Case report

Endoscopic diagnosis of a bleeding ileal carcinoid tumour

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SUMMARY Carcinoid tumour accounts for one per cent of all gastrointestinal neoplasms and has been reported in 0.5% of appendectomy specimens. Local gastrointestinal complications occur infrequently and we report a case of repeated and massive gastrointestinal haemorrhage from a non-metabolically active carcinoid tumour of the distal ileum diagnosed by colonoscopy.

Case report

A 53 year old man was admitted to a local hospital in December 1980 with profuse rectal bleeding of sudden onset. He had no previous history of rectal bleeding and his only gastrointestinal complaint was constipation of six years duration. There was no family history of gastrointestinal disease or bleeding disorders. Physical examination revealed a tachycardia and hypotension. He had left iliac fossa discomfort and fresh blood was detected on rectal examination. Sigmoidoscopy revealed blood in the rectum and lower sigmoid colon, but the bleeding site was not identified. He was transfused with 8 units of blood and the bleeding spontaneously stopped. A barium enema showed no abnormality and the patient was subsequently discharged. In January 1982 he was readmitted with further rectal haemorrhage which necessitated transfusion with 2 units of blood. He had observed five episodes of rectal bleeding between the two admissions, but had not reported these to his family doctor. Examination revealed slight epigastric discomfort and blood in the rectum, but his haemoglobin, haematocrit, platelet count, prothrombin time, and liver function tests were normal. Gastroscopy revealed a hiatus hernia with no associated oesophagitis. Colonoscopy to mid transverse colon showed mucosal hyperaemia, but no evidence of a bleeding lesion.

He was therefore transferred to Hope Hospital for assessment. At this time he was asymptomatic. Physical examination was normal, and sigmoidoscopy showed melanosis coli. Haemoglobin and serum iron were normal and faecal occult blood was not detected. A colonoscopy was performed which confirmed melanosis coli and detected first degree haemorrhoids. On entering the terminal ileum a 2 cm yellow polyp was observed 2 cm from the ileocaecal valve. The mucosa overlying this lesion was ulcerated (Figure) and a blood clot was visible within the ulcer. Biopsies were taken and histological examination showed carcinoid tumour. The remaining 5 cm of terminal ileum examined appeared normal. Urinary 5-hydroxy-indole acetic acid and a technetium liver scan were normal. At laparotomy the gastrointestinal tract appeared normal and a small bowel endoscopy was performed by introducing a colonoscope through an enterotomy. Apart from the polyp, no abnormality was detected and a right hemicolectomy with excision of the terminal 10 cm of the ileum was performed. Histology of the resected specimen confirmed carcinoid tumour near the ileocaecal valve invading the submucosa. The remainder of the ileum was normal and ascending colon showed melanosis coli only. After surgery the patient noticed altered blood in the stools on two occasions, but this spontaneously ceased. Two months later a repeat colonoscopy revealed a healthy ileo-transverse anastomosis and during five months follow up the patient has not developed further bleeding.

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Figure View of terminal ileum showing carcinoid tumour (arrow). Surface of polypoid lesion is irregular, representing mucosal ulceration.

Discussion

Massive gastrointestinal bleeding is a very rare complication of small bowel carcinoid tumour and we are currently aware of only 10 cases in the literature.¹⁻³ Haemorrhage is often intermittent as in the present case and may be due to several mechanisms. Firstly, it may be secondary to ulceration of the mucosa adjacent to the tumour, as in the present case, and seven of the 10 reported cases. Secondly, bleeding may occur from collateral vessels linking mesenteric veins obstructed by the tumour and finally, it may result from intestinal ischaemia.⁴

Preoperative diagnosis of a bleeding carcinoid tumour is extremely difficult. In most of the reported cases, extensive radiological and endoscopic investigations, including angiography, failed to detect the lesions and diagnosis was established at exploratory laparotomy.¹⁻³ The main reason for

failed preoperative diagnosis in these cases was the small size of the tumours and their localisation to the bowel wall. In six of the 10 reported cases, the bleeding carcinoid tumour was benign and did not exhibit either local infiltration or distant metastases. In our case, the malignant potential of the tumour is difficult to predict, but submucosal invasion is the first stage of spread,⁵ and it is likely that the patient would have eventually developed transmural infiltration and metastatic disease.

The position of the ileal carcinoid tumour in our patient enabled diagnosis at colonoscopy but the lesion was also clearly seen during endoscopic examination of the small intestine through an enterotomy. We would therefore advocate endoscopy of the small intestine, either during colonoscopy or at laparotomy, in all instances of unexplained lower gastrointestinal bleeding.

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