Research Paper

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A case report of abdominal wall abcess due to strangulated epigastric hernia

Medical Science

KEYWORDS :

Dr.Ronak Desai

Resident in General Sugery) Surat Municipal Institute of Medical Education & Research Surat ,Gujarat

Case Report : Eighty year old female presented with complain of swelling in epigastrium, vomiting , fever.Examination shows swelling in epigastrium which was no cough impulsive, irreducible & mild tender.USG suggestive of obstructed hernia.Patient was taken in OT .Intraoperatively there is a pus pocket between peritoneum and rectus muscle .Then abcess was drained and abdominal wall reconstruction was done.

Haematological analysis: leucocytosis and neutrophilia
Biochemical analysis: unremarkable
X ray abdomen : unremarkable
USG abdomen : Approximately 2.6 cm size defect in abdominal wall through which omentum and bowel loops coming out in epigastric region possibility of obstructed/strangulated hernia.

Operative procedure :

Patient was taken for exploratory laparotomy by upper midline incision as per the clinical and USG findings.There was a pus pocket of size approximately 3cm by 2 cm size .It was between peritoneal layer and rectus muscle.Posterior rectus sheath and some part of rectus muscle were sloughed out.There was infected part omentum,too.Omentum was coming out from defect in linea alba.Pus was drained out, sloughed out portion was debrided and omentectomy of infected omentum was done first.As there was a infected area around the defect , the decision was not to put a mesh (chances of mesh infection and there by recurrence of hernia is very high) and do anatomical reconstruction of abdominal wall.Vaccum drain was placed.

Post operative Management :

Patient was started orally as bowel sounds were present and stool and flatus were passed on first post operative day.Drain output was measured for 48 hrs.Drain was removed after 48 hrs as output was not significant.Injectable antibiotics and dressing given to the patient.Patient was dischared on sixth post operative day as there were no compliations and on tenth post operative day stitch was removed.

Discussion :

Epigastric hernias protrude through the linea alba and occur most commonly above the umbilicus. The hernias are usually small (15 to 25 mm in size). They are more common in men than inwomen, and the most commonly affected age group ranges from 20 to 45years.have suggested that epigastric hernias occur secondary to a single midline pattern of tendinous fiber decussation from all the strata of the anterior and posterior rectus sheaths. Insufficient fiber decussation at the linea alba may result into epigastric hernia development. Many studies have attempted to evaluate biopsies of the linea alba for further biomechanical study. The team of Korenkov in Germany , using 93 cadavers trying to check Askar's theory about the different levels of decussation in the linea alba.They could not confirm his classification, however. Instead, they proposed a new classification dividing the linea alba into three types according to the thickness of the found fibers: the weak, the intermediate, and the compact types,with only the weak type predisposing to an epigastric hernia. In this study, special concern was also given to the fibers of the rectus sheath, which have a rather complicated structure with many different places of origin. Lang et al. have suggested the vascular lacunae hypothesis as a cause of epigastric herniation.In this hypothesis, vascular lacunae are formed when small blood vessels (which run between the transversalis fascia and the peritoneum) perforate the linea alba, resulting in a space between the peritoneum and the fascia. A fascial defect is created, and the defect enlarges to an epigastric hernia over a period of intermittent straining. Some clinical observations support this hypothesis. However, the actual etiology of epigastric hernias is still under investigation.Surgical repair methods for epigastric hernias are frequently revoluntionary in nature.In epigastric hernia mostly the extraperitoneal fat but omentum can be there and get obstructed give sequel like formation of abcess in abdominal wall. This female may have long standing history of epigastric hernia which left untreated and gets strangulated by the time.Due to interruption in vascular supply,there is congestion of bowel loops and inflamed omentum, there is release of toxic fluid which was infected later and pus pocket formed between peritoneum and muscle. These hernias painful even when the swelling is the small size o due to the fatty contents becoming nipped sufficiently to produce partial strangulation. The pain may mimic that of a peptic ulcer but symptoms should not be ascribed to the hernia until gastrointestinal pathology has been excluded. A soft midline epigastric swelling can often be felt more easily than it can be seen. It may or may not be locally tender. It is unlikely to be reducible because of the narrow neck. It may resemble a lipoma.

Conclusion :

Long standing history of Epigastric swelling without cough impulse and with irreducibility can be lipoma ,gastric malignancies but diagnosis of obstructed epigastric hernia should kept in mind and require proper history ,signs and symptoms,clinical examination and at last but not the least imaging studies to reach the proper diagnosis and pathophysiology of the disease and there by management of the patient.

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