***Morganella morganii*-Associated Arthritis in a Diabetic Patient**

Morganella morganii is a rare etiologic agent of septic arthritis (1–3; M. P. Jarrett and A. I. Grayzel, Letter, Arthritis Rheum. 23:128–129, 1980). In 1980, a 75-year-old man with a history of osteoarthritis had the first case of *M. morganii* septic arthritis of the knee. He responded to intravenous antibiotics, but his course was complicated by the development of synovitis secondary to gout and pseudogout (Jarrett and Grayzel, letter). The second case, in 1986, was that of a 53-year-old woman with severely deforming rheumatoid arthritis who responded well to antibiotics and closed drainage and subsequently underwent successful arthroplasty (1). The third case report described a 95-year-old man with a history of recurrent rectal adenocarcinoma who was hospitalized for evaluation of a persistent right shoulder effusion. The patient had slow resolution of the joint effusion when treated with antibiotics (3).

Our patient was a 60-year-old man with a known case of diabetes mellitus and peptic ulceration who presented with a swollen knee and a discharging sinus for the last 1.5 months. There was no history of trauma, and he denied having fevers, chills, rigors, rash, or malaise. On examination, there was a discharging sinus with an ulcer 3 by 3 cm in size on the anterior aspect of the right knee. There was marked limitation of motion, with limitation of flexion to 50 to 70°. Pus exuded from the sinus was cultured and grew *M. morganii*. Laboratory data included a hematocrit value of 38%, a white blood cell count of 9,000 cells/mm³ (74% polymorphonuclear cells and 12% lymphocytes), and a fasting blood sugar level of 160 mg% (normal value, 80 to 100 mg%). Roentgenograms showed degenerative changes with widening of the joint space and periarticular soft-tissue swelling. The patient was treated with drainage of the swelling and the antibiotics to which the organism was susceptible in vitro. The *M. morganii* strain was found to be sensitive to amikacin, cefuroxime, cefadroxil, and cefotaxime and resistant to amoxicillin and cefoperazone. The patient was started empirically on lincomycin (500 mg three times a day) and later shifted to cefadroxil (500 mg twice a day), followed by cefuroxime (500 mg twice a day).

Despite open drainage and the cover of antibiotics with daily dressing for 17 days, the infection did not respond to the antibiotics. Repeat culture revealed pure growth of *M. morganii* with the same sensitivity pattern. Seeing no improvement, the attendants took the patient to a tertiary-care hospital,

where amputation was advised. However, nature took its own course when the patient developed a peptic ulcer perforation and succumbed to it.

Patients with gram-negative infections usually develop warm, erythematous, painful joints associated with fever and peripheral leukocytosis. However, patients with *Proteus mirabilis* and *M. morganii* infections may be culture positive and show few articular or systemic symptoms or signs of infection. In contrast to infections caused by *P. mirabilis*, *M. morganii* infections can be effectively treated by antibiotic therapy and closed drainage (1). But this was not seen in our case, where the joint, despite the open drainage and antibiotic cover, was almost completely destroyed. This could be attributed to the predisposing factor, diabetes, in this patient. Septic arthritis should therefore be given particular attention when present in an elderly patient with an additional predisposing factor.

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REFERENCES

1. Katz, L. M., R. J. Lewis, and D. G. Borenstein. 1987. Successful joint arthroplasty following *Proteus morganii* (*Morganella morganii*) septic arthritis: a four-year study. Arth. Rheum. 30:583–585.
2. Santa Eugenia, S., M. Sanmarti, C. Vilaplana, and A. Olive. 2002. *Morganella morganii* septic arthritis. Med. Clin. 118:399.
3. Schonwetter, R. S., and F. M. Orson. 1988. Chronic *Morganella morganii* arthritis in an elderly patient. J. Clin. Microbiol. 26:1414–1415.

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