Gastro-intestinal haemorrhage—an unusual presentation of carcinoid tumours

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Summary

A case of small bowel carcinoid tumours causing gastro-intestinal haemorrhage is presented. The difficulties associated with pre-operative diagnosis and operative localization are discussed.

Introduction

Carcinoid tumours very rarely present with gastro-intestinal haemorrhage. When they do present in this way they are often small and the site of the tumour may be impossible to locate pre-operatively. Even at laparotomy they may be very difficult to recognize. These problems are illustrated by the following case.

Case report

A 52-year-old man presented following 3 episodes of dark red rectal bleeding. He was found to be anaemic with a haemoglobin of 6.3 g/dl. Abdominal examination was unremarkable and emergency upper gastro-intestinal endoscopy revealed no abnormality. The patient was transfused with four units of blood and a barium enema examination performed on the following day revealed no source of haemorrhage. For 2 months the patient remained well with no evidence of further blood loss. He then presented with further rectal bleeding and was again found to be anaemic. Repeat endoscopy was normal and colonoscopy revealed the presence of altered blood in the bowel lumen, but no mucosal lesion was seen. Radio-isotope scanning following injection of technetium pyrophosphate-labelled red blood cells failed to localize the source of the haemorrhage. Mesenteric angiography during an episode of further haemorrhage also failed to localize the source.

In view of the continued bleeding laparotomy was performed. This revealed 9 yellowish-white tumours each a few mm in diameter in the ileum within 150 cm of the ileo-caecal valve. At first these lesions were not visible, but were recognized as dark spots by means of transillumination of the small bowel using a fibre-optic light source. The large bowel appeared normal and was confirmed to be free of any tumours

by the per-operative passage of a colonoscope and transillumination from within the lumen of the bowel. There was no enlargement of the mesenteric lymph nodes and the liver showed no evidence of metastatic disease. In view of the large length of small bowel involved each of the lesions was resected individually by local excision.

Histological examination showed that the tumours were carcinoids exhibiting the characteristic argentaffin staining reactions. The largest tumour was associated with an area of overlying mucosal ulceration.

The patient made an uneventful postoperative recovery during which the 5-hydroxyindoleacetic acid (5-HIAA) excretion was found to be within normal limits.

Discussion

This case illustrates the well-recognized difficulty in locating the source of unexplained gastro-intestinal haemorrhage. Extensive pre-operative investigations may be negative and the diagnosis is only made by means of a carefully performed laparotomy.

To date only 5 cases have been reported in which carcinoid tumours have presented with gastro-intestinal haemorrhage. The majority of the tumours have been in the ileum (Schwartz 1966; Mann and Simpson 1957; Gurnett and Hartigan 1960; Hui, Reza and Busuttil, 1978), but in one case the tumour was situated in the duodenal bulb (Loebel, Jerez and Danzig, 1964). In only one out of the 5 previous cases did pre-operative investigations locate the source of haemorrhage—a barium meal examination showed a filling defect in the duodenum. In the majority of cases, including the present case, diagnostic laparotomy had to be performed. Typically those carcinoids which present with gastro-intestinal haemorrhage are small and therefore only identified with some difficulty. Identification can be aided by using the technique of transillumination of the bowel as described in this case. The case reported by Gurnett

and Hartigan (1960) was associated with multiple small bowel carcinoids similar to those described above indicating the importance of searching for more than one lesion.

The majority of small bowel carcinoids present at a late stage with intestinal obstruction or the carcinoid syndrome due to metastatic disease. In such cases the prognosis is poor. Presentation with gastro-intestinal haemorrhage can occur with very small tumours that have not spread beyond the bowel wall. If these tumours can be correctly identified and excised early the prognosis should be much improved.

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