Histoplasmosis of the wrist: a case report

Sr, Histoplasmosis infections are endemic in the midwestern and southeastern parts of the USA, as well as in Central and South America. Focal bone involvement, tenosynovitis and solitary monoarthritis have rarely been described [1–8], and only once in a native South American in Western Europe [6]. We describe a patient suffering from corticosteroid-dependent chronic obstructive pulmonary disease, who appeared to have monoarticular histoplasmosis of the wrist. He was successfully treated with radical surgery and amphotericin B.

A 71-yr-old man sought medical attention for a painful right wrist and swelling on the dorsal side of the hand in December 1994. He was a Hindustani, born in Surinam, and had lived in The Netherlands for 22 yr. In Surinam, he had worked in the agriculture and wood industries. He had been taking low-dose oral corticosteroids (5–15 mg daily) for emphysema for 20 yr. His past medical history also mentioned a gastric resection operation in Surinam.

The swelling turned out to be synovitis of extensor tendons, possibly the first symptom of rheumatoid arthritis. Laboratory investigations revealed an erythrocyte sedimentation rate of 58 mm and a C-reactive protein level of 13 mg/l without other abnormalities. Rheumatoid factor was not present. The swelling disappeared after a depot steroid injection. Two months later, it returned. A second injection was given, but did not improve the condition. Synovectomy of tendons and joint was performed in November 1995, and revealed extensive synovitis of the extensor muscles and synovitis of the radiocarpal joint. Histology of the synovium showed a granulomatous inflammatory process. Bacteria could not be cultured from the synovial fluid. Wound healing was complicated because of the persistent drainage of serous fluid. A second operation followed in January 1996. Again, no bacteria could be cultured and there were no acid-fast rods present in the specimen. A large swelling developed at the operation site in the months following the second operation. Yellow wound fluid was repeatedly aspirated, reducing pain and discomfort to a large extent. Repeated bacterial cultures did not produce results until April 1996. A Grocott stain (hexamine silver method) revealed clusters of microorganisms suggesting Histoplasma, and specific fungal cultures by the Centraal Bureau voor Schimmelcultures (Baarn, The Netherlands) revealed a microorganism which was identified as Histoplasma capsulatum Darling. Anti-Histoplasma antibodies could not be detected in the patient’s serum.

The patient was subsequently treated orally with itraconazole and later fluconazole without improvement. The swelling developed into a solid structure. The hand was very painful and aspiration of fluid did not provide relief of symptoms. In January 1997, it was decided to start treatment with i.v. amphotericin B. Scintigraphic examination showed an active process in the entire carpus; there were no other skeletal lesions. Destruction of the scaphoid bone was present on the X-ray. A third operation 1 week after starting amphotericin B showed a fibrous swelling on the dorsal side of the wrist fixed to the extensor tendons. Incision revealed a 3-mm-thick wall containing rice grains and necrotic debris. The musculus extensor indicis proprius tendon was ruptured and the dorsal side of the radiocarpal joint was largely missing. A proximal row carpectomy was performed to save some of the function of the hand. Histological examination showed chronic osteomyelitis of the scaphoid bone and necrotizing granulomatous inflammation. Histoplasma capsulatum was found in the synovium, but not in the bone. Amphotericin B was stopped after a total dose of 1140 mg because the patient suffered from renal function impairment.

Wound healing was uncomplicated after the last operation. At follow-up almost 2 yr later, there was no recurrence and the pain in the wrist had diminished markedly. The slightly decreased mobility of the wrist did not limit the patient’s activities. Histoplasmosis should be considered as an opportunistic infection [8–10]. Our patient had used prednisone continuously for the previous 20 yr and was, therefore, immunocompromised. He had probably contracted a latent histoplasmosis infection during his working career in Surinam.

The combined approach of radical surgery and intensive antymycotic therapy led to successful treatment of histoplasmosis in this case. The nephrotoxic drug amphotericin B is the gold standard in the treatment of histoplasmosis and is highly effective, even in immunocompromised individuals [11].

Although such a manifestation is rare, histoplasmosis should be included in the differential diagnosis of a chronic monoarthritis or tenosynovitis.

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Accepted 24 March 1999
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Accepted 24 March 1999
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