

Case Report

Sclerosing Encapsulating Peritonitis

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Abstract:

Sclerosing Encapsulating Peritonitis (SEP) or Abdominal Cocoon is a rare condition characterized by total or partial encasement of the small bowel by a fibrocollagenous cocoon like sac. It was first described and named by Foo et al¹ in 1978. Here we present a case of SEP or cocoon in a young girl with typical radiological and per operative finding.

Key Words: *Sclerosing Encapsulating Peritonitis, Peritoneal Cocoon, Peritonitis.*

Introduction: SEP has been classified as primary and secondary, based on whether it is idiopathic or has a definite cause. According to some Only the Idiopathic form is called Abdominal cocoon². The condition may present as acute intestinal obstruction or a sub acute intestinal obstruction³. In our case she had features of sub acute intestinal obstruction, like- episodes of colicky abdominal pain over a period of 2 years associated with visible peristalsis, which became evident during the episodes of pain.

Our Case: Miss Parul a 16 year girl presented with complains of Occasional right lower abdominal pain for last 2 years, and appearance of a vague lump in right lower abdomen for same duration. Her pain was colicky in nature, appearing at right iliac fossa, then spread to the whole abdomen. Pain was precipitated by heavy meal. During the episodes of pain she noticed a swelling in the lower abdomen, which did not increase in size in last 2 years.

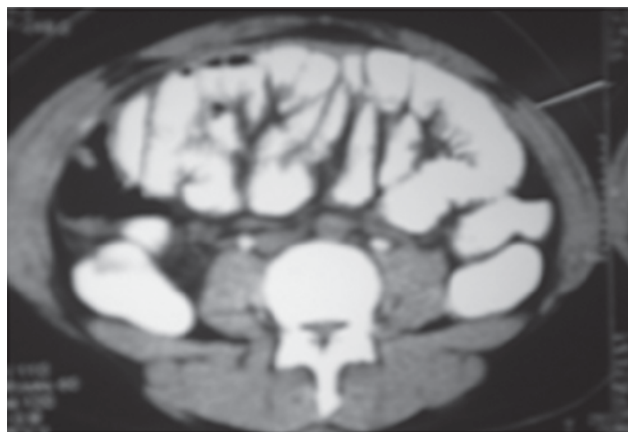


Figure 1: CT scan of Abdomen showing small gut loops closely packed in a capsule.

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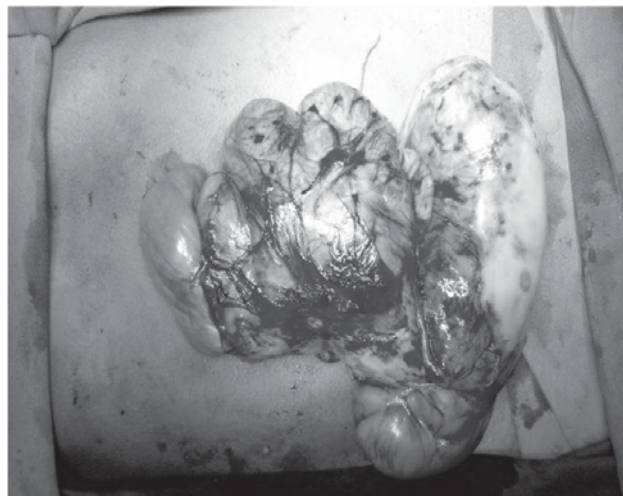


Figure 2: Encapsulated small gut loops at Laparotomy.

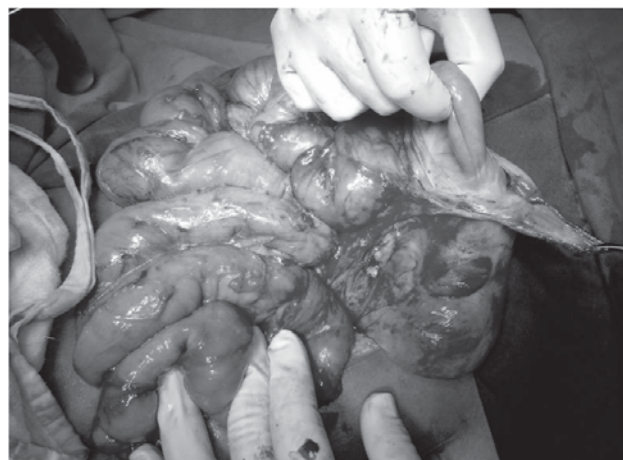


Figure 3: Adhesiolysis in progress.

She also complained of diahorrea during her pain. Pain was relieved by taking intravenous antispasmodic. There is no history of vomiting, fever, burning micturition, cough, altered bowel habit, malena, or significant weight loss. Her menarche occurred 3 years back, and her menstruation was regular. With these complains she took consultation from multiple physicians and was diagnosed as a case of acute appendicitis. She underwent Laparotomy but operating surgeons saw a large whitish mass in the abdomen, so they postponed the surgery and referred her to Dhaka. In our hospital on general

examination her vitals were stable and other findings were normal. On abdominal examination she had no palpable lump, no organomegally, no tenderness except at the site of scar of previous surgery one month back.

Investigations: CBC showed TC-9000/cumm, and no evidence of neutrophilia, Serum Creatinine, liver enzymes, electrolytes, pancreatic enzymes were normal. ECG and CXR were normal. Several ultrasonogram was done showing bulky Uterus but otherwise normal finding. There were no adenexal mass, or any other abdominal lump. Contrast CT of whole abdomen was done showing closely packed small gut loops within a thick fibrous capsule, and increased transit time of the dye.

Treatment: Initially we did diagnostic laparoscopy. A large whitish encapsulated mass was seen, so we opened the abdomen with midline incision. The major portion of jejunum(except 20 cm from DJ) and whole of the ileum was found encased within a fibrous sheath, which was calcified at places. Careful stripping of the gut from the fibrous capsule was done. Appendisectomy was done. Part of capsule, mesenteric lymphnode and appendix sent for Histopathology.

Histopathology: No granuloma or malignancy was seen in the lymph node and fibrous capsule, there was only hyalinized fibrocollagenous tissue. Appendix showed lymphoid hyperplasia, that is normal considering her age.

Her post operative period was uneventful. She was discharged on 10th post operative day, with an advice to follow up. She is doing fine now after 11 months.

Discussion: Although several hypotheses have been proposed, the etiology of the primary form remains uncertain. The abdominal cocoon has been classically described in young adolescent females from the tropical and subtropical countries¹. To explain the etiology, a number of hypotheses have been proposed. These include retrograde menstruation with a superimposed viral infection, retrograde peritonitis and cell-mediated immunological tissue damage incited by gynecological infection⁴. However, since this condition has also been seen to affect males⁵, premenopausal females and children, there seems to be little support for these theories.

Secondary causes have included placement of Le vein shunts, continuous ambulatory peritoneal dialysis, systemic lupus erythematosus, tuberculosis, use of povidone iodine washout and beta adrenergic blockers¹.

Clinical fetures: Patients usually present with acute intestinal obstruction in surgical emergency. Abdominal pain, distention, vomiting are common features. Perforation of gut may also occur and patient may have features of peritonitis. In our case patient did not develop acute intestinal obstruction, instead she was quite symptomless in between episodes of lower abdominal colicky pain when she noticed a vague swelling arising in her lower abdomen.

Diagnosis: Diagnosis of abdominal cocoon is most commonly done at laparotomy⁶, as patient presents as a surgical emergency. But typical radiological features can help preoperative diagnosis if they are looked for properly, along with a high index of clinical suspicion. Barium follow through

X ray may show small gut loops packed closely in a concertina like fashion, and a increased passage time of contrast⁷. CT scan of abdomen also shows tightly packed small gut loops, and a whitish fibrous sheath may also be seen in many cases as in ours, around the closely arranged small gut loops. Diagnosis is often done at laparotomy and per operative findings is pretty obvious. A fibrous sheath is seen packing the whole or part of small gut loops. Less commonly stomach , large gut may also be involved⁸.

Treatment: There are two main surgical options, one is adhesiolysis by stripping the fibrous capsule off the gut, and another is resection of affected portion of gut followed by anastomosis⁶. The success of surgery in this disease is determined by the technique used. The correct technique consists of freeing the adhesions and extirpating of the capsule as far as possible. Perforation, as well as resection and intestinal anastomosis, significantly increase mortality.

Prognosis: In case of secondary SEP with adequate surgery and alleviation of underlying cause, prognosis is good¹. In case of primary SEP recurrence may occur, so follow up is necessary.

Conclusion: Though abdominal cocoon is a rare cause of intestinal obstruction, but more and more cases are being reported . This will help to improve knowledge about the condition and its clinical and radiological features, and thus more cases will be diagnosed preoperatively. As the idiopathic variety more commonly affects young adolescent girls⁴, and chance of recurrence is more in Idiopathic form so there should be a protocol as to for how long this cases should be followed up.

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