lytic bone lesions are a rare manifestation of infection with *Histoplasma capsulatum*. This article reports a case of histoplasmosis confined to the tibia causing osteomyelitis and a lytic bone lesion in an otherwise healthy patient.

**CASE REPORT**

A 60-year-old man was referred from his primary care physician in December 1999 with a 2-week history of pain and swelling in his left lower leg. He reported the pain had started suddenly with no recent trauma. He recalled striking his left leg on a metal carriage at work 2 months earlier, but noted there was no laceration of the skin and he developed only minor pain and swelling that resolved after a few days.

Physical examination revealed a 4×6-cm erythematous lesion with 2 cm of elevation on the anteromedial aspect of the left lower leg just proximal to the ankle. There were no open lacerations or drainage from the area, and the patient was afebrile.

Anteroposterior (AP) and lateral radiographs demonstrated an expansile osteolytic lesion at the junction of the middle and distal thirds of the tibial shaft (Figure 1). A computed tomography (CT) scan showed a 2×4-cm area of bone destruction within the thickened cortex. The CT scan also showed a 2×3-cm soft-tissue mass anterior to and communicating with the bony lesion (Figure 2).

The patient had a history of non-Hodgkin’s lymphoma (small follicular lymphocytic type) diagnosed in 1993. He was treated with chemotherapy, which consisted of cyclophosphamide, doxorubicin, vincristine, and prednisone (CHOP) with fludarabine and mitoxantrone, as well as eight courses of rituximab. His therapy was completed in November 1998. He denied any history of increased susceptibility to infection or any respiratory diseases since he finished his chemotherapy and has been otherwise healthy.

Surgery was performed on the tibial lesion in December 1999. The cortex was found to have a 6-mm anterior opening with purulent discharge. The cortex was saucerized, and the surrounding tissues were irrigated and debrided. Cultures were taken from the lesion, and vancomycin beads were inserted (Figure 3). The wound edges were loosely reapproximated.

Cultures initially were found to be positive for coagulase-negative *Staphylococcus* and *Streptococcus* viridans, but fungi also were noted and cultured. An infectious disease specialist was consulted.

Postoperatively, the patient was stable and afebrile, and the wound healed with no difficulties. A peripherally inserted central catheter line was inserted and intravenous ceftriaxone was started. He initially ambulated weight bearing with crutches with minimal pain and was quickly able to progress to ambulating with a walker.

One month later, the fungal culture report showed *H capsulatum*, and he was started on 200 mg of oral itraconazole twice daily. Eight weeks after the initial surgery, he underwent a second irrigation and debridement, and the vancomycin beads were removed. The lesion...

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was lavaged with antibiotics, and antibiotic-impregnated bone graft was then implanted. The wound was closed, and the incision site again healed with no difficulties. The patient remained afebrile during the entire postoperative period. The intravenous ceftriaxone was stopped in March 2000, and the catheter line was removed.

Follow-up radiographs in April and June 2000 showed the lesion was healing (Figure 4). The 11-month course of oral itraconazole was completed in December 2000. At all follow-up visits since the surgery, the patient remained afebrile, with no erythema or drainage from the wound and a well-healed incision site. He was able to ambulate without pain and did not require any assistive devices.

DISCUSSION

Histoplasmosis is caused by the fungus *H. capsulatum*, which is endemic in certain areas of North America. The majority of cases are seen in the Ohio and Mississippi River Valleys.1

Infection with *Histoplasma* can cause a variety of symptoms. The severity of the disease generally depends on both the level of exposure and the individual’s immunity. The most common manifestation of histoplasmosis occurs in the pulmonary system, resulting in pulmonary infection, hypoxia, fever, and infiltrates. Symptoms usually are limited to less than 3 weeks and require no treatment.2,3 Pulmonary calcifications can develop with larger or more chronic infections.4

Disseminated disease generally originates from a pulmonary infection and are seen more commonly in immunocompromised individuals. Fever, malaise, hepatomegaly, and splenomegaly are common symptoms.5

Bone manifestations of *H. capsulatum* are rare. Joint infections have been reported in the past, as well as cases of lytic bone lesions.6-8 Histoplasmosis duboisi, or African histoplasmosis, has been shown to more commonly lead to bone and joint infections.9,10

Treatment for histoplasmosis depends on the severity and location of the disease. Amphotericin B is regarded as the treatment of choice for severely ill patients. Itraconazole is effective in mild to moderate histoplasmosis infections without the side effects of amphotericin. Fluconazole and ketoconazole also are alternatives but are less effective. Any of these medications can be administered for months if needed with close monitoring for potential complications.

The patient reported in this case did have the potential for immunosuppression secondary to the non-Hodgkin’s lymphoma and chemotherapy. However, normal laboratory studies yielded normal values and the patient was otherwise healthy with no history of recurrent or opportunistic infections. The lymphoma was believed to be in remission since the completion of the chemotherapy.

This case describes a nonimmunocompromised patient who developed a rare case of histoplasmic osteomyelitis. The lytic bony lesion in the tibia appeared to be the only manifestation of infection, as no other signs or symptoms of disseminated histoplasmosis were evident throughout treatment.

In reviewing the literature, this case is unique in its presentation and location. Rare bone and joint infections with *H. capsulatum* have been treated effectively in the past with either amphotericin B or itraconazole.11,12 In this case, long-term itraconazole combined with repeated debridements proved effective in eradicating the histoplasmic osteomyelitis.

REFERENCES