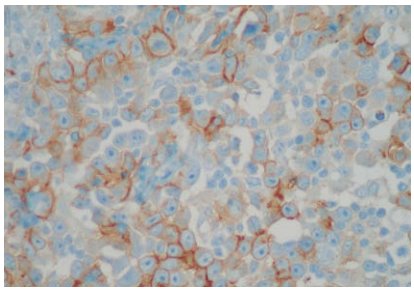

**Figure 3.** Immunohistochemistry: CD31-positive.

appear as asymptomatic reddish-violaceous lesions that resemble inflammation or ecchymosis. During progression, ulcers that bleed easily and fast-growing nodules appear.

Histology reveals proliferation of atypical endothelial cells with papillary projections toward the lumen; these form irregular vascular channels with a tendency to anastomose, lined by one or more cell layers. The tumor cells infiltrate, dissecting the collagen fibers and adipose tissue. Weibel-Palade bodies are absent and the markers CD31, CD34, Factor VIII-related antigen, and *Ulex europaeus* agglutinin are positive.[4]

Radiation-induced angiosarcoma is the least common form and has been described after treatment of both tumors and benign diseases. The latency period is 12 and 23 years, respectively.[5] Angiosarcoma of the scalp accounts for more than 50% of all angiosarcomas, irrespective of previous history of irradiation. Only 1 case similar to ours has been reported, in which a woman was diagnosed with an angiosarcoma 80 years after she received radiation therapy for tinea in childhood, with several previous basal cell carcinomas.[6]

Mean survival is low, and tumor size at diagnosis is the main prognostic factor. There are no treatment protocols. Surgery associated with postoperative radiation therapy is the treatment of choice in small tumors, although poorly defined margins will hinder treatment. Advanced stages are treated using radiation therapy,[7] palliative chemotherapy,[8,9] or immunotherapy, either alone[10] or in combination.[11]

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# Classic Disseminated Histoplasmosis with Cutaneous Involvement


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*To the Editor:*

Classical histoplasmosis is a fungal infection caused by *Histoplasma capsulatum* var *capsulatum*, most often seen in the United States, Central America, and Southeast Asia.

We describe a 42-year-old patient with human immunodeficiency virus (HIV) infection from Ecuador who had been residing in Spain for the past 3 years. He consulted for fever, toxic syndrome, and cough that began 2 months earlier.

The physical examination revealed erythematous violaceous papules on the face (Figure 1), fever of 39°C, and enlarged liver and spleen, but no other findings of interest. The laboratory workup revealed pancytopenia, elevated transaminase levels, and a CD4 count of 111/mm$^3$. The tuberculin intradermal reaction test (purified protein derivative) was negative. A diffuse, bilateral reticular-nodular pattern was seen on

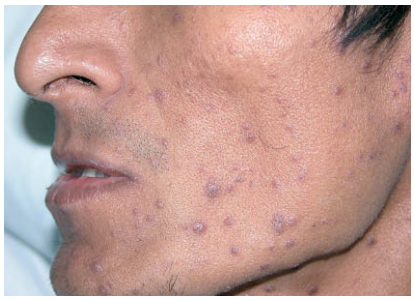

**Figure 1.** Erythematous-violaceous papular lesions predominantly located on the face.

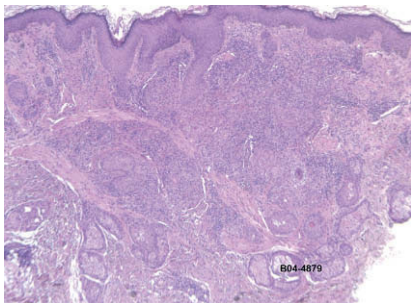

**Figure 2.** Lymphohistiocytic inflammatory infiltrate in the middle and deep dermis (hematoxylin-eosin, ×20).

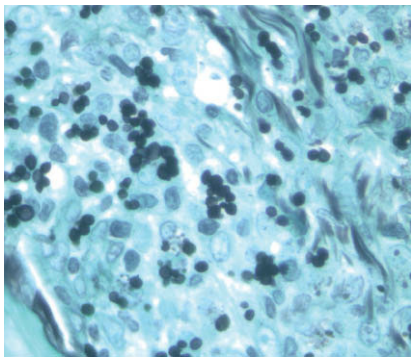

**Figure 3.** Structures 2-4 µm in diameter surrounded by a halo (silver methenamine, ×100).

chest x-ray. Sputum, blood, urine, and skin cultures were positive for *Histoplasma capsulatum* var *capsulatum*. A skin biopsy of the facial papules revealed a normal epidermis and lymphohistiocytic inflammatory infiltrate in the middle and deep dermis (Figure 2). Basophilic structures of 2-4 µm diameter, surrounded by a peripheral halo were observed within the histiocytes with positive periodic acid-Schiff and silver methenamine staining (Figure 3). The patient was treated with intravenous amphotericin B for 1 week, followed by oral itraconazole 400 mg per day,[1] with improvement in the clinical symptoms and analytical results after 10 days of therapy.

Histoplasma is harbored by fowl and bats, the feces of which contain fungi. Infection is usually by spore inhalation, rather than direct inoculation. The hematogenously disseminated form is more common in immunocompromised patients with CD4 counts below 200/mm$^3$, particularly if they have HIV infection.

Onset usually consists of fever, weight loss, enlarged liver and spleen, and enlarged lymph nodes, as well as papules and nodules on the scalp, face, trunk, or limbs. Mucosal involvement is seen as nodules, exophytic lesions, and oral or perianal ulcers,[2] and should be distinguished in the differential diagnosis from herpetic ulcers.[3]

The infection may occasionally manifest as nonspecific lesions, such as erythema multiforme.[4] Laboratory analysis reveals pancytopenia, as well as elevated lactate dehydrogenase and aspartate aminotransferase concentrations. A diffuse reticular-nodular infiltrate is usually seen on chest x-ray, although 50% of patients have normal radiographic findings. The differential diagnosis and assessment of coinfection should consider leishmaniasis, blastomycosis, and tuberculosis.[1] Although the diagnosis is confirmed by cultures in Sabouraud's agar, the histological study of any skin lesions will provide an initial diagnosis more rapidly, as culturing takes at least 2-3 weeks. Disseminated histoplasmosis can be diagnosed using a kit for polysaccharide antigen detection in blood and urine, and results are obtained within 24 hours.[5] The histoplasmin skin test, similar to the tuberculin test, is a useful diagnostic tool in our setting. The use of in situ hybridization techniques with skin biopsies has also been described.[6]

This patient represents a new case added to those described in Spain,[7] and illustrates the need for familiarity with imported diseases, given the increase in immigration seen in recent years.

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