ANSWER TO PHOTO QUIZ (PAGE 219)

A BUTTERFLY IN THE BELLY: AN UNUSUAL CAUSE OF INTESTINAL OBSTRUCTION

DIAGNOSIS

Laparoscopy revealed a circa 75 cm long, white layer starting at the Treitz ligament covering the proximal jejunum and peritoneum. Extensive adhesiolysis was performed. After the surgical procedure, the patient quickly recovered. Biopsies were taken and pathological examination showed fibro-adipose tissue with minimal non-specific signs of chronic inflammation.

Encapsulating peritoneal sclerosis (EPS) is a rare clinical condition in which chronic inflammation leads to formation of a fibrocollagenous, cocoon-like membrane that can partially or totally encase the small bowel. As the formation of this membrane causes adhesions, intestinal obstruction can occur and patients typically present with nausea, vomiting, abdominal pain, abdominal distention or constipation.[1] The duration of symptoms can vary between a few days up to 18 years depending on the severity of the obstruction.[1] As preoperative diagnosis is difficult, EPS is frequently diagnosed during surgical procedures.[2] Treatment of EPS is predominantly surgical although this is not always necessary in asymptomatic EPS.[3]

Primary or idiopathic EPS was first named 'abdominal cocoon syndrome' by Foo in a case series of ten adolescent women.[4] The aetiology of primary EPS remains unclear. In secondary EPS, which is more common than primary EPS, local or systemic factors lead to inflammation in the peritoneum.[3] Although the exact pathophysiology of secondary EPS is not fully understood, it has frequently been reported in peritoneal dialysis patients and in patients with peritoneal tuberculosis.[2,3] As our patient had received successful treatment for pulmonary tuberculosis in the past and laparoscopy revealed no characteristic signs of abdominal tuberculosis (e.g. mesenteric abscesses, enlarged lymph nodes, tubercles over the bowel serosa),[2] it is unlikely that this caused the formation of EPS.

In summary, EPS is an uncommon cause of complete or incomplete bowel obstruction resulting from an idiopathic or inflammatory reaction in the abdomen. Diagnosing EPS is challenging as both clinical and radiological signs are rather non-specific. When symptomatic, surgical adhesiolysis with membrane resection is the treatment of choice.

CONCLUSION

Encapsulating peritoneal sclerosis (EPS) / abdominal cocoon syndrome.

REFERENCES

1. Wei B, Wei HB, Guo WP, et al. Diagnosis and treatment of abdominal cocoon: a report of 24 cases. Am J Surg. 2009;198:348-53.
2. Singh B, Gupta S. Abdominal cocoon: a case series. Int J Surg. 2013;11:325-8.
3. Akbulut S. Accurate definition and management of idiopathic sclerosing encapsulating peritonitis. World J Gastroenterol. 2015;21:675-87.
4. Foo KT, Ng KC, Rauff A, Foong WC, Sinniah R. Unusual small intestinal obstruction in adolescent girls: the abdominal cocoon. Br J Surg. 1978;65:427-30.