Case report

Infarction of a caecal lipoma simulating appendicitis

D G Mudd, A Rajavi, Joan M Alderdice

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Lipomas of the large bowel are rare, and their infarction has seldom been reported. In the present case, the symptoms and signs were suggestive of appendicitis and the final diagnosis of the infarcted caecal lipoma was made only after right hemicolecotomy had been performed and the specimen had been examined histologically. Further investigations uncovered paroxysmal nocturnal haemoglobinuria, a form of haemolytic anaemia, which may have contributed to infarction of the tumour.

CASE HISTORY

A 64-year-old man was admitted with a four-day history of generalised abdominal pain, settling on the right side. He was anorexic and nauseated. One loose stool had been passed 24 hours prior to admission. He had a mild pyrexia and was slightly jaundiced. There was tenderness with rigidity and rebound in the right iliac fossa, but the bowel sounds were normal. A diagnosis of appendicitis was made, with carcinoma of caecum as the differential diagnosis.

Laboratory investigations: haemoglobin 10.4 g/dl, white cell count 7.9 x 10⁹/l, mean corpuscular volume 105 fl (79-97), total serum bilirubin 70 umol/l, serum alkaline phosphatase 665 iu/l (115-320), serum gamma-glutamyl transpeptidase 179 iu/l (10-45), and serum amylase 125 iu/l (70-300). Abdominal radiographs gave no evidence of intestinal obstruction or perforation.

At operation the appendix was normal but a tumour was palpable in the posterior wall of the caecum. The adjacent colonic muscle was oedematous and the greater omentum was adherent to it. There was excessive fatty tissue in the bowel mesentery and in the right paracolic gutter. Right hemicolecotomy was performed. Pathological examination of the hemicolecotomy specimen revealed a 4.5 cm long soft, red, polypoid tumour situated in the caecum, 4 cm from the ileo-caecal valve. The colon for 5 cm distal to the tumour was thickened and oedematous.
Histological examination revealed a submucosal lipoma which had undergone haemorrhagic infarction (Figure). The ghost outline of overlying mucosal glands was seen. The submucosa was thickened and contained numerous necrotic fat cells with blood debris and inflammatory cells. The muscle coat was necrotic; fibrin thrombi were present in vascular channels within the tumour and at the serosa. The adjacent colon contained an excess of submucosal fat and the appendix showed fibro-fatty obliteration.

Post-operatively, the patient’s jaundice deepened until the fourth day (total bilirubin 151 µmol/l, alkaline phosphatase 347 iu/l) and then regressed. Further investigation showed that he suffered from paroxysmal nocturnal haemoglobinuria, a form of acquired haemolytic anaemia. The abdominal condition settled, and he was discharged from hospital on the 10th post-operative day. He has been followed up for two years and remains free from abdominal pain and rectal bleeding. To compensate for haemolysis he requires supplements of iron, folic acid and hydroxocobalamin, with occasional transfusion of washed red cells.

DISCUSSION

Intestinal lipomas are rare. Their usual site is the submucosa of the large intestine and they are more frequent on the right side of the colon than on the left. Only a minority cause symptoms, and these lipomas are likely to exceed 2 cm in diameter. Two lipomas have been found as synchronous tumours in the colon, and rarely there is diffuse lipomatosis of the wall of the large intestine involving the submucosa and subserosa and extending widely into the adjacent part of the mesocolon. The condition known as fatty infiltration or lipomatosis of the ileocaecal valve simulates a tumour in the caecum but is not considered to be a true neoplasm.

The various symptoms and signs produced by these tumours may be attributed to intussusception, infarction or occult faecal blood loss. Only one case of infarction has been reported in three series, comprising 53 symptomatic cases.

When the diagnosis of lipoma is made pre-operatively by barium enema or colonoscopy, local excision of the tumour or segmental colonic resection is performed, but in an emergency wide resection is often necessary, because the tumour is considered to be malignant. The coexistence of lipoma with carcinoma or adenoma is well established, and usually carcinoma is the symptomatic...
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tumour. However, in 38 cases of symptomatic lipoma, adenomas of the large bowel were found incidentally in 12 (32%).

Paroxysmal nocturnal haemoglobinuria is associated with mesenteric and hepatic vein thrombosis. It is possible therefore that the blood disease contributed to infarction of the tumour. The large mesenteric veins were not thrombosed, however, and the patient has had no further episodes of thrombosis while under review for two years. The oedema and haemorrhagic necrosis of the muscle in the ascending colon suggest that intussusception had commenced but was prevented by peritoneal tethering of the colon.

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REFERENCES

1. Hayes HT, Burr HB, Melton TW. Submucous lipoma of the colon: a review of the literature and report of four cases. Dis Colon Rectum 1960; 3: 145-8.

2. Haller JD, Roberts TW. Lipomas of the colon: a clinicopathologic study of 20 cases. Surgery 1964; 55: 773-81.

3. Castro EB, Stearns MW. Lipoma of the large intestine: a review of 45 cases. Dis Colon Rectum 1972; 15: 441-4.

4. Wychulis AR, Jackman RJ, Mayo CW. Submucous lipomas of the colon and rectum. Surg Gynecol Obstet 1964; 118: 337-40.

5. Morson BC. The large intestine. In: Symmers W St C, ed. Systemic pathology. 2nd ed. Edinburgh: Churchill Livingstone, 1978; 3: 1135.

6. Swain VAJ, Young WF, Pringle EM. Hypertrophy of the appendices epiploicae and lipomatous polyposis of the colon. Gut 1969; 10: 587-9.

7. Cabaud PG, Harris LT. Lipomatosis of the ileocaecal valve. Ann Surg 1959; 150: 1092-8.