Massive haematemesis and melaena from a Meckel's diverticulum

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Summary

A case of Meckel's diverticulum in a middle-aged man presenting acutely with haematemesis and melaena is reported. Such a presentation has not to our knowledge been previously reported in this age group.

KEY WORDS: massive haematemesis and melaena, Meckel's diverticulum.

Introduction

Rectal bleeding is the commonest presenting symptom following haemorrhage in a Meckel's diverticulum (Weinstein, Cain and Remine, 1962; Soderlund, 1959). We report a case of massive haematemesis and melaena in a middle-aged man with no previous symptoms, a presentation which has not to our knowledge been previously recorded in this age group.

Case report

A 48-year-old man who had previously been well was admitted with melaena. He had woken that night with tenesmus and noticed dark-coloured blood in his stool. He had also vomited twice but no blood was present. His past medical history included aspirin ingestion 3-4 times a week for headache for many years, and he had taken 3 aspirin tablets in the 12 hr before admission.

On examination, he was not shocked, with a pulse of 70/min, blood pressure 130/55 mmHg, non-tender abdomen and a maroon-coloured stool on rectal examination. His haematological indices were normal.

Two hours after admission, he became shocked with a rapid thready pulse of 125/min, BP 65/20 mmHg and the loss of approximately 1 litre of maroon-coloured blood per rectum. The patient was resuscitated with blood, only to have a second large loss of maroon-coloured blood rectally 2 hrs later. His haemoglobin had fallen from 12.8 to 8 g/dl.

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Six hours after admission, he started passing fresh blood per rectum, and had a large haematemesis vomiting approximately 150 ml. An emergency laparotomy was performed which revealed a stomach, duodenum and small bowel full of blood. Gastroduodenotomy failed to elicit a lesion in the stomach or proximal duodenum. The only cause found for the bleeding was an 8 cm × 3 cm Meckel's diverticulum, 55 cm from the ileo-caecal valve. The diverticulum was excised with ileal resection. Histology revealed ectopic gastric and colonic mucosa in the diverticulum with a chronic 7 mm ulcer in the jejunal wall adjacent to the Meckel's diverticulum. The patient subsequently made a satisfactory post-operative recovery.

Discussion

Meckel's diverticulum has been found in retrospective studies to occur in 0.8-4% of the population (Williams, 1981). Soltero and Bill (1976), using life table techniques, have calculated the risk of complications in the 40-50-year-old age group to be 1.5%.

Our patient was unusual in that he had previously never had any symptoms from his diverticulum, his presentation being acute. Brown and Ellis (1980) have reported a case of haematemesis and melaena in a 30-year-old man who had a long history of central abdominal ache since childhood and whose acute symptoms of intermittent melaena and haematemesis occurred over a period of 3 days. Laparotomy revealed a leiomyoma in the diverticulum with blood up to mid-ileal level. Moore and Johnston (1976) reported 2 cases in adults in their series but offer no details.

Haemorrhage occurs from a terminal branch of the superior mesenteric artery, which crosses the ileum to supply the diverticulum. Such bleeding manifested itself as melaena rather than haematemesis despite the rate of bleeding. However, as our case shows, haematemesis does not exclude a diagnosis of bleeding Meckel's diverticulum and this should always be considered in cases where there is no apparent source

of upper gastrointestinal bleeding. Small bowel enemas and technetium pertechnetate isotope scans are of little value in acute cases such as ours, but mesenteric angiography has been shown to be of benefit, and may be of use in making a pre-operative diagnosis (Hall, 1975).

Bleeding diverticulae are usually associated with gastric mucosa either in the diverticulum or in the adjacent ileal mucosa, and so are best removed by ileal resection rather than diverticulectomy.

A history of aspirin ingestion is often found in those presenting with upper gastrointestinal bleeds. Our patient had a long history of regular aspirin ingestion, but it would be difficult to evoke a causal association. Ordinary aspirin preparations are absorbed largely from the stomach, but certain enteric coated preparations (used for long-term medication) are absorbed in the small bowel with absorption being delayed for 6 hr or more (Lawrence, 1980). Future studies may usefully look more carefully for such an association. Two cases of intestinal perforation distal to the duodenal have been reported in patients on Osmosin (continued release indomethacin) (Committee on Safety of Medicines, 1983).

The number of Meckel's diverticulae diagnosed pre-operatively is very small. Ymaguchi's (1978) review of all Japanese cases found a rate of 5.7% and Moore and Johnston's study (1976) notes that none was diagnosed correctly.

We wish to emphasize the importance of a high

index of suspicion for Meckel's diverticulum in all cases of haematemesis and melaena. Furthermore, any obscure cause of intestinal bleed should suggest the possibility of a complicated diverticulum.

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