Osteomyelitis complicating regional enteritis

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While intraabdominal abscesses are a recognized complication of regional enteritis, the involvement of adjacent bony structures by such abscesses has not been described. We are therefore reporting two cases of regional enteritis complicated by contiguous osteomyelitis.

CASE REPORTS

CASE 1 C.M. (no. 97-17-32), a white male, was well until age 36 when he experienced the onset of diarrhoea. A diagnosis of ileocolitis was made one year later in 1953, at which time he underwent resection of the terminal ileum and ascending colon. Diarrhoea continued, and in 1956 he developed a perianal fistula. In June 1966, he noted pain and a mass in the area of the right hip. An abscess was drained surgically. This area failed to heal, and because of persistent drainage and right flank pain, the patient was referred to the University of Chicago Hospitals in February 1967.

Physical examination revealed right flank, hip, and costovertebral angle pain, a cutaneous fistula located just medial to the anterior superior iliac spine, and a perianal fistula. Methylene blue taken orally was seen in the cutaneous fistula and injection of contrast material into the fistula demonstrated multiple tracts communicating with the transverse colon and along the psoas muscle, pelvic brim, and anterior surface of the right sacroiliac joint (Fig. 1). Radiographs of the pelvis revealed osteomyelitis of the right ilium (Fig. 2). Radiographs of the colon confirmed the recurrence of disease at the ileocolic anastomosis. Laparotomy revealed a large abscess cavity eroding into the right ilium. The terminal ileum and the fistulas were resected, and an ileotransverse colostomy was formed. Histological features were characteristic of regional enteritis. Two weeks later the right ilium was resected, as well as the enterocutaneous fistula. The patient subsequently has gained weight, with significant improvement in diarrhoea.

CASE 2 R.S. (no. 89-54-15), a white male, was well until the age of 28 years, when he first began to experience abdominal pain, diarrhoea, and weight loss. Because of persistent symptoms for two years and a loss of 80 lb in weight, he was first seen at the University of Chicago Hospitals in September 1965. At that time, the patient also complained of low back pain and pain in both

buttocks. On his initial admission, physical examination revealed periumbilical and sacral tenderness, but otherwise was not remarkable. The small bowel radiographs revealed changes throughout the ileum consistent with regional enteritis (Fig. 3). Examination of the colon revealed an extrinsic mass in the presacral space displacing the colon anteriorly and eroding into the vertebral body (Fig. 4A). Laminograms of the lumbosacral spine revealed an area of destruction of the fifth lumbar vertebra and of the adjacent portion of the sacrum.

On 24 September 1965, the patient underwent resection of the terminal ileum. Histological findings were characteristic of regional enteritis. At surgery, a presacral abscess was noted but not drained in order not to contaminate the peritoneal cavity. One month later the abscess was drained transrectally. Culture of the drainage from the abscess revealed beta haemolytic streptococci and, after two weeks on large doses of intravenous penicillin, the patient was discharged on oral penicillin and Gantrisin. The abdominal symptoms subsided following surgery, although back pain and intermittent fever persisted and necessitated two additional admissions to hospital within four months after discharge. Radiographs of the lumbosacral spine one year later showed progression of the destructive vertebral changes (Fig. 4B). During the next two years he continued to experience intermittent back pain and fever in spite of a variety of oral antibiotics, including penicillin, tetracyclines, and lincomycin.

Because of persistent back pain and progressive destructive changes in the lumbosacral spine, the patient was readmitted in October 1967. At that time a barium enema revealed a presacral mass displacing the colon anteriorly. There was no evidence of recurrent intestinal disease. At laparotomy, a loop of small intestine was found adherent in the presacral space. No abscess was seen. The patient presently is being treated with ampicillin and a back brace, with symptomatic relief.

DISCUSSION

The onset of osteomyelitis as the result of local extension of an intraabdominal abscess is an unusual occurrence, rarely described in the medical literature (Slager, 1960). To the best of our knowledge, this complication has not been described before in association with regional enteritis. Con-

FIG. 1.

FIG. 2.

FIG. 3.

FIG. 1. *Injection of draining sinus reveals multiple fistulous tracts. A communication with the transverse colon is noted in the upper portion of the radiograph.*

FIG. 2. *Radiograph of the right half of the pelvis shows a large lytic lesion in the ilium representing osteomyelitis. The denser area indicates new bone formation. Fistulous communications with the overlying colon are seen.*

FIG. 3. *Small bowel radiograph demonstrates diffuse irregularity of the distal ileum.*

FIG. 4. Lateral view (A) of the lower spine demonstrates a large presacral mass which displaces the rectal gas shadow anteriorly (lower arrow) and is eroding into the vertebral body (upper arrow). One year later (B) more chronic changes are seen. The intervertebral space is narrowed, the vertebral bodies are irregular, and sclerotic areas are present.

sidering the frequency of abscesses and fistulas in regional enteritis, the reasons for the absence of reports of associated osteomyelitis are not clear. It is likely that current antibiotic therapy, coupled with inherent resistance of bone or periosteum, probably are important factors in preventing the occurrence of osteomyelitis in such cases.

SUMMARY

Two cases of osteomyelitis complicating regional enteritis are described.

REFERENCE

- Slager, R. F. (1960). Osteomyelitis of the lumbar vertebral body following drainage of a subdiaphragmatic abscess. *Amer. J. Surg.*, **99**, 377-379.