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A CASE REPORT ON GALL BLADDER PERFORATION IN PAEDIATRIC PATIENT

General Surgery

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KEYWORDS

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INTRODUCTION

Gall bladder perforations after cholecystitis are usually seen in elderly patients (> 60 yrs) and a very rare in Children The clinical and radiological signs of gallbladder perforation are frequently hazy and are easily confused with bowel perforation. A uncommon complication of cholecystitis called gall bladder perforation (GBP) often affects youngsters with typhoid fever.. The cystic duct is perforated when it is blocked (most frequently by a calculus), which results in an increase in intraluminal pressure from the retention of intraluminal secretion. acalculous cholecystitis and ischemia of the gall bladder wall causing spontaneously elevated blood pressure. Common predisposing factors include infections, cancer, trauma, medicines (such corticosteroids), and malignancies. The fundus is the area of the body that is the furthest from the blood supply, making it the most likely area to experience perforation.

As soon as two days following the commencement of acute cholecystitis, or a few weeks later, the gall bladder can perforate.. An important first step in the treatment of gall bladder perforation is early surgical intervention. When a patient exhibits symptoms that are suggestive of bowel perforation, even though the diagnosis of gall bladder perforation is difficult to predict clinically, it is frequently thought that the patient has bowel perforation.Peritonitis with perforation Treatment normally just requires a cholecystectomy and, if necessary, peritoneal lavage to clear any abscesses that may be present. Acute, gangrenous, and/or perforated cholecystitis, as well as simple cholecystitis, can both be treated by laparoscopic cholecystectomy.

CASE REPORT

A 4-year-old male child without any known medical comorbidity presented to the emergency room with generalized abdominal pain, inability to pass stool in 2 days, associated fever and non-bilious vomiting for 3 days. the patient was febrile and tachycardic when examined. Abdomen was distended and tenderness and guarding were present in RHC and epigastric region with sluggish bowel sound on auscultation. All blood investigations as mention(WBC was 16400/mcL and sodium: 131 mEq/L, potassium: 4.5 mEq/L,, creatinine: 0.5 mg/dL, alkaline phosphatase: 87 U/L, aspirate aminotransferase: 32 U/L, alanine aminotransferase: 19 U/L, total bilirubin:0.4 mg/dL, glucose: 187 mg/dL.). Plain abdominal radiography showed the presence of multiple air-fluid levels and the possibility of intestinal obstruction. Ultrasound findings will show thickening of the gall bladder wall >3.5 mm, Murphy's sign a round shape, pericolic collection and no stone shown within the gallbladder. CECT reveals a severely engorged gallbladder, collecting in a fundal area, dehiscence of the nearby gallbladder wall, and stranding of mesenteric fat nearby. hidden perforation. Hence, an emergency laparotomy was performed with the diagnosis of a concealed GI tract perforation. In the abdominal cavity, there were massive yellowish-brown purulent ascites. Contrary to our expectations, no perforation was present in the alimentary tract, but rather we found the patient to have perforation at the posterior Gallbladder wall with cholecystitis and performed cholecystectomy. No gallstones were detected in the Gallbladder. Tazobactam/piperacillin was given pre- and post-operation. The patient had a smooth postoperative recovery and was released 15 days after his uncomplicated operation. Purulent ascites' cultural sensitivity indicated no growth.The Widal test was negative and the blood culture had revealed no growth during postoperative workup.

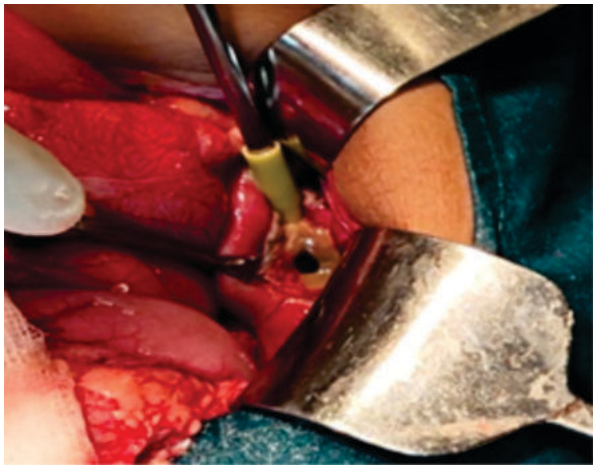

Image: 1. Intra-op Post Gallbladder Wall Perforation

Image: 2. Specimen Of Perforated Gallbladder

DISCUSSION

Adults who have gallbladder perforation, which typically occurs near the fundus with the least vascularization. Although it has frequently been described as idiopathic or spontaneous, the majority of cases were caused by coexisting conditions including inflammation, trauma, or blockage. Biliary tract perforations in children are often the least frequent occurrence.Gallbladder perforation could be traumatic, iatrogenic or idiopathic (Spontaneous gallbladder perforation). The majority of spontaneous gallbladder perforations in cases of acalculous cholecystitis have been associated with predisposing conditions, such as critical illness, severe burns, enteric fever, cancer, infections, and systemic disorders such diabetes mellitus and

atherosclerotic heart disease.

The diagnosis of spontaneous Gall bladder perforation is often delayed or missed altogether, the majority being made only at the surgery. Pneumoperitoneum may not always be seen on abdominal X-rays, as was the case with our patients, thus they are not always helpful.. Ultrasonography and computerized tomography may demonstrate abdominal fluid but lack specificity to diagnose gall bladder perforation, which can be easily detected on hepatobiliary scanning The "HOLE" Sign, in which the defect in the gallbladder is visualized, is the only reliable Sign of Gallbladder perforation.

Early diagnosis and prompt surgical intervention are pivotal in the management of GBP to decrease the morbidity and mortality associated with this condition. Although though it might be challenging to diagnose GBP clinically, it is frequently mistaken as a bowel perforation when a patient exhibits symptoms that point to perforative peritonitis. An essential step in the treatment of gallbladder perforation is early surgical treatment. Early diagnosis of Gallbladder perforation and immediate surgical intervention is of prime importance in decreasing the morbidity and mortality associated with this condition.

Therefore the inclusion of a perforated gall bladder should be considered in the differential diagnosis of pediatric patients preset with acute abdomen, fever, high total leukocyte count and all features of peritonitis and bowel perforation.

CONCLUSION

The presence of peritonitis in a child with a perforated gallbladder should be taken into account because, despite its rarity, acalculous cholecystitis is a prevalent abdominal complication in a paediatric population So surgical approach is consider and abdominal incision made in view of that surgeons may explore the liver region. A satisfying outcome is obtained after a cholecystectomy, peritoneal lavage, the placement of a peritoneal drain, and continuous antibiotic treatment for a potential typhoid infection.

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