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General Surgery

OVERVIEW OF RICHTER'S INGUINAL HERNIA WITH AN ORIGINAL INTRAOPERATIVE EXPERIENCE

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ABSTRACT

Aim &Objective– Insouciance of thickened hernial sac may leads to the complications which progresses to lose a life of the patient. The mortality and morbidity rates can be reduced by having a keen knowledge on the clinical diagnosis of long standing inguinal hernia.

Material and method – In a year of covid pandemic (December 2020-January 2021) 56 cases of inguinal hernia is selected for study giving an emphasis on Richter's hernia or partial enterocele. Patients with ventral hernia, femoral hernia, with severe comorbidities ie- bronchial asthma, coronary artery disease were excluded.

Result- Having male preponderance in 56 inguinal hernia cases 5 of them got superficial surgical site infection whereas rest of them have ECOG performance index of 1. The schematic flow chart on approach to Richter's inguinal hernia has been proposed

Conclusion- It's always better to go for exploratory laparotomy in a long standing case of hernia where history of intermittent reducibility is present. Therefore, visualizing the content of thickened sac is very important in order to have a healthy recovery of the patient.

KEYWORDS : Hernia, Richter's hernia, Enterocele.

INTRODUCTION-

August Gottlich Richter, 1785 has popularized the Richter hernia which is seen very rarely and associated with grave clinical sequelae. It is most commonly seen in the elderly age group with slightly female preponderance .Its location is most common in femoral (36-88%) followed by inguinal canal (12-36%).[1]

The clinical signs and symptoms varies from patient to patient .It ranges from the abdominal pain, bloating, malaise, fever ,nausea, vomiting, ileus to obstruction, strangulation ,gangrene and fistula formation.[2] As there is a progressive ileus it's always difficult to diagnose Richter's hernia and chance of mortality increases from 20-60%.[3]

Gold standard approach to manage Richter hernia is preperitoneal followed by laparotomy, resection in case of perforation .Here, this paper discusses about a 12 year long standing case of Inguinal Richter's hernia along with the literature review.

MATERIALAND METHOD –

In a year of covid pandemic (December 2020-January 2021) 56 cases of inguinal hernia is selected for study giving an emphasis on Richter's hernia. Patients with ventral hernia , femoral hernia, with severe comorbidities i.e- bronchial asthma ,coronary artery disease were excluded.

Intraoperative Experience- In a year of covid pandemic we came across 12chidren and 43 adult patients of inguinal hernia with a male :female-4.5:1 and mean age ranges from 6months - 76 years . Adult patients have a history of reducible swelling ranging from 8years to 4months with none of them presented with feature of obstruction or strangulation . Childrens were treated by herniotomy and adults by mesh hernioplasty. 50 patients were discharged on post operative day 4 without any post operative complications, 5 had superficial surgical site infections which was treated by broad spectrum antibiotics and regular dressing and discharged on post operative day 10.

With a pool of 56 operated cases of inguinal hernia we encountered a male patient, 72year old who presented with chief complaints of pain, nausea and irreducible swelling in the left groin with no obstipation for 2days. Patient had past history of reducible inguinal swelling for 12years with 4episodes of pain and irreducibility in 2year span .Every time swelling got reduced after 2-3 days manually when patient takes only liquid diet. There is no history of systemic disease and any surgical intervention. No history of addiction to alcohol and smoking. At this time when patient didn't able to reduce it and pain increases presented in a casualty with no features of obstruction.

On examination- abdomen was soft, non- tender, no distension, bowel sound present .Inguinal canal – right side swelling of 2x1cm with positive cough impulse present, Left side - Mild tender soft swelling of 4x2cm seen with absent cough impulse and no overlying skin changes. Hernia was not reduced by taxis. Patient was haemodynamically stable. Ultrasonography of whole abdomen shows – bilateral inguinal hernia with left inguinal shows thickened hernial sac . He was planned for exploration of left side hernia under spinal anaesthesia . Patient's inguinal canal exploration done where protruded thickened hernial sac with dense adhesions were present (Fig1). It was difficult to get the complete sac or reduce it due to adhesions .In the lieu to know the content of it below umbilicus exploratory laparotomy was done and gangrenous distal ileum with dilated distal bowel and 1/3rd part of bowel circumference was found tightly nibbed into the internal ring and when separated was found gangrenous (Fig2).Excision of the gangrenous portion and ileostomy (Fig3) was performed along with excision of the sac and abdominal wall repair done.

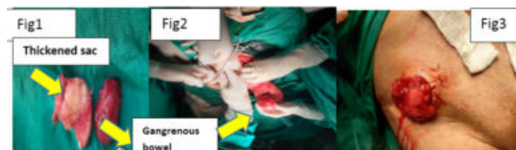


Fig 1- shows thickened hernial and the excised portion of the gangrenous bowel , Fig 2- part of circumference of bowel loop is gangrenous suggestive of Richter's hernia, Fig 3 –ileostomy

DISCUSSION –

Hernia is a protrusion of whole viscus or part of a viscus through the wall that contains it .[4] Based on the content i.e part of circumference of small bowel special type of hernia is named as Richter's hernia. It, being a rare entity is characterized by protrusion of antimesenteric surface of bowel into any abdominal hernia.[5] Most commonly seen in the age group of 60-80 years with femoral ring as a most common location. In 10% of cases strangulation is found. Features of obstruction is seen very rarely but it progresses to gangrene very rapidly.[5] Owing to delay in diagnosis, lengthening of preoperative period and intraoperative resection of bowel leads to complication and increases the rate of mortality and morbidity rates which impacts the quality of life.[7]

As no definitive clinical presentation or specific investigation is noted till now hence it's difficult to diagnose it .Literature shows that atypical presentation like groin abscess, spontaneous fistulae formation[8] or any procedures[9,10] (eg- colonoscopy) are related to Richter's hernia.

Therefore it's always important to keep Richter's hernia at the back of the mind while operating any atypical presentation of hernia pre or intra operatively.

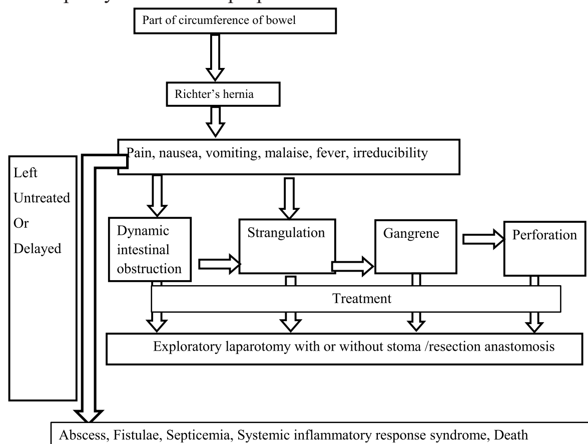
To operate such cases it's always better to do midline exploratory laparotomy in order to visualize the bowel loops. Only inguinal canal exploration in such a long standing case of hernia with history of intermittent irreducibity won't suffice and it would lead to intra-abdominal abscess, bowel perforation, fistulae formation and patient may land up in systemic inflammatory response syndrome and ultimately mortality.

RESULT-

Overview on Richter's hernia has been depicted in the flow chart A. The patient discharged in an ambulatory condition with ECOG performance index of 1 and functional ileostomy on post-operative day 5. Among 55 patients of inguinal hernia there was male preponderance with ECOG index of 1 having minimal risk of infection.

CONCLUSION –

Timely surgical intervention in case of hernia will decrease the rate of complication as well as improves the mortality rate. It's always good to take any groin swelling in a serious note so that unnecessary operative procedures can be avoided and traditional herniorrhaphy & hernioplasty can serve the purpose.



Flow chart A–Approach to Richter's Hernia

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