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Obstructing Giant Pseudopolyposis of the Colon in Ulcerative Colitis

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Pseudopolyposis of the colon is a well-recognized local complication of ulcerative colitis. Giant pseudopolyposis is uncommon, and its presentation as a complete obstruction of the colon is a rare occurrence. We report such a case, where retrograde flow of barium on double-contrast barium enema was completely obstructed at midtransverse colon. After resection by total abdominal colectomy, pathology examination of the specimen confirmed massive pseudopolyposis without malignancy. A brief review of the pathology and current literature is presented. (Henry Ford Hosp Med J 1987;35:259-61)

Development of inflammatory polyps, pseudopolyposis of the colon, is a well-documented local complication of ulcerative colitis and is reported to occur in 20% of all cases of ulcerative colitis (1). Pseudopolyposis usually presents as numerous discrete inflammatory polyps visible on radiographic contrast studies obtained in the evaluation of exacerbations of the colitis. Localized giant pseudopolyposis, however, is infrequent. Few reported cases of complete colonic obstruction are found in the literature (2-7). We report a case with complete colonic obstruction as the presenting symptom of inflammatory polyposis in ulcerative colitis.

Case Report

A 37-year-old white female was diagnosed as having ulcerative colitis approximately six years before admission and had done well on medical management with sulfasalazine. She was seen in the emergency room for complaints of right lower quadrant abdominal pain associated with nausea, vomiting, decreased appetite, and chronic nonbloody diarrhea for two weeks, as well as a 15 lb weight loss over the previous month. She denied recent melena or hematemesis. Her medical history was of interest in that she had a postpartum inferior vena cava thrombosis seven months earlier.

On physical examination her temperature was 38°C, pulse 92 beats/min, and blood pressure 108/88 mm Hg. A large mass in the right lower quadrant extended to midabdomen on the right side and to the periumbilical region. The mass was firm, immobile, but not attached to the abdominal wall, and was slightly tender to palpation. On rectal examination no masses were felt, and the stool was hemoccult negative. Laboratory findings included: hemoglobin 11.5 g%, WBC 13,700/µL with 64% polymorphonuclear cells, 25% bands, mildly elevated alkaline phosphatase, albumin of 2.0 g/dL, and high urinary specific gravity. A plain radiograph of the abdomen was unremarkable.

Shortly after admission the patient underwent double-contrast barium enema (Fig 1), which revealed a large intraluminal mass completely obstructing the midtransverse colon. The mass appeared to have multiple polypoid filling defects on its surface. Numerous polypoid filling defects were also seen in the descending colon.

A large polypoid mass totally obliterating the lumen of the colon at 90 cm was confirmed by colonoscopy (Fig 2). The colonoscope could not be advanced beyond the mass. The rectum appeared normal. A biopsy of the mass showed acute and chronic inflammation but no evidence of malignancy.

After bowel preparation and preoperative total parenteral nutrition, the patient was taken to the operating room where a total abdominal colectomy was performed with creation of an ileostomy and Hartmann’s pouch. On gross examination of the specimen, the colon was dilated to a circumference of 14.5 cm beginning 23 cm distal to the ileocecal valve. Inflammatory polyps were found beginning 8 cm distal to the ileocecal valve (Fig 3) and extending for 40 cm. The polyps measured from 0.3 to 2.3 cm in size, and were confluent, forming one large mass that measured 23 cm, and caused complete colonic obstruction. The last 18 cm of the specimen had a hemorrhagic mucosal surface with flattened colonic folds. Histologically (Fig 4), inflammatory polyps with extensive branching, comprised of benign nonneoplastic glands separated by inflamed exuberant lamina propria and numerous crypt abscesses, were seen. Acute and chronic inflammation and fibrosis were present in the submucosa. No evidence of malignant change in the primary mass or any of the 70 lymph nodes was identified.

The patient’s postoperative recovery was uneventful, and she was discharged on the 15th postoperative day.
Inflammatory polyposis of the colon is reported to occur in 20% of cases of ulcerative colitis and is the most frequently described local complication of the disease (1). These polyps are most commonly found in the transverse colon and splenic flexure, and more rarely in the ascending and descending colon. The diagnosis is usually made on barium enema. The disease most commonly presents with numerous inflammatory polyps scattered throughout the colon. These polyps are thought to be islands of residual normal or hyperplastic mucosa with intervening areas of ulceration (8). The peak incidence of occurrence of inflammatory polyps is reported to be in the third or fourth decades. They are most likely to occur in patients with extensive disease. The polyps are usually isolated and short (less than 1.5 cm in height) (9). Jalan et al (10) also reported a positive association of inflammatory polyposis and toxic dilatation of the colon. In some patients the polyps become giant, the reason for which is unknown. Fourteen cases of giant inflammatory polyp aggregations in ulcerative colitis have been reported in the literature (2-9,11-15). Of these, only seven cases had complete obstruction of the colon, while one described partial obstruction, signaling the extreme rarity of this event (2-7). Our case represents the eighth case we have been able to identify of complete colonic obstruction due to inflammatory polyposis in ulcerative colitis. The diagnosis is frequently made on the basis of a polypoid mass pattern seen on barium enema. The appearance of the mass may, however, mimic an intussusception as also described in these cases (6,11). In most reported cases the indication for surgery is a suspicion of malignancy. Long-standing ulcerative colitis increases the risk of malignancy [according to DeDombal et al (1), the risk is 0.4% in the first decade following diagnosis of the disease, increases by 2% annually in the second decade, and by 5.8% annually thereafter].

The presence of inflammatory polyps appears to be associated with a lower incidence of malignancy, and does not, in itself, dictate the need for surgical intervention. Indeed, all reported cases of giant inflammatory polyps have had benign histology. The gross appearance of the mass aids in the differential diagnosis. In carcinoma of the colon the lesions tend to have a flat, ulcerated surface, unlike the raised structures of pseudopolyposis. The histopathology is therefore not an indication for surgery, but in cases such as the one described in this report treatment of colonic obstruction is an obvious surgical indication. Only rarely has obstruction actually been reported as the prime indication for surgery. In cases of smaller, nonobstructing lesions, a more conservative approach has been advocated with periodic barium enema, colonoscopy, and biopsy (16). If extensive colonic resection is to be avoided, a careful interpretation of all diagnostic studies should be done to differentiate benign...
Fig 3—Pathology: gross appearance of specimen with giant agglomeration of inflammatory polyps beginning 23 cm distal to the ileocecal valve and extending for a length of 40 cm.

Fig 4—Histopathology: inflammatory polyps with intervening areas of ulceration. No malignant changes seen.

References