Idiopathic Cecal Ulcer
Diagnosis by Colonoscopy Followed by Nonoperative Management

CRAIG R. BLUNDELL, MD, and DAVID L. EARNEST, MD

Idiopathic ulcer of the cecum has been considered a rare condition requiring surgical treatment because of a high incidence of complications, including bowel perforation. Cecal ulcerations are usually diagnosed at the time of surgery for presumed appendicitis or peritonitis of unknown origin. Preoperative diagnosis of cecal ulcer by barium enema has been unreliable and previous literature cites only one case diagnosed by colonoscopy. We describe four cases in which the diagnosis was made at colonoscopy. Three of our four patients were treated conservatively and did not require laparotomy. Idiopathic cecal ulcer should be considered in the differential diagnosis of lower gastrointestinal hemorrhage as well as atypical appendicitis. If the diagnosis of cecal ulcer is made by colonoscopy in a patient without evidence of an acute abdomen, conservative management may be followed by complete healing, avoiding unnecessary surgery.

Idiopathic ulcer of the large intestine was first reported by Cruveilhier in 1830 (1). Since then, although numerous reviews have described the clinical presentations and surgical management of this lesion (2–10), previous difficulty in correctly diagnosing idiopathic ulcer before surgery has resulted in almost no information about the frequency and natural history of the nonoperated case. In less than one year, we have established the diagnosis of idiopathic cecal ulceration in four patients. In each case, the diagnosis was made by colonoscopy and confirmed by negative evaluation for other known causes of cecal ulceration. Because of our lack of experience with medical management of this condition, one of the four patients was operated for diagnostic confirmation and for excision of the ulcer. Early and precise diagnosis in the subsequent three cases enabled expectant management without operative intervention. Presentation of these four cases and a short review of the literature form the basis of this report.

CASE REPORTS

Case 1. A 73-year-old Caucasian female with a long history of alcoholism was hospitalized because of general poor health. She was malnourished and unkempt and had numerous ecchymoses and abrasions. At the time of hospitalization, she was acutely intoxicated, confused, and dehydrated. Blood pressure was 158/80 and pulse 100. Examination of the head, eyes, ears, nose, and throat was unremarkable. The chest and heart revealed a soft apical systolic ejection murmur and no other abnormalities. The liver and spleen were nonpalpable, and she had no evidence of ascites. No peripheral edema was present. Except for altered mental status and diminished peripheral deep tendon reflexes, the neurological examination was negative. Rectal exam was unremarkable. All admission laboratory data were normal except for an SGOT of 56 IU/liter, Na 129 mEq/liter, K 3.3 mEq/liter and chloride 94 mEq/liter.

During the first week of hospitalization, there was steady improvement in her general status. However, on the eighth day she passed a large amount of bright red blood per rectum. Abdominal examination was unchanged. Sigmoidoscopy demonstrated bleeding from...
IDIOPATHIC CECAL ULCER

Fig 1. A 2.5-cm irregular ulceration in upper cecum (case 1). The ulcer margin (arrows) was slightly raised and the surrounding tissue was nodular and edematous.

above 20 cm. The bleeding episode was of short duration but resulted in a drop in hematocrit from 45 to 40 volumes percent. No transfusion was required. Two days later, colonoscopy was performed. A small nonbleeding polyp was found at the splenic flexure. In the cecum, a deep 2.5-cm benign-appearing ulceration was noted on the upper lateral wall (Figure 1). The tissue surrounding the ulcer base was nodular, edematous, and indurated. Multiple biopsies of the ulcer and adjacent tissue showed only marked edema with focal collections of polymorphonuclear leukocytes. There was no evidence of ameba, granulomas, mycobacteria, or malignancy.

Despite the fact that all evidence suggested a benign lesion, the patient underwent exploratory laparotomy. At surgery no abnormalities were noted except for minimal inflammation of the cecum. There was no palpable mass and no evidence of perforation. A right hemicolectomy with ileocolostomy was performed because of the possibility of carcinoma.

Gross examination of the resected specimen demonstrated the presence of the cecal ulcer seen at colonoscopy (Figure 2a). In addition, a 1.2 cm ulceration was also present in the tip of the cecum. Both ulcers were covered with a fibrin exudate consisting of acute and chronic inflammatory cells. Thrombosis of numerous small superficial vessels was noted (Figure 2b). Further histologic search for carcinoma, tuberculosis, parasites, and evidence of inflammatory bowel disease in the resected specimen was negative. The patient had a stable postoperative course and was discharged in satisfactory condition.

Case 2. A 33-year-old Caucasian female presented with a two-day history of mid-abdominal pain which later localized in the right lower quadrant of the abdomen. She had experienced no nausea, fever, or change of bowel habits. There was no history of prior abdominal pain and no chronic underlying gastrointestinal or general medical illness. Diet, travel, and medication history were unremarkable as was her review of systems. Physical examination at that time demonstrated mild abdominal tenderness in the right lower quadrant. Bowel sounds were normal and rebound tenderness was absent. Rectal examination was unremarkable. No specific diagnosis was apparent, and her abdominal pain slowly resolved during the next five days. When the same but milder pain recurred a week later, she was hospitalized for further evaluation. Shortly after admission, she experienced painless hematochezia. Physical examination demonstrated no petechiae or telangiectasia. Admission laboratory evaluation showed a hematocrit of 38 volumes percent, WBC 12,900 with a mild left shift, and a prothrombin time of 13.8 sec. Liver and kidney function tests were normal. The PPD skin reaction was negative.

Vital signs were easily stabilized with intravenous fluids. The hematocrit dropped from 38 to 30 volumes percent. Sigmoidoscopy to 20 cm demonstrated normal rectal mucosa with proximal bleeding. Upper gastrointestinal endoscopy gave normal findings. Subsequently, the patient underwent mesenteric angiography which identified an active bleeding site near the ileocecal valve (Figure 3). The radiologic findings were considered not typical for angiodysplasia or for neoplasm but instead suggested bleeding from a cecal diverticulum. Bleeding stopped spontaneously shortly after angiography and surgery was therefore not performed.

After 36 hr of observation, the patient underwent diagnostic colonoscopy. The endoscope was easily advanced into the cecum and its position confirmed by fluoroscopy. No mucosal abnormality was found throughout the colon except in the cecum where a 1-cm-diameter superficial erosion was noted adjacent to the appendiceal opening (Figure 4). Aspirates, brushings, and multiple biopsies of the ulcer were negative for ameba. The underlying tissue showed only signs of acute and chronic inflammation with infiltration of the lamina propria and submucosa with plasma cells and lymphocytes. The overlying exudate was composed of polymorphonuclear leukocytes and fibrin debris. No parasites, granulomas, malignant cells, or evidence for mycobacterium tuberculosis could be found. A barium enema examination was unsuccessful as the patient was unable to retain the barium. She was asymptomatic at the time of discharge and has been followed as an outpatient for six months with no recurrent symptoms. Follow-up colonoscopy to confirm healing of the ulcer has been prevented by her subsequently becoming pregnant.

Case 3. A 45-year-old Mexican-American male presented with a 12-day history of right-sided abdominal pain. Past medical history included adult onset diabetes