CASE REPORT

AN INTERESTING CASE OF INTESTINAL OBSTRUCTION IN ACUTE ABDOMINAL COCOONING AND LITERATURE REVIEW

ABSTRACT

This case reports acute intestinal obstruction due to abdominal cocooning syndrome without any underlying co morbidities. A 40 year , male presented to the emergency department with chief compliantof pain in abdomen since one month. He also complaints of vomiting episodes since 2 days. CT abdomen and pelvis was done and planned for definitive surgery. Exploratory laparotomy was planned .Sac with fibrous band of mostly distal ileum and few parts of colon noted adhesions were released and patency of bowel checked and excised sac sent to histopathology showed fibrocollagen exudates with lymphocytic infiltration and plasma cells infiltration noted.post operative no complications developed

Key words Abdominal cocooning syndrome ,acute obstruction, emergency laparotomy, acute abdomen

Abbreavtion with full form:ACS – abdominal cocooning syndrome ,USG – ultra sonogram, CT – computerized tomography, NG Tube – nasogastric tube, WBC- white blood cells

Introduction

Abdominal Cocoon is referred as a complete or partial small bowel encapsulation caused by dense fibrocollagen membranes leading to acute or chronic small bowel obstruction. It was first termed as peritonitis chronic fibrosaincapsulata by Owtschinnikow in 1907 and finally abdominal cocoon by Foo in 1978.[1] It is most commonly seen in adolescent girls of tropical and subtropical region though few cases of male have also been reported in literature.[1,2]

Case report

A 40 year,old male presented to the Emergency department with Chief complaints of pain abdomen a nice one month acute presentation ,gradual progression aggregated

since 3 days and on propped up position relieved on supine Associated with history of 3 episodes of vomiting containing food particle stained 2 days prior to presenting to emergency department and no history of constipation or loose stools and no history of fever

History of previous episode 15 days back for which he was admitted at local hospital and managed conservatively with IV fluids and analgesics

No history of surgery in the past or no history of medical co morbidities

No history of any addictions

On examination Patient was hypotensive with tachycardia with features of dehydration

Per abdomen examination revealed tenderness in right iliac fossa with no guarding and rigidity

On per rectal examination ballooning was noted with no growth or rectal bleed

Initial fluid resuscitation was done with nasogastric tube insertion and nil per oral and antibiotics patient underwent CT abdomen and pelvis as shown in figure 1and 2

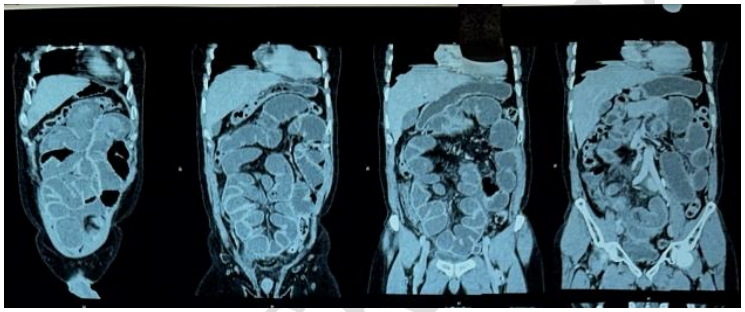
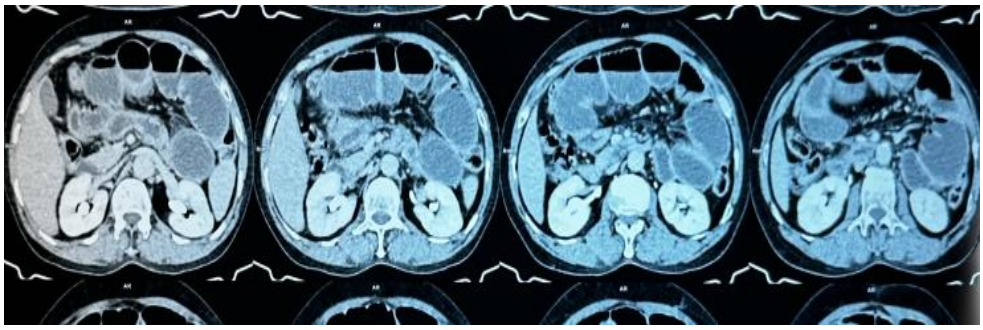


Figure 1. showing coronal section of CT abdomen and pelvis showing clumping of bowel loops in the Centre of the abdomen with matting of bowel loops. Loops are embedded in a thin walled sac with localized fluid collection mostly duodenojejunal flexure and proximal part of jejunum were embedded in the sac



Fi**gure 2.**Showing the similar findings in axial section of CT abdomen and pelvis

Intraoperative findings

Patient was conservatively managed for a day due to non reliving of symptoms,Patient was planned for exploratory laparotomy after resuscitation was done and stabilized. Intraoperative findings as shown in figure 3 and4

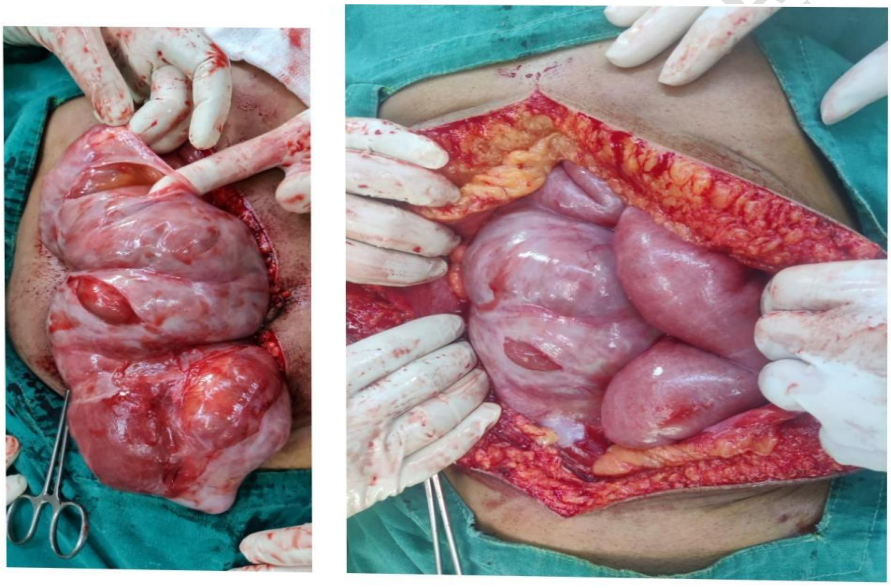


Figure 3. showing intraoperative findings

Cocconing noticed encasing the bowel loops with intrabowel loops adhesions and fluid collection sac mostly containing proximal jejunum and distal duodenal segments .Cocooning was excised and adhesions were released and bowel run overwas done from deuodenojejunal flexure to ileocecal junction post sac excision images are shown as follows in figure 4

Excised sac was sent to histopathology studies showed Thickened fibrocollagenous deposits with lymphocytic infiltration and plasma cell infiltrate no significant findings of malignancy

Fig 4. Deuodenojejunal flexure to ileocecal junction post sac excision image

Post operative care:

Post operative recovery was remarkable nasogastric tube was removed on pod 2 and feeds were started with oral sips on pod 4 after bowel movements and on pod 7 patient was discharged with complete suture removal. Post operative patient had no complaints.

Discussion:

Abdominal cocooning syndrome previously referred as encapsulating peritonitis is a rare clinical presentation of acute intestinal obstruction. It usually occurs in young female(4) with underlying chronic etiology. Encapsulating peritonitis (SEP) is an acquired condition. Prior abdominal surgery or peritonitis, chronic ambulatory peritoneal dialysis and prolonged use of practolol are the main causative factors.[3] Other conditions such as history of ventriculoperitoneal and peritoneovenous shunts, sarcoidosis, cirrhosis, systemic lupus erythematosus, propranolol therapy for constrictive pericarditis, fibroid uterus, endometrium or tumor of ovary, and recurrent peritonitis have also been implicated(5). It may be mistaken with abdominal tuberculosis(3) clinical manifestations are non-specific and vary from individuals, and hence the diagnosis is rarely made preoperatively, it is often diagnosed at the time of laparotomy or autopsy accidently. The condition is usually asymptomatic, a small percent of patients' symptoms are non-specific, such as

abdominal pain, nausea, abdominal fullness, vomiting, an abdominal mass and bowel obstruction, but also shows primary infertility in female, which is usually misdiagnosed as chronic appendicitis, incomplete intestinal obstruction, ovarian cyst torsion and so on. (6). During surgery, excision of the thick membrane and lysis of adhesions were carefully performed to release the small intestine. Postsurgical recovery in most cases was smooth, and there was no recurrence during a follow-up period of 3 months to 9 years(7)The male to female ratio was approximately 1.2:1. The mean age at diagnosis was 33 years. The main clinical manifestations included recurrent acute or chronic intestinal obstruction in 147 cases (72.4%), abdominal mass in 53 cases (26.1%). Of the 203 cases, abdominal plain X-ray were performed in 163, B-ultrasound in 85, CT in 68 and barium meal in 32 cases, however, only 6 cases (3.0%) were diagnosed as abdominal cocoon preoperatively. All the cases received operations included partial or total excision of the membrane and enterolysis in 172 cases (84.7%), together with bowel resection in 34 cases (16.7%) and appendectomy in 51 cases (25.1%). Postoperative complications included recurrent obstruction in 55, and death in 11 cases (5.4%).(11,12)

Anecdotal reports of a preoperative diagnosis of peritoneal encapsulation being established, in the majority of cases this is fortuitous particularly in the absence of discerning clinical signs. However, a better awareness of this condition with appropriate use of imaging techniques may facilitate preoperative diagnosis(8)(9)

Conclusion:

So cocooning syndrome is a rare entity and usually diagnosis done on surgical procedure, early intervention is indicated in order to avoid strangulation and care to be taken while dissecting the sac in order to avoid bowel injury usually recurrence is uncommon. Here this a case of old male with no underlying pathology were etiology is unknown likewise mostly it occurs in young female with underlying pathology or cause

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