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Fortis
Cunningham Road

INSTITUTE OF GASTROINTESTINAL SCIENCES

DEPARTMENT OF MINIMAL ACCESS, GI AND BARIATRIC SURGERY

RARE CASES AND PROCEDURES

From the Editors Desk

Dr. Ganesh Shenoy
Additional Director: Department of Minimal Access, GI and Bariatric Surgery

Dear all

It's my pleasure, privilege and honour to bring out this 3rd edition of the newsletter from the Department of Minimal Access, Gastrointestinal and Bariatric Surgery, Fortis Hospital Cunningham Road Bangalore. It gives an overall view of the Advanced Laparoscopic procedures, Scientific activities and Training programs we have conducted.

We are a vibrant team of five now with Dr B.S Ramesh and Dr Nawab Jan as Senior Consultants and Dr. Karthik Sivam and Dr Sanjay Natarajan as a Registrars in the department.

As a team, we 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. Patient's safety and care are our main 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.

With the support of management, we have conducted three training programs in Laparoscopic hernia surgeries last year. These training programs were attended by surgeons across the country and abroad. Under FIMAST (Fortis Institute of Minimal Access Surgery Training), 45 surgeons were trained last year in basic and advanced laparoscopic hernia surgeries. All the training programs were endorsed by Hernia Society of India, the National Chapter of Asia Pacific Hernia Society.

Under FIMAST, we started Fellowship course in Minimal Access Surgery of 9 months' duration. We are also being invited as faculty for various National conferences to demonstrate laparoscopic surgeries during the live operative workshops, give lectures, for panel discussions and debates. We have had 5 publications last year in peer reviewed journals.

We have a very good, supportive and highly 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, team of Medical Gastroenterologist going hand in hand in diagnosis and management of upper GI, Colorectal and Hepatobiliary and Pancreatic disorders. This ensures multidisciplinary team approach under one roof in managing GI 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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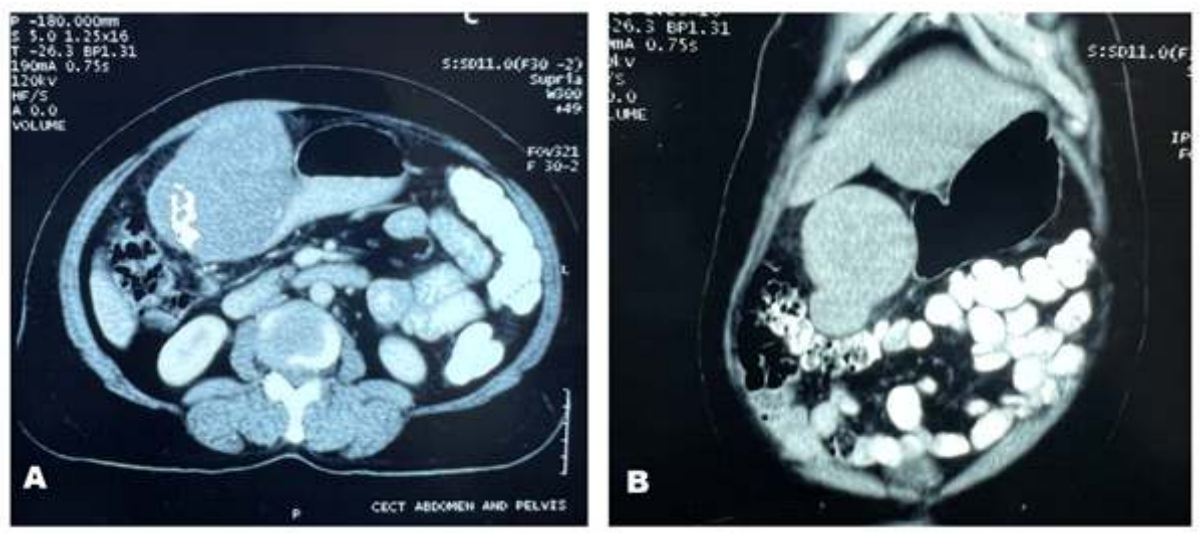
CASE 1: LAPAROSCOPIC RESECTION OF RARE LARGE SPINDLE CELL TUMOR OF STOMACH – SCHWANNOMA

Schwannoma of the stomach accounts to 0.2% of gastric neoplasms. They are mostly benign, slow growing and very often asymptomatic. Diagnosis can only be established by histopathology and immunohistochemistry(IHC) of the resected specimen. The best treatment option remains complete resection with negative margins

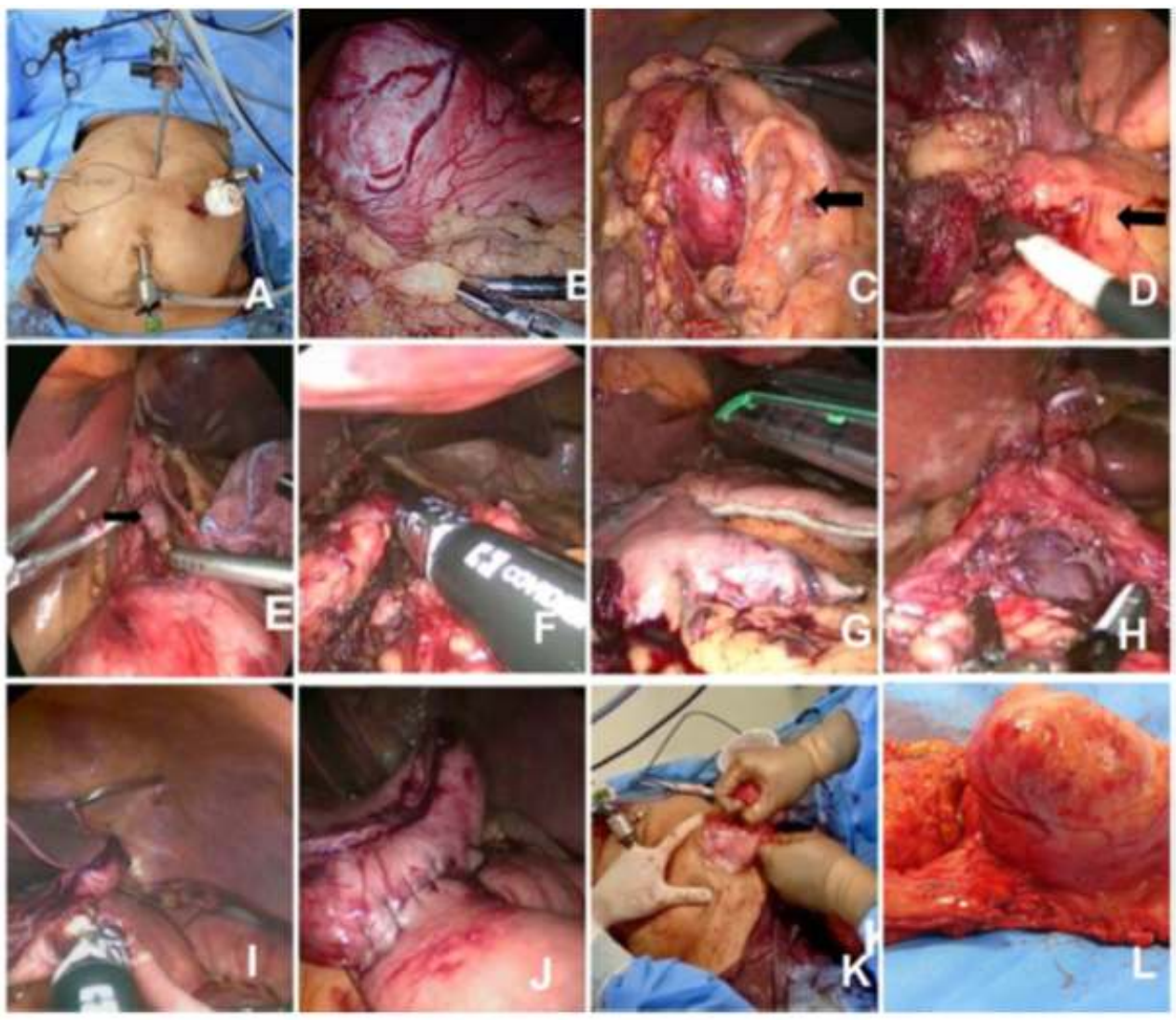
52-year-old lady, known diabetic presented with pain abdomen, mass per abdomen and occasional non bilious vomiting. On examination, there was a mass in the epigastrium extending to right hypochondrium. Contrast Enhanced Computerized Tomography (CECT) of abdomen showed 12cm x 10cm x 10cm heterogeneously enhancing exophytic lesion arising from antro-pyloric region of the stomach. The lesion had calcification and was compressing the first part of duodenum, mid -transverse colon and the head of pancreas



A: Large tumor arising from antro-pyloric region of the stomach **B**: Tumor adherent to transverse colon

Endoscopy showed a globular lesion with central umbilication. Serum CEA was normal. With the above findings a provisional diagnosis of Gastro Intestinal Stomal Tumor (GIST) was made.

The patient was planned for Laparoscopic resection. Six ports were used.



A. Port placements. **B.** Tumour arising from Antro-pyloric region **C.** Tumour adherent to transverse colon (black arrow). **D.** Adherent to Pancreas head(black arrow). **E.** Lymph nodes over coeliac axis(black arrow). **F.** Stapled transection of D1. **G.** Stapled transection of Body of stomach **H.** Completed D2 Gastrectomy with staple line of D1 and Stomach. **I.** GJ with stapler J. GJ reinforced with intracorporeal sutures. **K.** Specimen extraction through Previous scar. **L.** Final specimen.

The patient was started liquids orally on the 2nd post operative day and semisolid diet on the 4th day. The abdominal drain was removed on the 5th day and the patient was discharged.

Histopathology of the resected specimen showed features of benign spindle cell tumor of the stomach The resection margins were free of tumor and 20 lymph nodes which were isolated were also reactive.

IHC was positive for S-100 protein and was negative for CD117, DOG 1, H. Caldesmon, SMA and hence final diagnosis of Schwannoma was made.

At 10 months follow up there were no recurrence.

Laparoscopic resection of such large gastric tumor is safe, effective and feasible in experienced hands with sound anatomical knowledge.

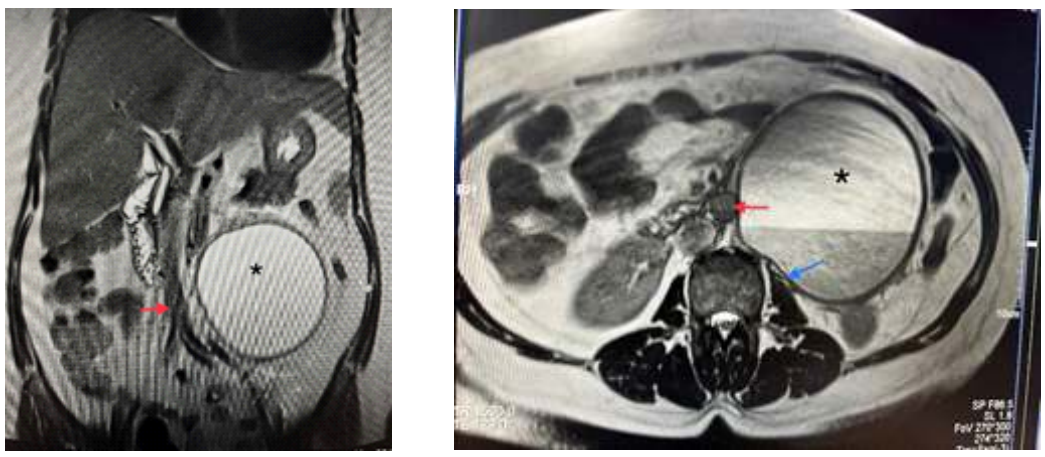
CASE 2: LAPAROSCOPIC MANAGEMENT OF AN ADULT ABDOMINAL CYSTIC LYMPHANGIOMA PRESENTING AS A RETROPERITONEAL MASS WITH SEPSIS

Abdominal cystic Lymphangioma is a rare entity. Primary retroperitoneal neoplasms are rare and constitute only up to 0.1 – 0.2% of all malignancies.

A 52 year old female presented to us with complaints of swelling over the abdomen for the past 6 months which was associated with diffuse abdominal pain. The swelling rapidly progressed in size over the last 2 weeks and was associated with fever.

On examination, the patient had a pulse rate of 110/min. There was a vague swelling occupying the entire epigastrium, left hypochondrium and umbilical regions. Complete hemogram revealed an elevated leucocyte count of 18,000/µL and the rest of the blood parameters were normal.

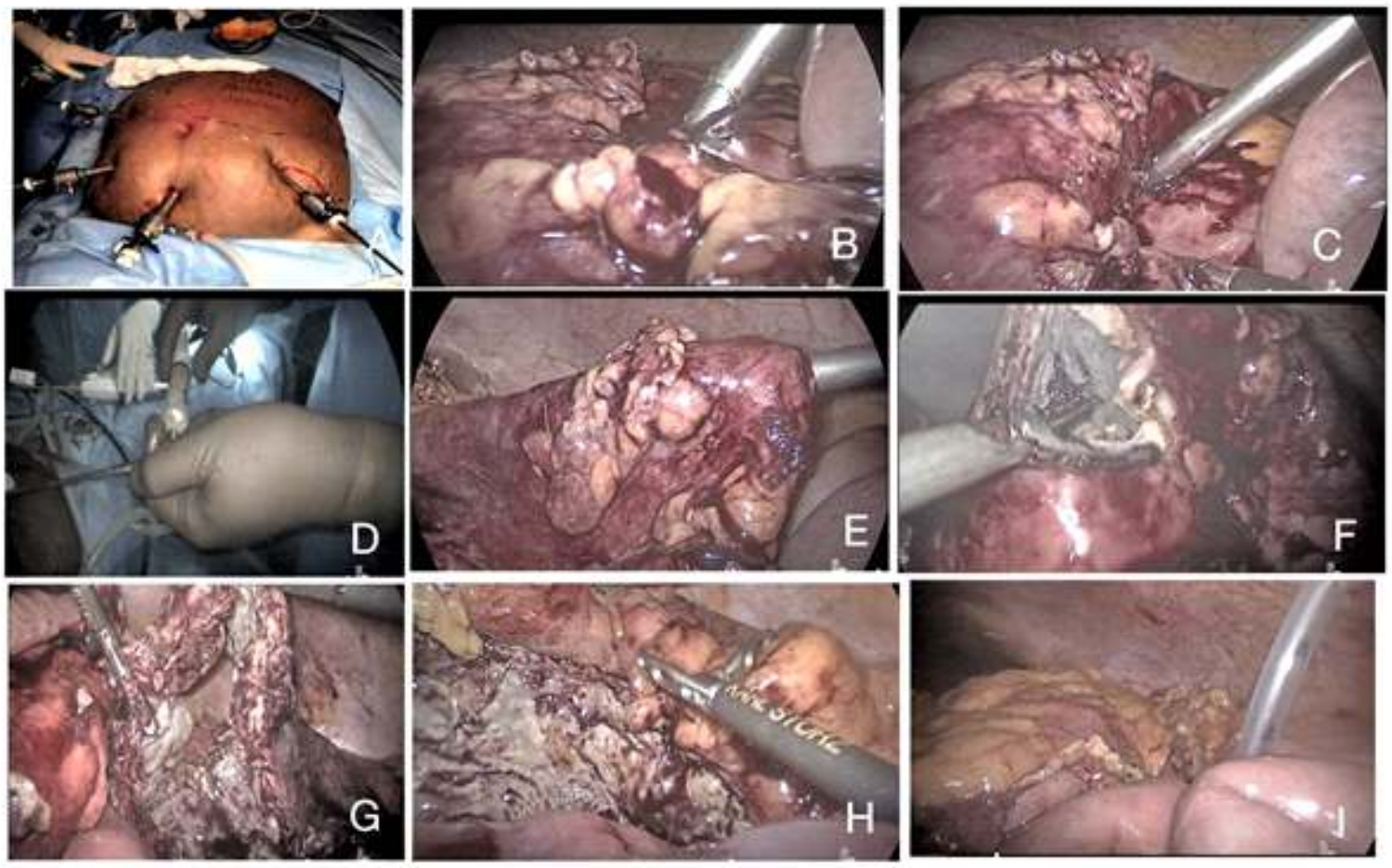
MRI abdomen was done which revealed a retroperitoneal cystic mass (Figure 1A) which was adjacent to the Aorta and compressing the Left Renal vein, Left Ureter resulting in left hydroureteronephrosis. The posterior wall of the cyst was intimately adherent to the Aorta, Left renal vein and Lumbar veins(Figure 1B). The cyst wall was thick- 0.66cm and enhancing, but there was no gross extension to adjacent organs and no features of malignancy.



1A: MRI showing the thick walled cyst(*) measuring 10.9 x 12.6 cm displacing the Aorta(Red arrow) to the right

1B: Axial section showing the posterior wall of the cyst(*) which is intimately adherent to the lumbar veins (blue arrow) and displacing the Aorta (red arrow)

The patient was resuscitated with IV fluids and was started on broad spectrum IV antibiotics, analgesics and supportive care. The patient underwent Bilateral DJ stenting following which the patient was taken up for laparoscopy which revealed a huge cystic swelling abutting the mesentery of the transverse colon, splenic flexure and descending colon with dense omental adhesions to the anterior and lateral cyst wall.



A Port positions

B Trocar entry into the cyst cavity

C Aspiration of contents using suction cannula

D Sample taken using syringe for culture & sensitivity

E Complete aspiration of cyst contents

F Marsupialization of cyst wall using Harmonic shears

G Exposed cyst cavity

H View after Complete marsupialization

I Placement of Drain in the cyst cavity

The specimen was extracted using an endobag by upsizing the 5mm port to a 10mm port. After achieving complete hemostasis, a drain was placed into the abscess cavity and the ports were closed.

The patient was discharged on 5th post operative day.

Histopathology showed fibrous cyst wall with dense inflammatory infiltrates foamy macrophages, hemorrhage, lymphoid aggregates with no features of malignancy. The DJ stents were removed after 4 weeks. Follow up at 6 months was uneventful

Laparoscopic management of huge retroperitoneal cyst is technically challenging but possible with expertise and sound anatomical knowledge. Preoperative planning is paramount to the success of the procedure.

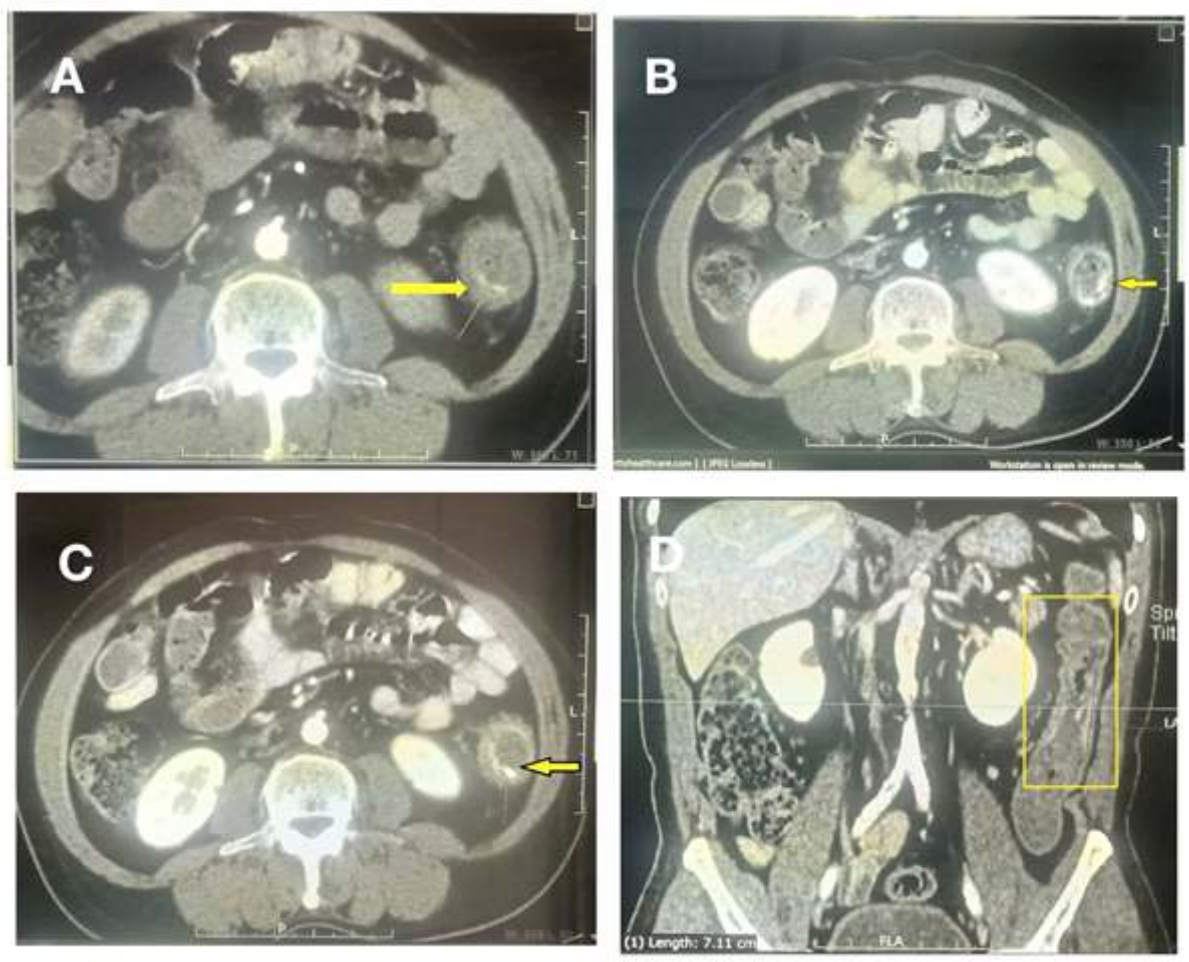
CASE 3: EMERGENCY LAPAROSCOPIC LEFT HEMICOLECTOMY FOR TUBERCULAR STRICTURE OF DESCENDING COLON PRESENTING AS MASSIVE HAEMATOCHEZIA : A RARE CASE REPORT

TB of the gastrointestinal tract commonly affects ileum and iliocaecal junction.It usually presents as sub-acute intestinal obstruction. Isolated primary tuberculosis (TB) of the colon is uncommon. It constitutes 9.2% of all abdominal TB.The indication for surgery is either acute obstruction or perforation. Obstruction is caused by stricture in which usually malignancy is suspected in view of rarity of involvement of isolated segment of colon by TB. Massive haemotochezia is very rare.

A 67 year old male with no co-morbidities presented to emergency with history of bleeding per rectum, pain abdomen and giddiness since one day. There were no such episodes of bleeding in the past, weight loss or loss of appetite.

On examination, he was pale with stable haemodynamics .Per rectal examination revealed frank blood. Haematological investigations were normal except hemoglobin 8.3 (13.0 - 17.0 g/dl) hematocrit 25.5.

A colonoscopy done revealed frank blood in the descending colon and proximal evaluation was not possible. Contrast enhanced CT(CECT) abdomen showed a stricture involving 7 to 10 cm segment of descending colon just beyond the splenic flexure with narrowing of lumen and active contrast extravasation and pooling of the involved segment. There was also pericolic fat stranding and enlarged pericolic lymph nodes(Figure 1-A to D) In view of age of the patient , hematochezia and CT findings showing a stricture , a preliminary diagnosis of malignancy was made. His serum levels of carcinoembryonic antigen (CEA) were within normal limits.



A.Venous phase showing intramural congestion and thickening of the descending colon. **B & C**. Early Arterial phase and Late Arterial phase – extravasation of blood. **D**. sagittal section – showing irregular mucosal and submucosal thickening with extravasation and pooling of blood

He was admitted in the intensive care unit and supportive measures were started. He received 2 units of packed blood cells. He continued to have haemotochezia with drop of haemoglobin to 7 gm%.A decision was taken for emergency laparoscopic surgery after discussion in detail with the relatives. The possibility of conversion to open surgery was also explained. He underwent Emergency Laparoscopic Left Hemicolectomy with medial to lateral, vessel first approach with lymph node clearance.Time taken for surgery 115 minutes. Patient was stable throughout the procedure.

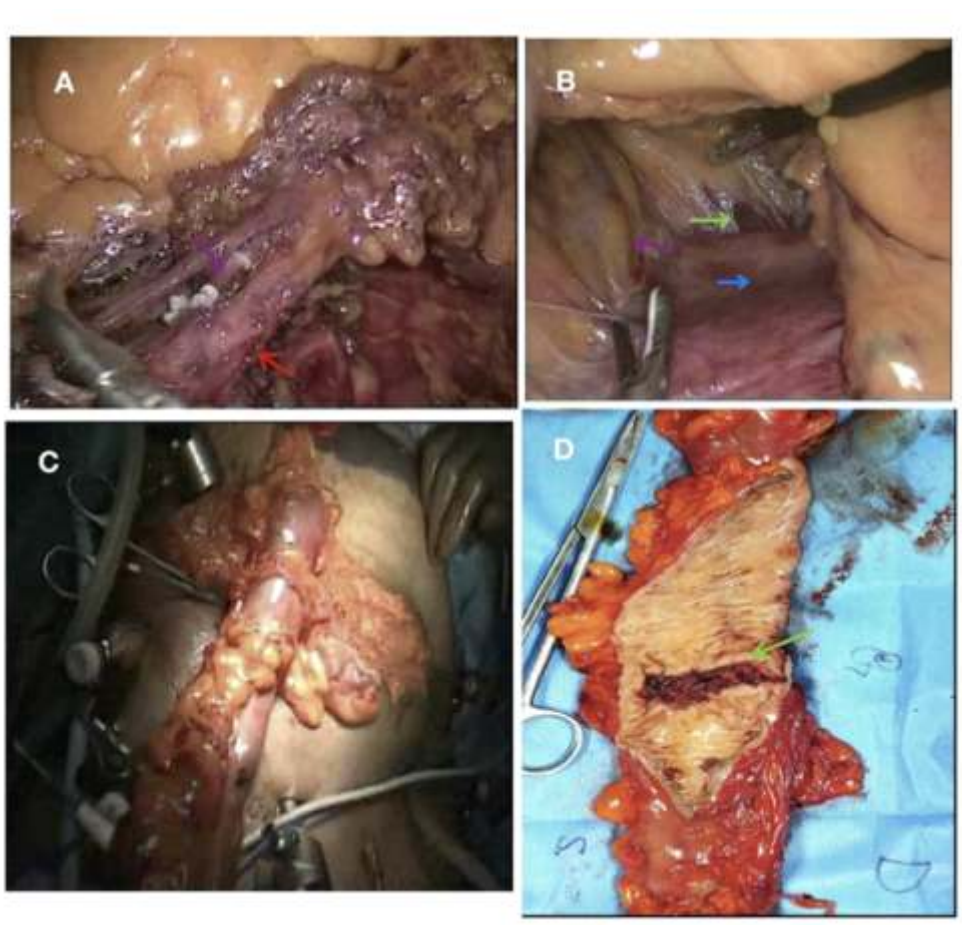


FIGURE 2: A.Clipping of Left Colic artery arising from Inferior Mesentric Artery (IMA) . Red arrow IMA, Pink arrow Left Colic artery B. Splenic flexure mobilisation : Medial to Lateral approach .Blue arrow Intact Gerotas fascia, Pink arrow Transverse mesocolon , Green arrow Splenic flexure C.Specimen retrieval through periumbilical incision. D. Specimen cut open :Green arrow stricture with evidence of bleed

Patient was started on oral liquids on 2nd post operative day (POD) and soft diet on the 5th POD. Drain was removed and was discharged on the 5th POD. Histopathology revealed caseating tuberculous colitis- descending colon with caseating tuberculous lymphadenitis. (Figure 3 A to D) The patient was started on Anti tubercular therapy. Follow up at 6 months was uneventful

A efficient team surgeons, anaesthetists, nursing staffs ,technicians are required to perform such major cases by laparoscopic approach.

With increasing experience, Emergency Laparoscopic Left Hemicolectomy is safe and feasible in emergency settings.

High index of suspicion of TB is required in Indian subcontinent whenever a patient presents with massive haematochezia

CASE 4: OBSURE GI BLEED : LAPARO-ENTEROSCOPY AS A TOOL FOR DIAGNOSIS AND MANAGEMENT

Laparo enteroscopy involves the simultaneous performance of laparoscopy and enteroscopy to aid in the diagnosis. We have used normal Endoscope as Enteroscope . There are very few modalities available to diagnose the problems involving small bowel.

65 year old lady known hypertensive presented with frank bleeding per rectum (Haematochezia) to the emergency department.

She has been having this complaint on and off since 7 years. She was also admitted twice in the ICU with shock which was managed by blood transfusion s and other supportive measures.

Upper GI endoscopy done earlier was normal. Colonoscopy done showed a polyp in the ascending colon.Polypectomy was done thinking to be a cause of bleed . CT Angiogram done during the cause of bleed earlier was normal and failed to demonstrate any active bleeding sites in the GI tract.

The patient was admitted in ICU. A repeat CT Angiogram done failed to show any evidence of active bleed. She was planned for Laparoenteroscopy.

On Diagnostic Laparoscopy we could see dark coloured fluid in the small bowel loops which gave us an idea that the bleeding may be from small bowel pathology.

Terminal ileal loop 40 cm from ileo caecal junction was hitched to the abdominal wall and enterotomy was performed. A 12 mm port was passed into the ileal lumen through the enterotomy site under laparoscopic guidance. The normal Endoscope was then passed through the 12 mm trocar into the ileal lumen.

CASE 4: OBSURE GI BLEED : LAPARO-ENTEROSCOPY AS A TOOL FOR DIAGNOSIS AND MANAGEMENT

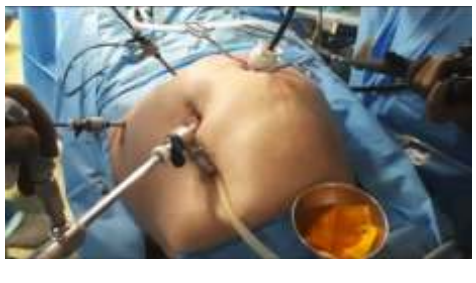
The small bowel was examined both proximally and distally. The surgeon performing laparoscopy aided by pleeting the intestines over the endoscope. The endoscope was also passed till the mid transverse colon to rule out any other associated pathology.

Upon doing this team work involving our medical gastroenterologist, we could find two arteriovenous malformations 20 cm and 25 cm from the ileo caecal junction which showed signs of recent bleed .

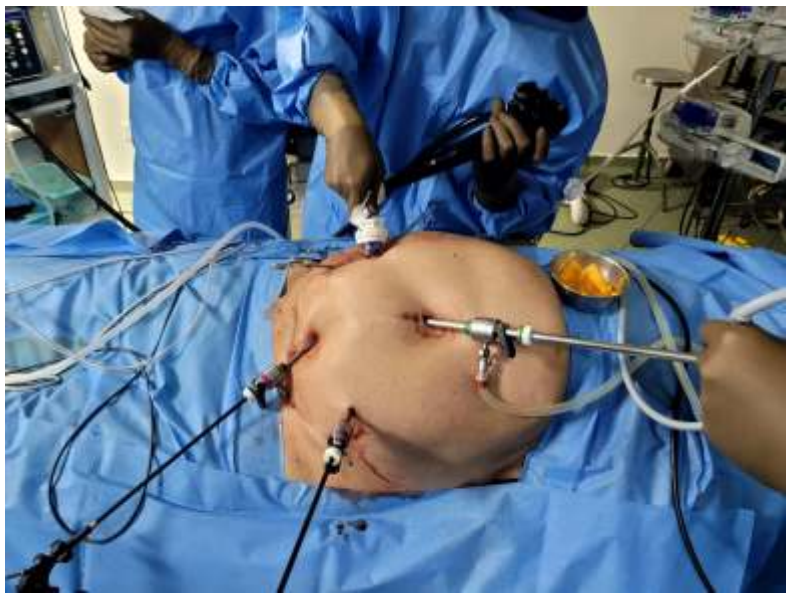
The involved ileal segment was resected and side to side isoperistaltic anastomosis was performed.

The patient was started orally on the 2nd post opday and was discharged on 5th day .At 6 months follow up the patient did not have any further episodes of bleeding PR.

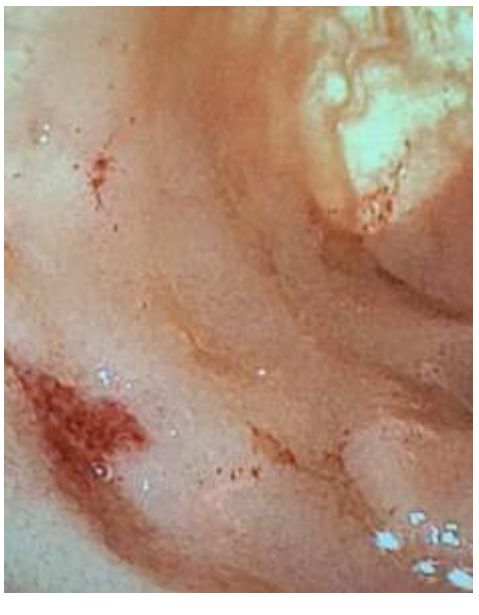
Laparoenteroscopy



Simultaneous Laparoscopy and Enteroscopy



Surgical and Medical Gastroenterologist as a TEAM



Lesion found on Enteroscopy

FIMAST: Fortis Institute of Minimal Access Surgery Training

Patron

Dr. Vivek Jawali
Chief of Cardio Thoracic Vascular Sciences

Advisor

Mr. Anand Angadi
Facility Director, Fortis Cunningham Road

Director & Course Coordinator

Dr. Ganesh Shenoy
Additional Director:
Department of Minimal Access,
GI and Bariatric Surgery

Organising Committee Chairman

Dr. BS Ramesh
Sr. Consultant - General
& Minimal Access Surgery

FIMAST: Fortis Institute of Minimal Access Surgery Training

Laparoscopic Hernia Surgery Training Courses conducted in 2022

March 10th-11th

April 29th-30th

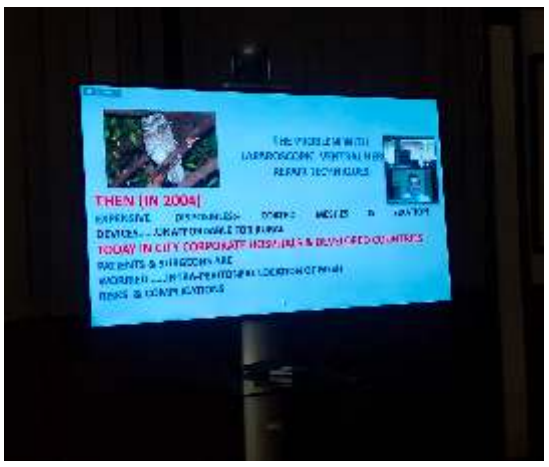
July 22nd-23rd

These training programs involved Live Operative Demonstrations and Video lectures. The video lectures were delivered by internationally renowned surgeons from our country. Our training programs are endorsed by Hernia Society of India. These training programs were attended by surgeons from all parts of our country, Iraq, Bangladesh and Kenya. There was active involvement of the trainees in the OT. We have trained 45 surgeons in basic and advanced laparoscopic hernia surgery last year.

All the participants received a Certificate and Pen drive containing whole gamut of laparoscopic hernia surgeries.

This HSI endorsed course was a well received and was appreciated by all the participated Surgeons.











ACHIEVEMENTS

1. Dr Shenoy was an invited Faculty during Sunshine Hernia Fest on 1st October 2022 . This was organised by Sunshine Hospital at Margoan, Goa. Dr Ganesh Shenoy demonstrated 5 basic and advanced laparoscopic hernia surgeries during the live operative workshop. He also delivered a lecture on 3 port ETEP/TAR during this meeting .

2. Best Doctor Award by “Wall of Fame Prestigious wards” on 9th October 2022.

Dr Ganesh Shenoy received the best doctor award by an NGO Wall of fame on 9th October 2022 for his services in the field of Laparoscopy surgery and also training surgeons in laparoscopic surgery .

3. Invited faculty for FALS-Hernia Course by IAGES conducted at MGM Hospitals Chennai October 14th-16th 2022. Dr Ganesh delivered lecture on “Laparoscopy in Emergency Inguinal hernia “

4. Dr Ganesh Shenoy was invited as a Moderator for TAPP repair for hernia : tips and tricks. Online “Spendid Surgery” series by Learning General Surgery on October 28th 2022.

5. Hiatus Hernia Workshop : Dr Ganesh was invited as a faculty for Live Operative Demonstartion during “ Hiatus Hernia Workshop “ organised by Gurjar Hospital,Indore on 6th November 2022.

Dr Shenoy demonstrated 2 Laparoscopic Nissens Fundoplication and 1 Laparoscopic Toupet Fundoplication

6. Hernia Conclave : 3rd -4th December 2022, Choitram Hospital, Indore.

Invited faculty during live operative demonstration . He demonstrated ETEP-RS REPAIR for Ventral hernia . He was also the Panelist for Panel discussion on “ Not your usual hernia case”.

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