

Images in Clinical Tropical Medicine

Cutaneous Coccidioidomycosis with Tissue Arthroconidia

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A 52-year-old man from Tijuana, Mexico, was studied for a 4-year cutaneous disease, characterized by verrucous lesions. He presented with fever and regional adenopathy (cervical, supraclavicular). Chest computed tomography scans showed normal pulmonary activity. He had a history of chronic alcoholism and uncontrolled diabetes mellitus. The presumptive diagnosis was cutaneous tuberculosis. In mycological studies, spherules were observed. Culture and subsequent PCR tests identified *Coccidioides posadasii*. Coccidioidin skin test was positive. Histopathology showed a suppurative granuloma. On histological examination, microabscesses with spherules in the inflammatory infiltrate and hyphae with arthroconidia in the corneal layer belonging to *Coccidioides* sp. were observed (Figure 1). Administration of intravenous amphotericin B and itraconazole achieved clinical and mycological cure.

The largest coccidioidomycosis-endemic area in the world is in the southwestern United States and northwestern Mexico.¹ Most of the cases are pulmonary² and can present with cutaneous dissemination in ganglionic regions; however, there are primary cutaneous cases (by inoculation) generally with a good prognosis.³ *Coccidioides* sp. is a highly infectious dimorphic fungus, which produces spherules with endospores in tissues and hyphae with arthroconidia in the environment or culture media.⁴ The presence of filamentous forms has been previously reported in diabetic patients with pulmonary and neurological diseases,^{5–7} but never in the skin. In this case, the presence of arthroconidia raises the possibility of contagiousness, although person-to-person transmission of coccidioidomycosis has not been previously demonstrated.

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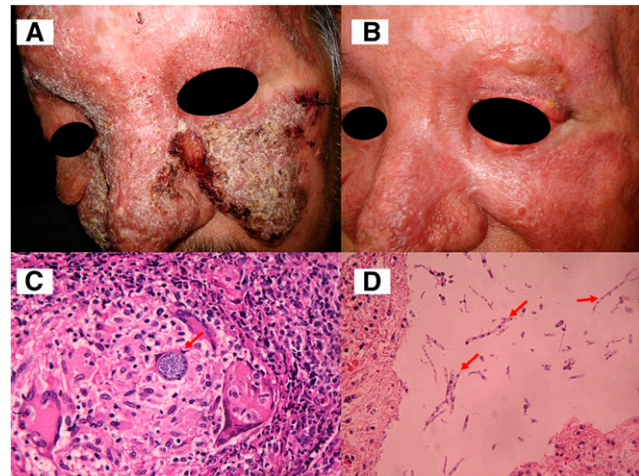


FIGURE 1. (A) Cutaneous coccidioidomycosis (basal). (B) Coccidioidomycosis after treatment. (C) Histopathology, with granulomatous infiltrate and spherule of *Coccidioides* sp. (hematoxylin and eosin [H&E], 40 \times). (D) Histopathology at the corneal layer with multiple filaments and rexyolytic arthroconidia of *Coccidioides* sp. (H&E, 40 \times). This figure appears in color at www.ajtmh.org.

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