertebra, whereas the rest of the lumbar and thoracic spine did not show any rotation. MRI of Lumbo Sacral Spine with whole spine screening showed L5-S1 foraminal stenosis and there was no spinal dysraphism (Figure 6,7). L5-S1 transforaminal interbody fusion was done and spondylolisthesis at L5-S1 was reduced (Figure 8). Neuromonitoring was used. Baseline MEP, EMG were taken. During the entire procedure Neuromonitoring was uneventful. Post-operative x-rays shows reduced spondylolisthesis but scoliosis was still persistent (Figure 8). The possibility of addressing scoliosis if at all required will be dealt later was discussed with the family pre-operatively.



Figure 1,2 Clinical pre-operative sagittal and lateral profile of patient



Figure 3 Adam forward bending test showing no rib hump



Figure 4 Pre-operative scannogram of spine



Figure 5,6 MRI Lumbo-sacral spine showing L5-S1 grade 4 spondylolisthesis with foraminal stenosis

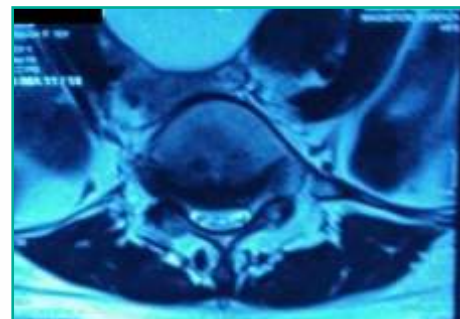


Figure 7 Pre-operative Bending view showing structural thoraco-lumbar curve





*Figure 8 Post-operative Scannogram of spine showing well reduced L5-S1 Spondylo-listhesis with implant in situ and persistent scoliosis*



*Figure 9 Xray Of LumboSacral Spine showing Grade 1 L5-S1 spondylolisthesis with no scoliosis (4 years before surgery)*



*Figure 10,11 Scannogram of spine (2 years before surgery) showing scoliosis*



*Figure 12 Scoliosis getting corrected on bending films (2 years before surgery)*

## DISCUSSION

High-grade spondylolisthesis has been associated with scoliosis in various case reports.<sup>1,2</sup> Some authors recommend treating each disorder on an individual basis<sup>3,4</sup> and some recommend that both should be addressed together as one pathology<sup>5</sup>. Treatment of high grade spondylolisthesis associated with a rigid scoliosis is a matter of debate.

There are three types of curve patterns of scoliosis associated with spondylolisthesis. First is idiopathic type, more commonly involving the upper spine, thoracic, or thoracolumbar. Second, olisthetic or torsional scoliosis as a result of asymmetric rotation and displacement from the spondylolytic defect. The third type is sciatic or antalgic type of scoliosis can be seen as a result of sciatic irritation and muscle spasm.

The compensatory olisthetic or sciatic scoliosis tends to resolve or improve after a lumbosacral fusion if this is performed before the curve becomes structural<sup>6,7,8</sup>. Crostelli and Mazza<sup>5</sup> proposed The scoliosis that are severe enough to be treated should be considered idiopathic and should be treated like idiopathic, separately from spondylolisthesis, if spondylolisthesis is asymptomatic. If spondylolisthesis is symptomatic, scoliosis should be treated together with spondylolisthesis or after spondylolisthesis treatment, according to the curve magnitude. According to their viewpoints, more scoliotic curves in association with spondylolisthesis need to be treated either surgically or conservatively.

In our case it was olisthetic or torsional scoliosis with L5-S1 grade 4 dysplastic spondylolisthesis. In her initial x-rays there was no scoliosis and grade of spondylolisthesis was grade 1 (Figure 9). With progression to grade 3 spondylolisthesis there was vertebral rotation seen at L5 vertebra and progression of scoliosis which was non structural (Figure 10-12). Now her throacolumbar scoliosis has become structural with progression of to grade 4 spondylolisthesis. The curve is non flexible may be due to pain or compensatory or idiopathic is difficult to say but we believe it to be compensatory due to rotation of L5 vertebrae and there was no apical vertebrae rotation in thoracic curve.

We were convinced before surgery that the scoliosis is progressing with spondylolisthesis. We treated spondylolisthesis surgically and left her scoliosis for observation. On her follow-up her pain was completely resolved and curve was persistent.

So quite opposite to theory suggested by Crostelli and Mazda we have observed Scoliosis and treated only her spondylolisthesis and firmly believe for her scoliosis to resolve with time.



*Post-Operative images of the patient*



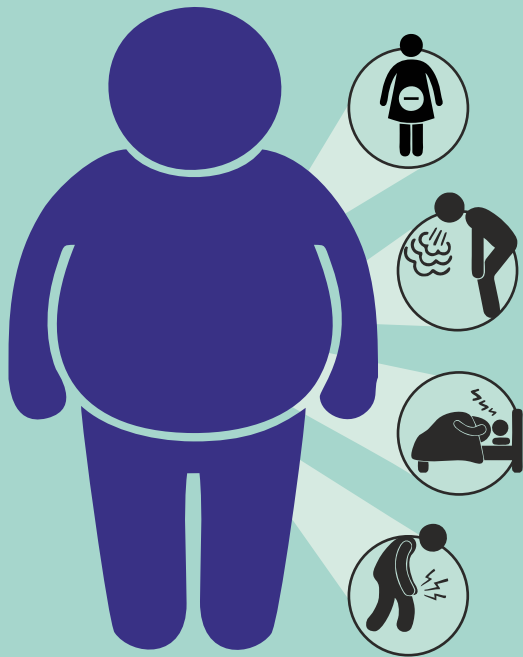
## CONCLUSION

Relationship between scoliosis and spondylolisthesis is very complex. Guidelines for managing this difficult combined entity is not well defined in literature. We try to emphasise by our case that in high grade dysplastic spondylolisthesis with olisthetic type of compensatory structural scoliosis, scoliosis can safely be observed with fusion of dysplastic spondylolisthesis. In future with better understanding of relationship between spondylolisthesis and scoliosis, guidelines for treating them will evolve.

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## List of Publications

S. No.	Author	Title of the Paper / Chapter	Type	Name of Journal
1	Anender Kaur Dhariwal, Prakash Sanzgiri, Charan Reddy KV, Vidya Suratkal & Suresh Vijan	Echocardiographic Profile in Newly Diagnosed Patients with Obstructive Sleep Apnoea (OSA) and Normal LV Ejection Fraction: A Prospective Study	International	Global Journal of Medical Research Early view, Volume XX Issue IV year 2020
2	Prakash Sanzgiri, Charan Reddy KV, Srinivas Kudwa and Rohan Thanedar	Aetiology and Management of Acute Thrombocytopenia Post PCI: A Case Report	International	Cardiology Cases and Systematic Reviews, Wright Academia, March 04, 2020
3	Charan Reddy K, Bhavesh Vajifdar, Pavan Kumar and Aniket Vazirani	Diagnosis and management of a rare case of ruptured sinus of Valsalva into the right atrium	International	Journal of Cardiovascular Medicine and Cardiology, 19 February, 2020
4	Prakash Sanzgiri, Charan Reddy KV, SrinivasKudwa and RohanThanedar	Aetiology and Management of Acute Thrombocytopenia Post PCI: A Case Report	International	Cardiology Cases and Systematic Reviews March 04, 2020 Volume 2 Issue 1
5	Charan Reddy KV, Bhavesh Vajifdar, Pavan Kumar and Aniket Vazirani	Diagnosis and management of a rare case of ruptured sinus of Valsalva into the right atrium	International	Journal of Cardiovascular Medicine and Cardiology 19 February, 2020 7(1): 033-035
6	Preeti Dhingra & A. G. Pusalkar	Spontaneous External Auditory Canal Cholesteatoma: Case Series and Review of Literature	National	Indian Journal of Otolaryngology and Head & Neck Surgery (Jan–Mar 2020) 72(1):86–91
7	Preeti Dhingra, Christopher de Souza, Kamal Parsram	Nasal polyposis with dextrocardia, pulmonary agenesis and microtia: Goldenhar syndrome - a case report	International	Otolaryngology and Head & Neck Surgery 2020 Mar;6(3):xxx-xxx
8	Swathi Chigicherla, Shruti Tewari, Rahul Deo Sharma, Rajesh Nathani	Sub-glottic cysts causing upper airway obstruction	International	Journal of Otolaryngology and Head & Neck Surgery 2020 June 6(6):1203-1205
9	Salil Mehta, Remco PH Peters , Derrick P Smit &Vishali Gupta	Ocular Tuberculosis in HIV-infected Individuals	International	Ocular Immunology and Inflammation
10	IlariaTesti, Rupesh Agrawal.Salil Mehta, Soumvaya Basu, Quan Nguyen, Carlos Pavesio,Vishali Gupta	Ocular tuberculosis: Where are we today?	National	Indian Journal of Ophthalmology Volume 68 Issue 9 Published: 20-Aug-2020

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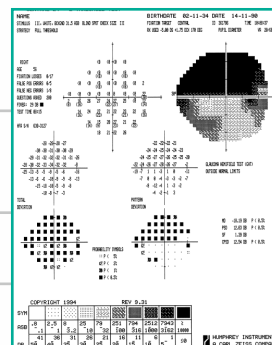
## **AUTOMATED PERIMETER (HFA3-840) : OPHTHALMOLOGY**

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Hospital Ranking Survey 2019  
published by The Times of India

## Straight from the Heart - Patient Testimonials

### **Aruna Shetty**

*I liked the overall ambience , service, care. Soft spoken staff & also overall cleanliness is good. All staff were courteous and prompt in action. Keep continuing the same quality care*

### **Shailesh Nadkarni**

*Almost all the healthcheckup tests are conducted on same floor. All customer care staff are very polite, courteous & committed to their job.*

### **Vinay Arondekar**

*I am 81yrs old. I had come to the hospital for COVID treatment. For 3 days I was in ICU and 3 days in ward. Hospital is nice. I find Dr. Pavan Kumar and Dr. Abha Pandey very good. All the staff, nurses and arrangement are very good.*

### **Hansaben Rana**

*Lilavati hospital is very good , attractive and very lucky for us. We have good experience as well as pleasant & satisfying. They save my mother's life. Thank you to Lilavati hospital.*

### **Arun Sharma**

*Sister in ICCU are very supportive & caring. I have no words on how to express my thanks & gratitude to them.*

### **Priyanka Choudhary**

*Health checkup coordinators are very good and they managed better way to get all the check up done on time*

### **Minesh Mohile**

*I liked caring, helpful & courteous staff who operates as a team . Smiling faces helping me stand up! THANKS.*

### **Ialu Maske**

*When I came to the hospital I had heart issue and the heart pumping was 25% which was very critical so doctor suggested to go for a surgery. Due to this COVID situation doctor gave us the confidence that here they will take care of everything so we proceeded further and had a successful operation.*

### **Bhumika Hemnani**

*Treatment received by doctors & nursing staff is excellent. Team Lilavati Hospital is doing wonderful job for Humanity, we hope you will continue this for decades to come . God bless you all!*



## Services Available

### MEDICAL

Anesthesiology  
Audiology and Speech Therapy  
Cardiology  
Chest Medicine  
Chronic Pain Management  
Dental  
Dermo Cosmetology  
Diabetology & Endocrinology  
Gastroenterology  
Diagnostics & Therapeutic Endoscopy  
Haematology  
Hair Transplant  
Head and Migraine Clinic  
Internal Medicine  
Infectious Diseases  
Lactation  
Medical Oncology  
Chemotherapy  
Nephrology  
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Sleep Medicine

### SURGICAL

Bariatric Surgery  
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Diabetic Foot Surgery  
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Neuro Surgery  
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Spine Surgery  
Transplant: Cardiac, Corneal, Kidney & Liver  
Urology, Andrology  
Vascular Surgery

### 24 HRS IMAGING

CT Scan  
Interventional Radiology  
MRI  
Non Invasive Cardiology  
CATH Lab  
Sonography  
X-Ray

### CRITICAL CARE

Intensive Care Unit (ICU)  
Intensive Cardiac Care Unit (ICCU)

Neo-Natal Intensive Care Unit (NICU)  
Paediatric Intensive Care Unit (PICU)  
Paralysis & Stroke Unit  
Surgical Intensive Care Unit (SICU)

### DIAGNOSTICS

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Health Check-up  
BMD  
Mammography  
Nuclear Medicine  
PET & SPECT CT Scan  
Urodynamics

### 24 HRS LABORATORY SERVICES

Blood Bank  
Histopathology  
Microbiology  
Pathology

### OTHER 24 HRS SERVICES

Ambulance  
Emergency  
Pharmacy  
Roshni Eye Bank

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The social service wing of the hospital - SEWA serves to the health requirements of needy people. This department seeks to bridge the gap between the needy patients and the fast evolving medical technology. Various social activities such as free OPD, services to senior citizen, sending mobile vans to Adivasi areas to organize free health check-up camps, free camps are undertaken as an on-going process. The Roshni Eye Bank managed by Lilavati hospital is a well-equipped comprehensive centre for cornea removal, processing, storing, supplying and corneal transplantation.

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2. Health Check up Camps at Nana Nani Parks
3. Mobile Clinic
4. Roshni Eye Bank

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<b>Blood Bank Medical Social Worker</b>	<b>8214</b>
<b>Cardiology</b>	<b>8236</b>
<b>Cath Lab</b>	<b>8137</b>
<b>Chemist</b>	<b>1579 / 1578</b>
<b>CT Scan Department</b>	<b>8044</b>
<b>Dental</b>	<b>8019 / 8078</b>
<b>Dermatology / Hydrotherapy</b>	<b>8020</b>
<b>EMG / EEG</b>	<b>8249 / 8250</b>
<b>Endoscopy</b>	<b>8057</b>
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<b>Health Check-up Department</b>	<b>8354 / 8356</b>
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<b>Medical Social Worker (SEWA)</b>	<b>8361</b>
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## Key Medical Equipments Installed In Recent Past

Equipment name	Department	Company
Cardiac CathLab System	CathLab	Philips BV – Netherlands
St.Jude Optis Mobile HD-OCT System	CathLab	St Jude Abbott USA
Radial Artery stabilization system	CathLab	Adept Medical - USA
Portable Ultrasound system	CathLab	GE Healthcare – USA
Digital Mammography system with Tomosynthesis	Radiology	Hologic Inc USA
Neuro Surgical 3D-HD Operating Microscope	Main OT	Carl Zeiss GmbH Germany
Harmonic Scalpel/Vessel Sealing device	Main OT	Johnson & Johnson – USA
High intensity operating Headlights	Main OT	Luxtec Inc – USA
Anesthesia Delivery system with ET control	Main OT	GE Healthcare – USA
Heart & Lung Machine with Heater Cooler	Main OT	Sorin – Germany
Image-1 HD Laparoscopy Camera System	Main OT	Karl Storz GmbH – Germany
Craniotomy system	Main OT	Aesculap GmbH – Germany
3D-HD Laparoscopy Camera System	ObyGyn OT	Karl Storz GmbH – Germany
Portable 2D-Echo System with TEE	Cardiology Lab	GE Healthcare – USA
7-Day Holter/Event Recorders	Cardiology Lab	Motara Inc – USA
Gene-Expert Tb/Molecular testing system	Molecular Lab	Cephied Inc – USA
190-series HD Flexible Endoscopy system	Endoscopy	Olympus Corporation – Japan
68-Channel Sleep Lab System	Sleep Lab	Philips Inc – USA
4-Channel EMG/EP System	Neurology	Nicolet Inc – USA
BERA (Brain stem evoked response) System	ENT OPD	GSI Audera – USA
Ultra Low temperature Plasma Freezer	Blood Bank	ThermoFisher – USA
Hand Held Fundus Camera	Opthal OPD	Carl Zeiss GmbH – Germany
Vein Finder Device	ICU/Wards	Accuvein – USA
Transport Ventilators	ICU/ICCU	ResMed – USA
Chest Compression Device	Emergency/ICCU	Schiller AG – Switzerland
Automated Ankle Brachial Index monitor	OPD	MESI Medical – Slovenia
WatchPAT Sleep Apnea testing unit	Sleep Lab	Itamar Medical – Israel
CoaguChek INR monitor	Floor Wards	Roche diagnostics
Ultrasonic Surgical Aspirator	Surgery – Main OT	Sorin GmbH
Intubation Videobronchoscope	Surgery – Main OT	AMBU

## Guidelines Speak

This section highlights newer / updated guidelines published for better patient care and could be practice changing

1. Blood Adv (2019) 3 (23): 3829–3866. ASH updated guidelines for ITP

Link: <https://doi.org/10.1182/bloodadvances.2019000966>

## Few Honorable Mentions

1. Dr.Hemant Mehta, Consultant – Nephrology authored chapter on Hemodialysis Vascular Access with Central Venous Disease which was published in IntechOpen
2. Dr.Rahul Kumar and Dr.Nazia Khan both DNB trainees in General Surgery have cleared final DNB practical examination which was conducted at JJ Hospital
3. Dr.Rudra Sukhtankar (Primary), Dr.Pragnasree Ravulapalli (Primary), Dr.Anamika (Primary), Dr.Snigdha Kumari (Primary) , Dr.Parul Singh(Primary) , Dr.Blossom Dsouza (Secondary) , Dr.Supriya Pabalkar (Secondary) successfully cleared final Anaesthesiology DNB practical exams
4. Dr. Yash Lapsiwala , Dr. Nischal Chovatiya , Dr. Rahul Medidar and Dr. Pallavi Kulkarni have passed certificate course of RSSDI (Diabetology and Endocrinology), 2019-2020

## Doctors Share Their Experience On Video Consultation



**Dr. Aniruddha Phadke**  
Gastroenterology

Used the video consultation platform for patients and found it very convenient. I was quite apprehensive to use it. However, Mr. Sachin was a constant support before during and after consultations. Mr. Kundan Singh was very prompt with following up.



**Dr. Deepak Chabra**  
Oncosurgery

Very happy with Software. Must congratulate the team for a very good effort in video consultation.



**Dr. Raina Nahar**  
Dermatology

It was a great experience, totally loved it. Very easy and user friendly mode. Looking forward to more such opportunities.



**Dr. Girish Soni**  
Neurology

Thank you very much Shraddha for such immense help, kindness and prompt response as always. Finding video consultation of great help.



**Dr. Rekha Agrawal: Gynecology**

My video consulting experience was very good and seamless. I am glad that we are offering this, as patient feels comfortable after seeing the doctor even if it is virtual. I think the marketing team, Sachin, Shraddha and Priti have taken lot of efforts to train us online to use the module and ensured that they are at hand if any glitches happen. In fact you guys are improvising on the spot by extending consult time if 15mins are insufficient. I am personally very happy to use the Video Consultation service. Thank you marketing team for keeping abreast with changing times.



**Dr. Arun Khatavkar**  
Dental

It went as scheduled. Thanks for the support.



**Dr. Jawahar Panjwani**  
Orthopedics

Very good experience of video consultation. Keep it up team Lilavati.



**Dr. Ashok Sirsat**  
Neurology

Conducted many video consultations. Happy with the experience. Thank you very much Shraddha for all the support



**Dr. Jaydeep Palep**  
Gastro Surgery

My video consultations were pretty seamless and straight forward. I think it's a good tool especially for follow up consult and we should continue this platform. Thank you Sachin for your efforts and tips on the use of the app. Take care and Stay Safe, Cheers.



**Dr. Samir Kumta**  
Plastic Surgery

Thank you very much. Looks quite simple to use.



**Dr. Shashank Joshi**  
Endocrinology

I must congratulate Sachin and his team for an excellent video consultation to help patients connect with us. Many patients called me to bless. Keep up your good work in these difficult times



**Dr. Sudhir Warriar**  
Orthopedics

Excellent session. Simplified and you took me through it pretty easily!. Thanks Shraddha.



**Dr. Swarna Goel**  
Gynecology

Thank you Sachin for all your help in trouble shooting the issues during the video consultation. You have been very prompt and helpful. Thank you once again. The video consultations are going on very well. Patients are satisfied that they are getting to talk to the doctors and are getting their prescriptions immediately. I am not technically savvy but am still managing well, thanks for your help.



**Dr. Taher Shaikh**  
Liver Transplant

I appreciate the initiative taken by the marketing team and the Lilavati Hospital so that there can be continuity of care of patients during this pandemic. I would specially like to compliment the excellent proactive efforts of Mr. Sachin Nayak in explaining the features of the system. Moreover he allayed my apprehensions by making a dummy call so that I can have smooth glitch free Consultations with my patients. Patients were happy to avoid the difficulty of coming to Hospital.



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Dr. Budhakar Shashank  
Dr. Gandhi Nisha  
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Dr. Gawankar Prakash  
Dr. Kharwadkar Madhuri  
Dr. Khatri Bhimsen  
Dr. Kulkarni Satish K.  
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Dr. Mascarenhas Oswald  
Dr. Kothari Namrata  
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