

Colon cancer presenting as an appendiceal abscess in a young patient

Alvaro Arjona Sánchez, MD; Eva M. Tordera Torres, MD; David Cecilia Martínez, MD; Sebastián Rufián Peña, MD

The association between acute appendicitis and colonic carcinoma in the elderly is well known, but this is a rare entity in patients younger than 40 years of age. Colon cancer is found in only 3% of patients between the ages of 20 and 40 years. They tend to present with later-stage disease and higher-grade lesions but without differences in 5-year stage-specific survival when compared with the general population.^{1,2} The association between carcinoma of the colon and appendicitis is well known,³⁻⁶ but it is rare in patients younger than 40 years, having been described to date in only 11 cases.^{3,4} Colonic carcinoma in the context of an appendiceal abscess can be suspected in patients older than age 40 years with an atypical history of appendicitis, weight loss, anemia, prolonged symptoms and postoperative fecal fistulas,⁷ but in a young patient the possibility of a colonic carcinoma is less suggestive.

We describe a case in which a young man having no significant medical history presented with an apparent appendiceal abscess. Initially the abscess was drained and an appendectomy performed, but a postoperative complication of fecal fistula necessitated a cecal resection. The resected specimen contained a polypoid lesion that infiltrated the wall and occupied the appendiceal lumen, causing the appendiceal abscess. The polypoid lesion was found to be an enteroid adenocarcinoma of the cecum (T3N0).

Case report

A 27-year-old man, with no significant medical history, was seen in the emergency department with abdominal pain in the right lower quadrant of the abdomen of 9 days' duration. He also had a fever and leukocytosis. Abdominal ultrasonography demonstrated an appendiceal abscess with free fluid. On urgent laparotomy, an abscess was found in the right lower quadrant. This was drained, and the inflamed appendix was removed. A drainage tube was placed. In the immediate postoperative period, the patient complained of intense pain and had continuing fever and leukocytosis. Drainage indicated the presence of a fecal fistula, and further surgical intervention was carried out, at which abundant purulent liquid was found. There were adhesions between the small bowel and cecum with perforation at the base of the appendix. An ileocecal resection was carried out, allowing a 15-cm margin of normal tissue at each end. On gross pathological examination of the specimen at the site of perforation, a polypoid lesion was found in the cecum with transmural infiltration. The lesion measured 3 cm in dimension. The patient's postoperative course was smooth. On histopathological examination of the specimen, the polypoid lesion was found to be an enteroid adenocarcinoma of the cecum (T3N0). CT of the thorax, abdomen and pelvis gave normal findings. The serum carcinoembryonic antigen level

was normal. Colonoscopy up to the anastomosis showed normal bowel, and examination of a biopsy specimen taken from the area was negative for malignancy. At follow-up 6 months later, there were no signs of recurrent disease.

Discussion

The most common mechanism causing appendicitis is luminal obstruction by a fecalith or lymphoid hyperplasia, but obstruction by a tumour in the cecum was the suspected mechanism in our case. Perforation of the cecal wall increases the stage of the tumour to T4. The fecal fistula that was detected postoperatively can be a symptom of an unrecognized carcinoma of the colon.⁷ In our case, the lack of suspicion of a carcinoma of the colon led to the ileocecal resection (with free margins) rather than complete right hemicolectomy,⁵ and pathological study and subsequent monitoring of our patient did not demonstrate residual disease. Acute appendicitis with its complications is frequent in young patients, but its association with cancer of the colon is extremely unusual. Recognizing this entity in young patients is difficult because malignant disease is not suspected; nevertheless, its recognition is important because carcinomas in this age group are frequently advanced.

Competing interests: None declared.

Department of Surgery, H.U. Reina Sofía, Córdoba, Spain

Accepted for publication Sept. 28, 2006

Correspondence to: Dr. Alvaro Arjona Sánchez, Department of Surgery, Hospital U. Reina Sofía, Córdoba, Spain; alvaroarjona@hotmail.com

References

1. O'Connell JB, Maggard MA, Liu JH, et al. Do young colon cancer patients have worse outcomes? *World J Surg* 2004;28: 558-62.
2. Lee PY, Fletcher WS, Sullivan ES, et al. Colorectal cancer in young patients: characteristics and outcome. *Am Surg* 1994; 60:607-12.
3. Ramsay JA, Rose TH, Ross T. Colonic carcinoma presenting as an appendiceal abscess in a young woman. *Can J Surg* 1996;39:53-6.
4. Adebamowo AC, Ezeome ER. Acute appendicitis and colonic carcinoma in the young: report of two cases. *East Afr Med J* 1996;73:563-4.
5. Peck JJ. Management of carcinoma discovered unexpectedly at operation for acute appendicitis. *Am J Surg* 1988;155: 683-5.
6. Fabri PJ, Carey LC. Cecal carcinoma presenting as acute appendicitis: a reappraisal. *J Clin Gastroenterol* 1980;2:173-4.
7. Nitschke J, Richter H, Herguth D, et al. Acute appendicitis and postoperative fistula: symptoms of an unrecognised carcinoma of the colon. *Dis Colon Rectum* 1976;19:605-10.