Idiopathic sclerosing peritonitis

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Summary: A girl of 12 years old presented with acute small bowel obstruction nine weeks after an uncomplicated appendicectomy. The obstruction was found to be due to the development of sclerosing peritonitis. Previous reports of this rare condition have suggested that it is predominantly found in adolescent girls residing in subtropical climates.

Introduction

Sclerosing peritonitis is now a rare condition which has been most commonly reported to occur following long term oral practolol therapy (Jackson, 1977), chronic ambulatory peritoneal dialysis (Bradley et al., 1983) and with use of the LeVeen peritoneal-venous shunt (Cambria & Shamberger, 1984).

Case report

A 12 year old white girl underwent an uncomplicated appendicectomy. The appendix was not found to be inflamed but its lumen was full of pinworms. This infestation was treated by oral mebendazole for 3 d.

Nine weeks postoperatively the patient was readmitted with a 2 d history of intestinal obstruction, thought to be secondary to adhesions. A laparotomy was undertaken following failure of conservative management. The stomach, duodenum and proximal 100 cm of jejunum were normal, as were the pelvic contents, the colon, apart from the caecum, and the parietal peritoneum. The distal jejunum, the whole of the ileum and the caecum were matted together by a thick 'plastic' membrane which extended onto the mesentery (Figure 1). The total length of involved bowel measured 275 cm. Large fleshy mesenteric lymph nodes were palpable.

By entering a plane between serosa and membrane, the latter was dissected from the involved bowel. The intestine was intubated by means of a 2.5 metre Anderson tube; the proximal end being brought out through a jejunostomy. Extubation occurred 4 weeks postoperatively and 7 months later the patient has had no further complications.

Histological sections of the resected membrane demonstrated fibrous tissue with a few non-specific granulomata. In particular, no birefringent starch granules were seen when the material was examined under polarized light and neither was there any evidence of pinworm. Dermal starch sensitivity was assessed postoperatively, as recommended by Grant et al. (1982). There was no skin reaction and the skin biopsy of the injected site failed to demonstrate either organized granuloma or other signs of inflammation.

Discussion

Sclerosing peritonitis is now a rare condition which has been most commonly reported to occur following...
long term oral practolol therapy (Jackson, 1977). Eight cases of small intestinal obstruction have been reported to occur in adolescent girls in Singapore (Foo et al., 1978); in these cases the obstruction was caused by a thick membrane encasing the small bowel, a state they described as the 'abdominal cocoon'. This condition appears to affect only adolescent girls and reports would suggest that it occurs predominantly in sub-tropical climates (Foo et al., 1978; Sieck et al., 1983). Only 5 cases are thought to have been reported from Europe (Hartmann, 1942; Sayfan et al. 1979).

Intestinal obstruction due to starch granuloma formation usually occurs within 2–3 months of the initial operation. In the present case it appears highly unlikely that the development of the membrane was secondary to intraperitoneal starch contamination since neither the macroscopical nor microscopical features of this condition were observed. This view is reinforced by the negative reaction to the dermal starch provocation test that occurred in this patient.

It has been suggested that retrograde peritonitis via the fallopian tubes might be the initiating factor of this condition, thus explaining its occurrence in young girls (Sieck et al., 1983). If this is so, it is surprising that the pelvic contents have been reported not to have been involved in the pathological process.

The aetiology of this condition remains obscure. The membrane can be removed from the bowel by painstaking dissection. Previous reports have implied that this dissection is easily achieved, but this was not our experience. A plane between 'cocoon' and serosa was difficult to find, the whole operation taking five and a half hours. Plication of the intestine either by intubation or by an external suturing technique may prevent recurrent obstruction from occurring.

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References


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