CASE REPORT

# PERITONEAL ENCAPSULATION PRESENTING AS SMALL BOWEL OBSTRUCTION IN A 16 YEAR OLD GIRL

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Peritoneal encapsulation is a rare congenital anomaly characterized by a thin membrane of peritoneum encasing the small bowel to form an accessory peritoneal sac. Cases usually present with small bowel obstruction or can be an incidental finding during laparotomy. We report a case of peritoneal encapsulation presenting as a small bowel obstruction in a 16 year old girl. The sac was easily excised and surgery was otherwise uneventful. A discussion of the case and review of literature is presented.

## CASE REPORT

A 16 year old girl presented with 5 days history of pain abdomen, abdominal distension, vomiting and weight loss was admitted through emergency in hospital. She had similar symptoms one year ago; there was no previous history of surgery.

Physical examination showed a malnourished girl with abdominal distension involving mainly right iliac fossa and mid abdomen, it was non-tender with palpable bowel loops; x-ray abdomen showed dilated bowel loops in the abdomen.

Patient was conservatively managed for 48 hours but she remained static, so she was operated upon, it showed whole small bowl from DJ to ileo-ceacal junction encased within thin peritoneal membrane appearing like a big sac enclosing whole small bowl, membrane was divided with sharp dissection, sac opened and removed, there were no adhesions between the membrane and bowel loops and bowl loops could be easily separable till whole gut length was restored. Patient had uneventful recovery and was doing well in follow-up.

## DISCUSSION

Peritoneal encapsulation is characterised by encasement of small bowel in an accessory peritoneal sac. This is attached to the ascending and descending colon laterally, the transverse colon superiorly, and posterior surface of parietal peritoneum inferiorly.

It was first described by Cleland in 1868. Less than 20 cases have been reported and the diagnosis was made incidentally in most of these cases.[1]

It is believed to be caused by mal rotation of the bowel during 12$^{th}$ week of gestation.[2] This causes the formation of an accessory sac from the peritoneum covering the umbilicus. The membrane may cover the entire or part of the small bowel from duodeno-jejunal junction down to the ileo-colic junction.[3]

The two commonest clinical presentations are: acute small bowel obstruction or incidental diagnosis during laparotomy for another condition[4]. However, many cases are incidental findings at autopsy. Some patients may have episodes of intermittent colicky abdominal pain or sub-acute small bowel obstruction as in our case the patient had multiple episodes of sub-acute small bowel obstruction a year before, prior to a definitive diagnosis.

Pre-operative diagnosis of peritoneal encapsulation is impossible because x-ray abdomen only shows dilated small bowel loops and CT scan findings can be very non-specific, its diagnosis is intraoperative and excision of the membrane with release of the small bowel is all that is required.

Awareness of this congenital anomaly is of potential use if encountered as an emergency as its presence is not reported in the standard anatomical descriptions.

## REFERENCES

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