ISSN- O: 2458 - 868X, ISSN–P: 2458 – 8687
National Library of Medicine - ID: 101731606

International Journal of Medical Science and Innovative Research (IJMSIR)
IJMSIR : A Medical Publication Hub
Available Online at: www.ijmsir.com
Volume – 7, Issue – 6, December – 2022 , Page No. : 145 – 153

Rare case series mimik like perforation peritonitis and rarest intraoperative finding in tribal area population

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Citation this Article: Dr. Atul Kumar khare, Dr. Maithily Gautam, Dr. Kuldeep Patel, "Rare case series mimik like perforation peritonitis and rarest intraoperative finding in tribal area population", IJMSIR- December - 2022, Vol – 7, Issue - 6, P. No. 145 – 153.

Type of Publication: Case Report

Conflicts of Interest: Nil

Abstract

Introduction: Perforation peritonitis is the most common surgery performed in an emergency. Upper gastrointestinal tract perforation is more common than lower gastrointestinal perforation. Here we report as rare cases which have different presentation with or without bowel perforation.

Results

1] multiple peptic perforation in a 35-year-old middle-aged man with history of analgesic use for 2 years.

2] prepyloric perforation and multiple ileal perforations in a 33-year-old young man who had taking pain killer and past history of typhoid.

3] appendicular perforation in 25-year-old chronic alcoholic male patient, without no any evidence of perforation clinically or radiologically.

4] ruptured pseudocyst of pancreatic in 24-year-old male patient with chronic alcoholic, mimic clinically and radiographically like bowel perforation.

5] case of tubercular plaster/cocoon abdomen, in 24 old female which clinically or radiologically mimic as perforation peritonitis

Conclusion: Our case series study concluded that bowel perforation has multiple finding intraoperatively or no any finding if clinically or radiologically mimic bowel perforation.

Case report 1

Multiple peptic perforations in an individual are a relatively rare entity, with fewer than 10 cases reported in the literature.

The factor that contributes the most for the occurrence of multiple peptic perforations is analgesic and steroid abuse.

A 35-year-old man presented with a history of abdominal pain, vomiting for 5 days, and constipation and fever for 2 days.

There was history of sudden pain in upper abdomen followed by vomiting. Pain was of severe grade and not relieved by medication. He had not passed flatus or feces for 3 days, also fever with chills for 2 days. The patient had history of taking NSAIDs for abdominal pain for the last 2 years. He was a smoker, drinker, and non-vegetarian.

On admission, he had pallor, tachypnoea, tachycardia (110 beats/ min), and a fever of 38.5 °C. Guarding and rigidity were present and bowel sounds were absent. A flat plate skiagram of the abdomen demonstrated free gas under right diaphragm.

investigations = hemoglobin, 8.7 g/ dl; leukocytes, 16000/ dl; platelets, 1.1 lacs

S. urea, 114 mg/L; S. creatinine, 2.8 mg/dl

S. sodium 128 mEq/L,

S. potassium, 2.8 mEq/L.

The patient was stabilized hemodynamically and broad-spectrum antibiotics, were administered. After initial resuscitation (placement of intravenous lines and nasogastric tube, foleys insertion followed by adequate administration of fluids), the patient underwent an emergency exploratory laparotomy.

On exploration, 1L of biliopurulent fluid were removed. After thorough peritoneal lavage, multiple gastric perforations were identified, one in the anterior wall of the stomach near greater curvature of size ranging from ~0.75 cm × 0.5 cm and another ~0.5 cm × 0.5 cm was present over the body of the stomach along the greater curvature (Fig. 1).

all perforations were repaired with a 2-0 silk interrupted suture with omental patch in between. A 30F abdominal drain was placed in the pelvis and anatomical closure was done in layers. Postoperatively active ryles tube aspiration. The patient recovered completely and was discharged successfully on the 12th pod.

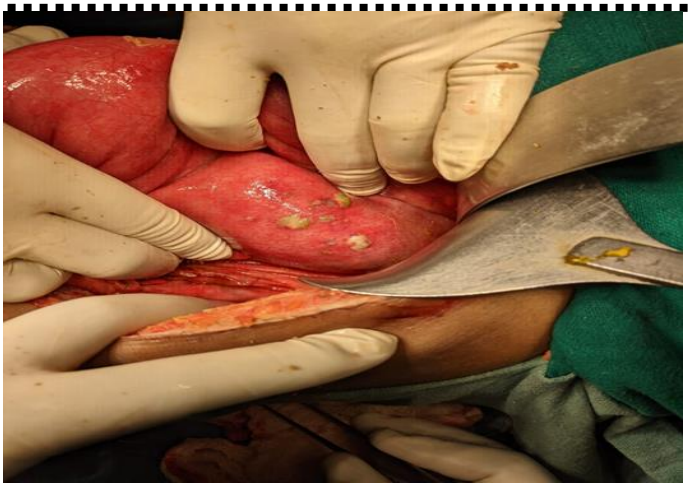

Figure 1: Multiple gastric perforations.

Discussion

Peptic perforation is the most prevalent surgical emergency with high mortality and morbidity, most commonly present in the first part of the duodenum (35–65%), with 25–45% located in the pylorus, and 5–25% in the stomach. [1] The etiological factors responsible for peptic perforation and annual incidence vary depending upon sociodemographic factors, [2, 3]. The factors that contribute the most for occurrence of peptic perforation are Helicobacter pylori infection and chronic use of NSAIDs. [4]

We successfully managed a rare and interesting case of multiple perforation of the stomach. While studying our case retrospectively we found that our patient had been taking analgesics abdominal pain for the preceding 24 months . Studies have demonstrated the obvious relationship of analgesic abuse and peptic perforation. [6] The occurrence of it is a rare entity in which multiple gastric perforations are further not very common.

Table 1. Cases of multiple peptic perforation reported in the literature.

Ref no.	Author	Year	Sex	Medical history	Coexisting disease	Condition
[7]	Kanai M et al	1988	Male	Leg pain	Degos' disease	Multiple gastric and ileal perforations

Ref no.	Author	Year	Sex	Medical history	Coexisting disease	Condition
???	Maly L	1996	Male	Recurrent pain abdomen	Gall bladder perforation	Double gastric perforation with gall bladder Perforation
???	Dahm	1962	Male (4 y)	n/a	n/a	Multiple duodenal perforation
[10]	Mynhardat	1951	Male	n/a	Peptic ulcer disease with burn	Double duodenal perforation
???	Chaudhary et al	1965	Male	n/a	n/a	Simultaneous multiple peptic peroration

Conclusion

Multiple peptic perforations are rare but could potentially be lethal if missed. Analgesic abuse appears to be the underlying cause for multiple perforations. Repair of the perforation with Graham patch is the treatment of choice.

Case report 2

Spontaneous multiple small bowel perforations are rare. While the diagnosis of hollow viscus perforation is relatively straight forward, the site of perforation is often made only after laparotomy. The cause of small bowel perforation, in India, is often due to infections – typhoid fever and tuberculosis. In the Western countries, trauma followed by closed loop obstructions, malignancy, jejunal diverticula and tumors [13]. Pneumoperitoneum is present in only 50 % of the cases and if the clinical signs are subtle, there may be delay in diagnosis which can be life threatening [14].

We report a case of prepyloric perforation and ileal perforations in a 33-year-old young man who had taking pain killer. He presented with generalised peritonitis and underwent emergency EL with grahm patch repair with exteriorization of ileal perforation. Postoperatively patient shifted to surgery ICU. Patient improve day by day and successfully discharged on 14th pod

Case report

A 33-year-man presented to the emergency department with generalized abdominal pain of 5 days duration which was of sudden onset. There was history of vomiting, diarrhoea, but no history of constipation, or trauma. He has prior history of typhoid fever 15 days back and have chronic pain killer user.

On admission, he was found to be malnourished with pulse rate of 110/min, blood pressure (BP) of 90/70 mm Hg and saturations of 98% on room air.

Abdominal examination revealed generalised tenderness with guarding. Bowel sound were absent. A plain radiograph revealed free air under diaphragm.

NG tube was placed, and she was commenced on broad spectrum antibiotics.

On investigation-hemoglobin, 9.7 g/dl; leukocytes, 24000000/dl; platelets, 5.1 lacs

S. urea, 118 mg/L; S. creatinine, 2.2 mg/dl

S. sodium 128 meq/L,

S. potassium, 2.5 meq/L.

He was taken up for emergency EL after informed consent. A midline laparotomy revealed grossly soiled peritoneal cavity with intestinal contents and chemical peritonitis. More than 1 litres of peritoneal fluid were sucked out. Faecal contamination from the distal ileal perforations were present. There were no peritoneal

deposits suggestive of tubercles, no area of narrowing or strictures in the bowels.

One prepyloric perforation found around 1*1cm and Multiple perforations were seen in the ileum, extending from 230 cm beyond the duo deno-jejunal (DJ) flexure until 30 cm proximal to the ileo-caecal valve. Grahm patch omentopexy of prepyloric perforation with exteriorization of ileal perforation done. Sub hepatic, pelvic and flank drains were sited, rectus closed and abdominal closed in a single layer. During surgery, he had blood transfusion.

She was kept ventilated in the ICU post-operatively. Adequate fluid balance was achieved by meticulous attention to output from stoma, NG tube and urinary volumes. Peritoneal fluid grew Escherichia coli. There were no acid-fast bacilli in the peritoneal fluid.

Discussion

Intestinal perforations constitute a surgical emergency and often needs emergency surgery promptly. Delay in surgery increases mortality. In the absence of trauma, perforations of small bowel are often spontaneous [17, 18]. The cause of these spontaneous perforation usually becomes evident at operation.

Conclusion

While diagnosis of a hollow viscous perforation can be made pre-operatively, the exact site of perforation, are most often diagnosed intra-operatively. The exact diagnosis – cause for the multiple small bowel perforations - in this case remains unclear, the possible causes of small bowel perforations in typhoid infection.

Case report 3

Acute appendicitis (AA) is one of the most common causes of acute abdominal pain and it generally affects young males in the second or third decade of their life. Due to its often-insidious presentations, the diagnosis is challenging and, if delayed, can lead to life-threatening complications. This report describes a rare case of an almost asymptomatic appendices perforation with abscess formation. Thus far this is the first case of appendix perforation without clinically or radio graphically finding.

Clinical presentation

A 39-year-old male present to the emergency department with mild lower right-side abdominal pain, for the previous 10 days, with associated vomiting. primarily he was suspected that this is a case of acute pancreatitis due to history of chronic alcoholic. His past medical history was unremarkable.

On physical examination, the abdomen was generalized mild abdominal tenderness, with no signs of acute abdomen or peritoneal involvement. The patient appeared ill with a heart rate of 90/min, blood pressure of 110/67 mm Hg and body temperature of 36.7°C.

Laboratory tests showed Leucocytosis with a WBC count of 16.00/µL, of which 85% were neutrophils, hemoglobin at 12.2 g /dl, on plain chest skiagram no any abnormality seen but on ultrasound (US) examination of the abdomen, acute appendicitis with inflammatory fluid collection in right iliac fossa seen.

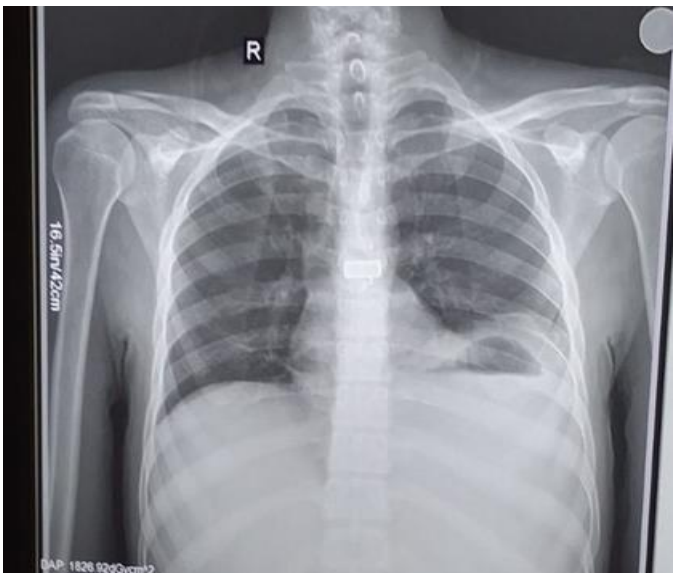

Figure 2:

Due to the ambiguous finding, the patient underwent an urgent surgical intervention on the same day. EL was done and appendicular perforation with abscess formation found and around 300 ml purulent fluid was drained. Appendicectomy done and left pelvic drain was placed.

There were no postoperative complications and three weeks after discharge the patient was asymptomatic with normal white blood cell count.

Discussion

Acute appendicitis (AA) is one of the most common causes of acute abdominal pain and occurs generally in males between the age of 10 and 30; appendectomy is one of the most commonly performed surgical procedures worldwide. [19, 20] Despite its frequency, the diagnosis of AA continues being challenging because of the absence of clinical signs or positive blood results in 55% of the cases and the number of missed diagnoses ranges between 20 and 40%. [22]

Nonetheless, despite the continuous advancement of diagnostic tools, the AA remains an insidious pathology and a challenging diagnosis, especially in atypical cases.

In conclusion, when approaching a patient who presents laboratory results suggestive of appendicitis or pancreatitis and, in order to achieve a more accurate diagnosis, CT imaging should be performed prior to the intervention because appendicular perforation sometime misdiagnosed.

Case report 4

Introduction

Inflammatory pancreatic fluid collections are well-described complications of both acute and chronic pancreatitis. When pseudocysts develop from acute peripancreatic fluid, drainage is indicated for infected, enlarging, or symptomatic pseudocysts [23]. In some of cases, pseudocysts rupture spontaneously and can lead to peritonitis [24]. Proposed mechanisms of rupture include abdominal trauma, increased intra-abdominal pressure, or even autodigestion of pseudocyst walls by proteolytic enzymes [25]. We present a case of pseudocyst rupture requiring emergent surgery for secondary peritonitis.

We present the first documented case of pancreatic pseudocyst rupture and mimic like perforation peritonitis on clinically and radiographically also. EL confirmed the absence of viscus perforation, in some of these of these cases, pseudocysts will rupture spontaneously and put patients at risk of peritonitis.

A 24-year-old man presented to the casualty of our hospital with a history of sudden acute abdominal pain with vomiting for 12 hours, fever for 2 days. Pain was of severe grade and not relieved by medication. He had also had fever with chills for 2 days. The patient had history of taking alcohol; for the last 2 years. He was a smoker, and non-vegetarian.

On admission, he had pallor, tachypnea, tachycardia (100 beats/min), and a fever of 38.5 °C, as well as a rigid abdomen. Guarding and rigidity were present and occasional bowel sounds were also noted. A flat plate skiagram of the abdomen demonstrated free gas under both hemidiaphragms.

Preoperative investigations = hemoglobin, 9 g/dl; leukocytes, 6000/dl; platelets, 1.1 lacs

S. urea, 114 mg/L; S. creatinine, 2.0 mg/dl

S. sodium 128 meq/L,

S. potassium, 3 meq/L.

The patient was stabilized hemodynamically and broad-spectrum antibiotics [ceftriaxone and metronidazole], were administered. After initial resuscitation (placement of intravenous lines and nasogastric tube, foleys insertion followed by adequate administration of fluids), the patient underwent an emergency EL.

On exploration, 1L of thick brown colored fluid were removed. After thorough peritoneal lavage, bowel was examined but bowel found healthy and no any perforation was found, ruptured pseudocyst of pancreatic wall was found.

A 30F abdominal drain was placed in the pelvis and anatomical closure was done in layers.

Postoperatively patient shifted to ICU and vitally stabilized. The patient recovered completely and was discharged successfully on the 12th postoperative day.

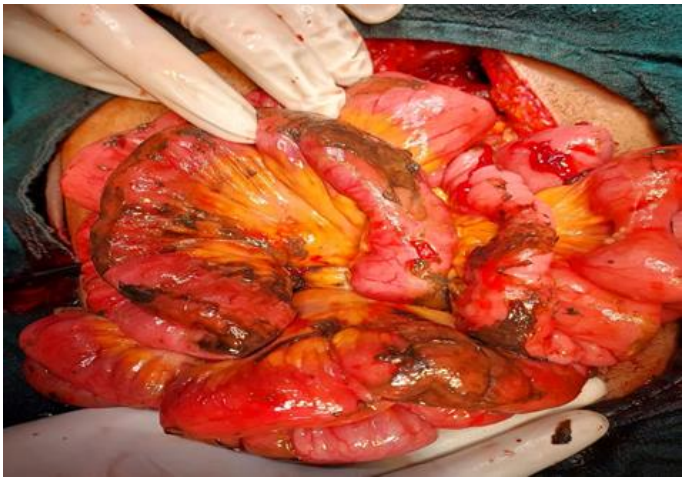

Figure 3:

Discussion

Increased intra-abdominal pressure has been suggested as a risk of pseudocyst rupture, but to the best of our knowledge, no case report has demonstrated pseudocyst rupture and mimic like bowel perforation. In fact, this case is the first report of pseudocyst rupture caused by increase pressure. patients with pancreatic pseudocysts who are being observed should be counselled on the potentially lethal condition associated with all procedures that increase gastric or abdominal pressure.

Case report 5

Abdominal cocoon is described as rare condition causing intestinal obstruction where a part or whole small bowel is encased in a fibrous membrane, that is usually diagnosed at the time of laparotomy. It is usually of unknown origin, although at times, it may be seen secondary to a variety of conditions. Tuberculosis is an infrequently implicated cause of abdominal cocoon, and has only occasionally been reported previously in the Literature. This paper presents our experience with tubercular cocoon as a cause of intestinal obstruction, and discusses the surgical implications.

24-year-old women presented to the casualty of our hospital with a history of abdominal pain with vomiting for 10 days, fever for 15 days. Pain was of severe grade and not relieved by medication. Also not passing flatus and motion for 8 days.

On admission, he had pallor, tachypnoea, tachycardia (106 beats/min), and a fever of 38.5 °C, as well as a rigid abdomen. Guarding and rigidity were present and occasional bowel sounds were also noted. A flat plate skiagram of the abdomen demonstrated free gas under both hemidiaphragms.

Preoperative investigations = hemoglobin, 7 g/dl; leukocytes, 4000/dl; platelets, 2.1 lacs

S. urea, 114 mg/L; S. creatinine, 1.8 mg/dl

S. sodium 138 meq/L,

S. potassium, 3 meq/L.

The patient was stabilized hemodynamically and broad-spectrum antibiotics were administered. After initial resuscitation (placement of intravenous lines and nasogastric tube, foleys insertion followed by adequate administration of fluids), the patient underwent an emergency EL.

On exploration, 500ml of ascitic fluid were removed. After thorough peritoneal lavage, bowel was examined but not able to dissect bowel segments, and no any perforation was found, whole bowel encased in thick fibrous capsule. After bowel wash, abdomen was closed and left side drain was placed.

Postoperatively patient shifted to ICU and vitally stabilized. On 4th pod patient passing flatus and motion and antitubercular treatment started. The patient recovered completely and was discharged successfully on the 10th postoperative day.

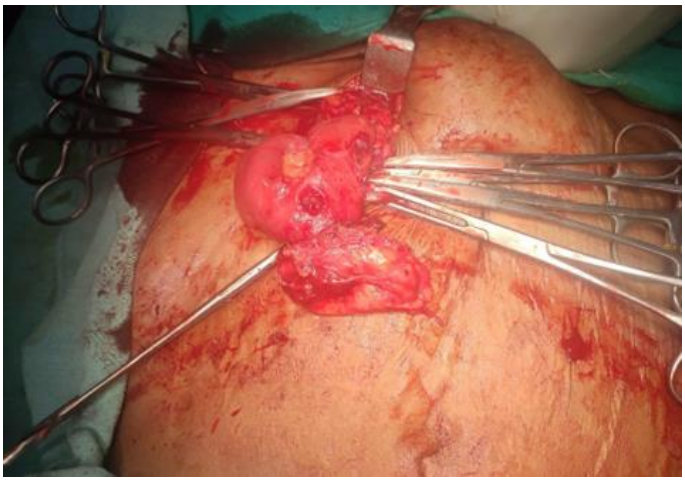

Figure 4:

Discussion

The abdominal cocoon remains an uncommon cause of intestinal obstruction, of these, the majority of cases reported were of the primary type, but the secondary form was also frequently reported.

Clinically, these patients with abdominal cocoon present with attacks of colicky pain abdomen, nausea, vomiting with intestinal obstruction and perforation, that is seldom complete [29]. An abdominal mass may or may not be present [27]. Although some authors have described a few radiological signs on plain x-ray, barium series and computerized tomogram scan, it is, as a rule, difficult to be able to make a definite pre – operative diagnosis of this entity [26].

The diagnosis is usually made at laparotomy, when the encasement of the small bowel within the sac-like cocoon is visualized. Although the disease primarily involves small bowel, it can extend to involve other organs like the large intestine, liver and stomach. The treatment is by lysis of this covering membrane, and rarely, further procedures such as resection, are required [28].

At surgery, in addition to the covering membrane, there also are dense inter-bowel adhesions that also need to be freed in order to relieve the obstruction, and hence, the potential for iatrogenic complications is high. Other manifestations of abdominal tuberculosis such as mesenteric abscesses, enlarged and caseating mesenteric lymph nodes, and tubercles over the bowel serosa are also commonly encountered, that may suggest a tubercular etiology.

The histological examination of the membranous tissue in a primary cocoon shows non-specific chronic inflammatory reaction. In our case, the excised membrane showed caseating epithelioid cell granulomas. Once the diagnosis of tuberculosis is established these patients need to be put on standard anti-tubercular treatment.

Conclusion

Awareness of this rare condition along with early diagnosis with radiological guidance and surgical intervention reduces morbidity of the patient.

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