

INSTITUTE OF GASTROINTESTINAL SCIENCES
**DEPARTMENT OF MINIMAL ACCESS,
GI AND BARIATRIC SURGERY**

Laparoscopy in Gastrointestinal Cancers



From the Editors Desk



Dr. Ganesh Shenoy

Sr. Consultant - Minimal Access, GI and Bariatric Surgery

Dear all,

It's my pleasure, privilege and honour to bring out this newsletter of Department of Minimal Access, Gastrointestinal and Bariatric Surgery, Fortis Hospital Cunningham Road Bangalore. It gives a bird's eye view of the Advanced Laparoscopic procedures, Scientific activities and Training programs we have conducted in the past 3 months.

We now are a vibrant team with Dr BS Ramesh as Senior Consultant and Dr Sandeep as a Registrar in the department.

We as a team have special interest in performing Basic, Advanced and Newer Laparoscopic procedures for Hernia, Laparoscopy in GI malignancies, Laparoscopic Upper GI, Colorectal, HPB Surgeries and Bariatric surgeries. Our services cover entire gamut of Laparoscopic Hernia, GI oncology, Benign Gastrointestinal, HPB and Bariatric surgeries.

With the support of management, we have launched a training centre for Laparoscopic surgery called FIMAST: Fortis Institute of Minimal Access Surgery Training, with the aim and motto of training surgeons in the field of Laparoscopic surgery. Under FIMAST we are planning to conduct various training courses in the months and years to come. Many surgeons from across the country and abroad have shown keen interest in coming down to Bangalore to get trained under us in Laparoscopic surgery. This in turn will help the community in large. We conducted training program in Laparoscopic hernia surgeries in the month of March which was endorsed by Hernia Society of India, the National Chapter of Asia Pacific Hernia Society.

Patients safety and care are our prime importance and mantra while dealing with diagnosis and management of complex cases. With Fortis Hospital, Cunningham road owning state of the art facilities with infrastructure, technology and gadgets have made our life easier and safe in managing these cases.

We have a very good and experienced Anaesthesia and Critical care team which is very important in present day practice to manage complicated cases, team of well experienced Medical oncologists to take care of pre-operative assessment, neo-adjuvant and adjuvant therapy which may be required to patients suffering from GI malignancies, ensuring multidisciplinary team approach under one roof in managing GI malignancies. Team of Medical Gastroenterologist will go hand in hand in diagnosis and management of upper GI, Colorectal and Hepatobiliary and Pancreatic disorders.

I welcome your thoughts, suggestions and advice in improving our department so that we can serve the community better and make Fortis Hospital Cunningham Road a better place to manage basic and advanced Laparoscopic surgeries in the days to come.

I wish you all good health and look forward for us to remain gainfully connected.

Regards

Dr Ganesh Shenoy

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CASE 1: TOTALLY THORACOLAPAROSCOPIC ESOPHAGECTOMY FOR CARCINOMA ESOPHAGUS

45-year-old male patient with no co-morbidities was diagnosed to have locally advanced Carcinoma of Oesophagus. He received neo-adjuvant Chemotherapy and Radiotherapy. He was unable to take orally for nearly 4 months and was only on RT feeds during his neo-adjuvant treatment.

CT scan done after the completion of Chemotherapy and Radiotherapy showed an operable disease.

He underwent Total Thoraco-laparoscopic Esophagectomy under General Anaesthesia.

Thoracoscopic Esophagectomy was performed with patient in prone position with double lumen endotracheal tube and single lung ventilation. We could separate the oesophagus from the pericardium to which it was tethered. The entire oesophagus was mobilised from Thoracic inlet to Diaphragmatic hiatus using Thoracoscopic approach with 4 ports. Mediastinal lymph node clearance was also performed by this approach. An Intercostal tube was placed

After Thoracoscopic mobilisation of oesophagus, the patient was placed in supine leg-split position. Gastric conduit was created by Laparoscopic approach using Endo GIA staplers.

The specimen is delivered by a neck incision and resected. The Gastric conduit was mobilised and pulled up into the neck behind the sternum. Anastomosis was performed in the neck. A Witzel type Laparoscopic feeding Jejunostomy was also performed.

The patient was started on Jejunostomy feeds from 2nd post-operative day. Intercostal drainage tube was removed on 4th day and the patient was discharged on the 6th post-operative day. A CT scan performed on the 10th day did not show any evidence of leak and the patient was started orally.

The histopathology report of the resected specimen and lymph nodes showed complete pathological response.

Conclusions: Thoracolaparoscopic esophagectomy has the advantages of avoiding large and painful thoracotomy incision. Since the gastric conduit is also created by totally laparoscopic approach, abdominal incision is also avoided. Good oncological clearance can also be achieved with experienced skilful hands.



Thoracoscopic esophagectomy with patient in prone position



Thoracoscopy ports



Port positions and Intercostal tube



Ports for creation of gastric conduit



Specimen delivery from neck



Resected specimen



Scars: 14 days follow up

CASE 2: LAPAROSCOPIC D2 TOTAL GASTRECTOMY WITH ROUX-en-Y ESOPHAGOJEJUNOSTOMY FOR CARCINOMA STOMACH

35 year old male patient with no co-morbidities presented with pain abdomen and early satiety. On evaluation upper GI endoscopy showed features suggestive of Linitis Plastica, the biopsy of which showed Adenocarcinoma.

CT /PET CT scan showed a locally advanced disease. He received 4 cycles of neo-adjuvant Chemotherapy. CT scan done after the completion of neo-adjuvant Chemotherapy showed an operable disease.

He underwent Laparoscopic D2 Total Gastrectomy with Roux en Y Esophagojejunostomy under GA.

Five vessel clearance of Lymph nodes along the celiac axis was achieved. Esophago-jejunal anastomosis and jejuno-jejunal anastomosis was achieved using Endo-GIA staplers and hand sewn techniques. Five ports were used to accomplish this procedure by Laparoscopic approach. An Nasojejunal tube (NJ) was also placed at the end of the procedure. The specimen was retrieved through a small pfannelstein incision.

The patient was started on NJ feeds on the 2nd post-operative day and the patient was discharged on 5th post-operative day.

CT scan with oral contrast done on 7th post-operative day did not show any evidence of leak through the anastomosis. He was started on oral liquids followed by soft diet.

Histopathology showed features of Adenocarcinoma involving whole of the stomach with negative resected margins on the oesophagus and duodenum with no lymph node metastasis.

Conclusions: Laparoscopic Gastrectomy is associated with less pain, less bleeding and early return to work since it avoids large laparotomy incision. The magnification and the vision rendered by laparoscopy helps to clear the lymph nodes along the coeliac with precision resulting in safe oncological outcome.



Ports placed for the procedure



Final scar



14 days post op



Resected specimen

CASE 3: LAPAROSCOPIC EXTENDED LEFT HEMICOLECTOMY WITH SIGMOIDECTOMY WITH ASCENDING COLON TO RECTUM ANASTOMOSIS FOR SYNCHRONOUS COLON CANCER

Synchronous colorectal cancer refers to more than 1 primary colorectal cancer detected in a single patient simultaneously or within 6 months of the initial diagnosis. The reported incidence of synchronous colorectal cancers ranges from 2.3% to 12.4%.

60-year male patient with Diabetes mellitus and Hypertension presented with bleeding per rectum. On evaluation, Colonoscopy showed growth in the sigmoid colon and mid-transverse colon, the biopsy of which showed features of Adenocarcinoma.

CT scan showed no evidence of distant metastasis. Serum CEA was raised.

He underwent Totally Laparoscopic Extended Left Hemicolectomy with Sigmoidectomy with Anastomosis of Ascending colon to rectum. The entire right colon was mobilised laparoscopically using Cattell-Bursch manoeuvre so that the ascending colon can easily be pulled into the pelvis for anastomosis. This also ensures tension free anastomosis. The resection was performed using Endo-GIA staplers. The anastomosis between the ascending colon and the rectum was performed with combination of staplers and sutures. The entire specimen was delivered through the ileostomy site which was marked preoperatively.

A diversion loop ileostomy was performed at the end of the procedure.

Conclusion:

Diagnosis of the presence of synchronous colorectal cancers is important because, if overlooked, they can develop into advanced -stage metachronous cancer and usually require re-operation. Extensive resection is recommended as a safe treatment option to prevent metachronous cancer.

These extensive laparoscopic resections and anastomosis is safe and feasible in experienced hands.

This has all the advantages of minimally invasive surgery without compromising on the oncological clearance and safety.



Port placements with ileostomy/specimen retrieval site marked



Patient positioning during left side colon dissection



Specimen delivery through ileostomy site



Final picture



Resected specimen

CASE 4: CA ASCENDING COLON. LAPAROSCOPIC EXTENDED RIGHT HEMICOLECTOMY

55-year male patient, known case of Diabetes mellitus, Hypertension and IHD was evaluated for generalised weakness and anaemia.

Colonoscopy showed growth in the caecum /Ascending Colon, the biopsy of which showed Adenocarcinoma.

CT scan showed no evidence of metastatic disease. His Serum CEA levels were raised.

After complete pre-operative evaluation, he underwent Laparoscopic Extended Right Hemicolectomy with isoperistaltic side to side Iliotransverse anastomosis under GA. Two 10mm and Two 5mm ports were used to accomplish this procedure by Laparoscopic approach.

The specimen was retrieved through a 3 cm periumbilical incision using a wound protector. The side to side anastomosis was performed extracorporeally.

The patient was started liquids orally on 2nd post-operative day and was discharged on 5th day.

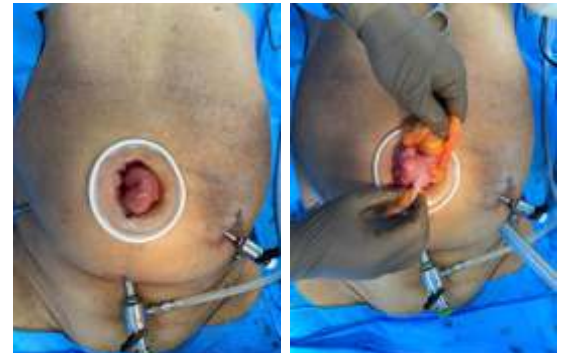
The histopathology of resected specimen showed Adenocarcinoma with no metastasis in the resected lymph nodes. He underwent adjuvant chemotherapy.



Patient positioning during the procedure



Periumbilical incision and ports



Specimen extraction



Resected specimen



Final scar

ACHIEVEMENTS

1. FALS HERNIA COURSE: KANYAKUMARI

Dr Ganesh Shenoy was invited as a faculty for the Fellowship in Advanced Laparoscopic Surgery course in Hernia of IAGES. This was held at Kanyakumari and was organised by SIVA hospital, Kanyakumari.

Dr Shenoy delivered lecture on Inguinodynia and was also a panelist in the panel discussion on Complications in hernia surgery.

2. WHAT IS IN THE CASE: HERNIA SOCIETY OF INDIA

Dr Ganesh Shenoy was invited as Faculty by Hernia Society of India during their first online meeting on the series called "What is in the case".

Dr Ganesh delivered lecture on Rare Hernias..."Psoas Hernia: Diagnosis and Management by TEP approach" on 1st January 2022.

3. INVITED LECTURE: ASI HOSUR

Dr Ganesh Shenoy was invited by Association of Surgeons of India - Hosur and Krishnagiri branch on 21st January 2022 to deliver a lecture during the inaugural ceremony of their first CME.

Dr Shenoy delivered lecture on Laparoscopic Hernia repair: Some Tips and Simple tricks. This was attended by 45 surgeons

4. FIAGES Course: TRIVANDRUM

Dr Ganesh Shenoy was invited as a Faculty for the Fellowship course of Indian Association of Gastrointestinal Endosurgeons (IAGES) on 25th -27th March 2022. This was organised by Saraswathy Hospital, Trivandrum, Kerala.

He delivered video lecture on Laparoscopic TEP Mesh Repair of Inguinal Hernia and demonstrated Laparoscopic Bilateral TEP Mesh Repair for Bilateral inguinal hernia during Live Operative workshop.

He was also the chairperson for session on Hepatobiliary pancreatic surgeries, examiner for Endotrainer sessions and also took a lead role in Meet the Professor sessions.

5. Young HSICON 2022, Kolkata

Dr Ganesh Shenoy was in the Organising committee of Young HSICON 2022. This was a landmark conference conducted by Hernia Society of India, at Hotel ITC Sonar and Bell Vue Clinic, Kolkata. This conference and live operative workshop on Hernia surgery was held on April 1st and April 2nd 2022.

Dr Ganesh Shenoy demonstrated Laparoscopic ETEP mesh repair for Inguinoscrotal hernia during the Live Operative Workshop which was attended by 500 surgeons across the country.

6. EXECUTIVE COMMITTEE MEMBER: HERNIA SOCIETY OF INDIA

Dr Ganesh Shenoy was unanimously elected as Executive Committee member South zone of Hernia Society of India, the National chapter of Asia Pacific Hernia Society.



FIMAST: Fortis Institute of Minimal Access Surgery Training

Patron



Dr. Vivek Jawali

Chairman - Cardiac Thoracic & Vascular Sciences,

Advisor



Mr. Anand Angadi

Facility Director, Fortis Cunningham Road

Director & Course Coordinator



Dr. Ganesh Shenoy

Sr. Consultant - Minimal Access,
GI and Bariatric Surgery

Organising Committee Chairman



Dr. BS Ramesh

Sr. Consultant - General
& Minimal Access Surgery

Laparoscopic Hernia Surgery Training Course: Basic ,Advanced and Innovative

Laparoscopic Hernia Surgery Training course was conducted at Fortis Hospital, Cunningham Road, Bangalore on 10th-11th March 2022 by Dr Ganesh Shenoy and Dr B.S. Ramesh.

It was a PACE program on Hernia surgery, a Medtronic initiative. This training course was endorsed by Hernia Society of India. Hernia Society of India (HSI) is the National Chapter of Asia Pacific Hernia Society with more than 1000 members. HSI is doing tremendous scientific activities and training programs across the country under the leadership of Dr Deepraj Bhandarkar as President, Dr Manish Bajjal as Secretary and Dr Randeep Wadhawan as Treasurer.

7 Surgeons from Bihar, Andhra Pradesh and Karnataka attended the course.

The course was inaugurated by Dr Vivek Javli, Chairman Cardiac sciences, Dr Patil ,Chief Anesthesiologist, Dr Manish Mattoo Vice President and by Anand Angadi.

This training course involved Live Operative Demonstrations and Video lectures. We had Live Operative Demonstrations of 8 Laparoscopic Hernia Surgeries: TEP, TAPP, ETEP for groin hernias, IPOM plus, TAPE, ETEP-RS, SCOM for Ventral hernias and Laparoscopic Nissen's Fundoplication for Hiatus Hernia.

The operative demonstrations were relayed live to all surgeons through MICROSOFT TEAMS platform. This had nearly 1500 viewers.

Dr Ashwin Tangavelu, Executive Committee Member Hernia Society of India, delivered lecture on "Laparoscopic TAPP repairs for Groin and Ventral hernias" and shared his experience with the surgeons.

FIMAST: Fortis Institute of Minimal Access Surgery Training



TRAINING PROGRAMS (Endorsed by Hernia Society of India)

- Laparoscopic Hernia Surgery Training course: April 29th - 30th
- Laparoscopic Hernia Surgery Training course: July 22nd - 23rd



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