Haemoperitoneum from benign ileal leiomyoma

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Summary

Intraluminal gastrointestinal haemorrhage is a common feature of benign leiomyoma of the small bowel. A case is reported of an ileal leiomyoma which caused free intraperitoneal haemorrhage. It is believed that such an occurrence has not been reported previously.

KEY WORDS: leiomyoma, bowel, intraperitoneal haemorrhage.

Introduction

Small bowel tumours are rare, comprising 1.5-1.7% of all gastrointestinal tumours (Hancock, 1970; Good, 1963). About one-third are benign (Hancock, 1970; Ostermiller, Joergenson and Weibel, 1966), and leiomyomata account for 26-37% of the benign group (Ostermiller *et al.*, 1966; Olson, Dockerty and Gray, 1951).

Case report

Five hours before emergency admission, a previously healthy 37-year-old woman was awakened by sharp right-sided abdominal pain which gradually became generalised. There were no other symptoms.

On admission, she had a tachycardia but was normotensive. The abdomen was generally tender with guarding, most marked suprapubically and in the right iliac fossa. Rectal and pelvic examinations were normal, as were chest and abdominal radiographs.

At laparotomy, some 200 ml of fresh blood was found in the peritoneal cavity. A polypoid antimesenteric tumour which arose from mid-ileum was seen to be bleeding from a distended surface vein. The tumour was excised and an end-to-end small bowel anastomosis was fashioned. Her postoperative course was uneventful.

Histology

Examination of the tumour showed it to measure 8×7×5 cm and weigh 110 g. The tumour was solid and showed evidence of initial sub-serosal haemorrhage with subsequent breaching of the serosa allowing free haemorrhage. Microscopy showed the tumour to arise from the smooth muscle coat of the small intestine and was composed of spindle shaped cells in whorls and interlacing bands. Mitoses were infrequent. One edge of the tumour showed haemorrhage and inflammation. The appearances were those of a benign leiomyoma of small bowel.

Discussion

Small bowel tumours may remain undiagnosed for long periods. Often, malignant tumours are beyond the stage of surgical cure by the time laparotomy is undertaken (Pagtalunan, Mayo and Dockerty, 1964). Benign tumours may be present without causing symptoms, indeed in some series, 50% of benign tumours were incidental findings during laparotomy for another condition (Hancock, 1970; Rankin and Newell, 1933).

Leiomyomata in particular may reach a large size before causing clinical symptoms. When symptoms occur, they often mimic other gastrointestinal disorders. Common presentations include chronic small bowel obstruction, acute small bowel obstruction (due to intussusception in 13%) or the presence of an abdominal mass (Wilson *et al.*, 1975).

The most common presentation is with intraluminal gastrointestinal bleeding. This may be occult and cause anaemia or, depending on the exact site of the tumour in the small bowel, present as haematemesis or melaena. Despite the relatively short length of the duodenum, some 20% of leiomyomata are found there, and may be seen at gastroduodenoscopy.

More distal tumours may cause melaena or frank rectal bleeding, and attention has recently been drawn to the massive and recurrent haemorrhage that these tumours can cause (Pang and Jessop,

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1983). Diagnosis in these cases can be difficult, and the technique of selective visceral angiography is of particular value in achieving an accurate pre-operative diagnosis (Forbes *et al.*, 1978; Pang and Jessop, 1983).

The structure of these tumours as seen on angiography illustrates why haemorrhage can readily occur. There is often an extensive network of vessels, with increased blood flow, enlarged feeding arteries and a vascular blush during the capillary phase (Ramer, Mitty and Baron, 1971; Burrows, Dodds and Thompson, 1977).

When bleeding does occur, it is normally into the lumen of the bowel. Even those tumours which are largely extraluminal tend to cause intraluminal haemorrhage, and it is believed that the present case is the first reported of benign leiomyoma causing free intraperitoneal haemorrhage.

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