CASE SNIPPETS

Abdominal Cocoon - The Cauliflower Sign on Barium Small Bowel Series

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Abstract
We report a case of abdominal cocoon encasing the small bowel diagnosed pre-operatively on radiology. Barium small bowel series showed the ileal loops clumped together as within a sac, giving a cauliflower-like appearance on sequential films. At surgery, the membrane enclosing the loops was thin and flimsy.


Keywords: Small intestine obstruction

Abdominal cocoon is a rare condition in which the small bowel is encapsulated by a membrane; this may give rise to intestinal obstruction. The diagnosis is usually established at surgery. We describe a radiological sign which may help in preoperative diagnosis.

A 15-year-old girl presented with abdominal colic and vomiting for one day. She had had similar episodes in the past. On examination, a lump was palpable in the right iliac fossa. With a clinical diagnosis of intussusception, a barium small bowel series was performed. It showed entire ileum to be arranged in a serpiginous fashion, clumped together as within a sac in the right iliac fossa. This gave a cauliflower-like appearance with a stem which persisted on sequential films.

At laparotomy, ileal loops, cecum and appendix were seen to be encased in a thin, flimsy membrane in the right iliac fossa. The sac was incised and loops separated. The postoperative course was uneventful.

Peritoneal encapsulation and abdominal cocoon are two entities which appear similar but differ in etiology, symptoms and treatment. In peritoneal encapsulation, an embryologic abnormality the bowel lies behind an accessory membrane but is not encased. The diagnosis is incidental and this membrane is probably best left alone. In abdominal cocoon on the other hand, the small bowel is encased completely in membrane. Patients are generally young women in subtroplcal regions and present with small bowel obstruction. Extensive surgery is unnecessary. Simple incision of the membrane is sufficient. The etiology is unknown, but cases have been reported after prostagland withdrawal therapy, and after continuous ambulatory peritoneal dialysis. Retrograde peritonitis and retrograde menstruation have also been suggested as its causes. All cases reported previously had a thick membrane encasing the bowel; our patient however had only a flimsy membrane.

A preoperative radiological diagnosis was made in only one previous case. In our case, small bowel loops arranged in a serpiginous fashion within the cocoon, which had a stem which probably represented the afferent and efferent loops; these together gave the appearance of a cauliflower, which persisted on sequential films.

Fig: Barium small bowel series shows small bowel clumped together in a serpiginous manner, giving the appearance of a cauliflower. These loops remained fixed on sequential films.

References