Paracoccidioidomycosis and cryptococcosis with localized skin manifestations: report of two cases in the elderly*

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Abstract: Distinct cases of Paracoccidioidomycosis and Cryptococcosis with atypical and localized skin manifestation on the upper limbs of two elderly patients are reported. In the 2nd one, he presented asymptomatic pulmonary cancer; the blood tests for fungal infection were negative, and the etiologic agents were seen in skin biopsy samples. This report emphasizes the importance of the differential diagnosis of infectious diseases in elderly patients.
Keywords: Aged; Carcinoma; Cryptococcosis; Granuloma; Paracoccidioidomycosis

Case 1:

A 79-year-old woman presented lesions similar to milia on the right upper limb for 2 months (Figure 1). Histopathological examination showed epithelioid granulomas with a suppurative center and serial sections confirmed fungal structures compatible with Paracoccidioidomycosis (PCM) (Figure 2). Chest x-ray, counterimmunoelectrophoresis for fungi and HIV serology were normal. She was treated with itraconazole, 200mg/day for 12 months, with remission.

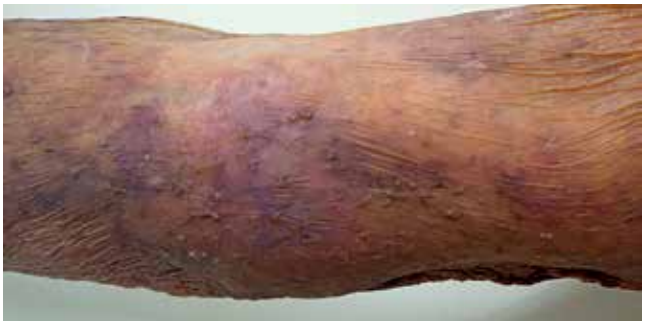

Figure 1: Yellowish papules similar to milia over an ecchymotic background on the right upper limb. On palpation, they were keratotic. Intense skin atrophy was observed

Case 2:

A 73-year-old man had a verrucous plaque on the left forearm for 2 years (Figure 3). Histopathological examination showed pseudoepitheliomatous hyperplasia and fungal spores permeating xanthomatous macrophages in the papillary dermis (Figure 4). Culture

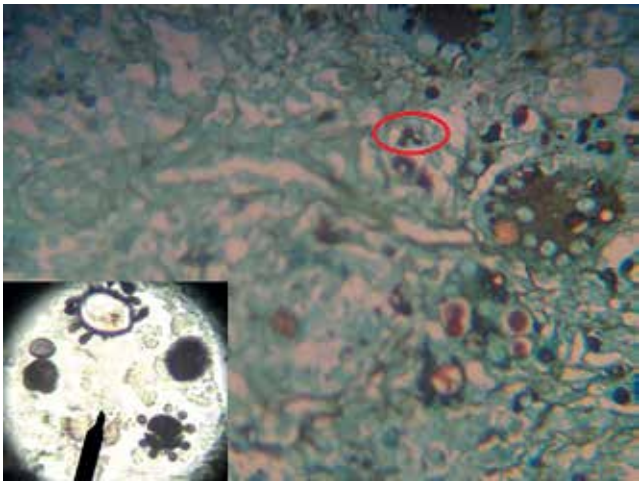

Figure 2: In the dermis, fungal structures with budding (Grocott staining). In detail, round corpuscles with multiple budding (100x)

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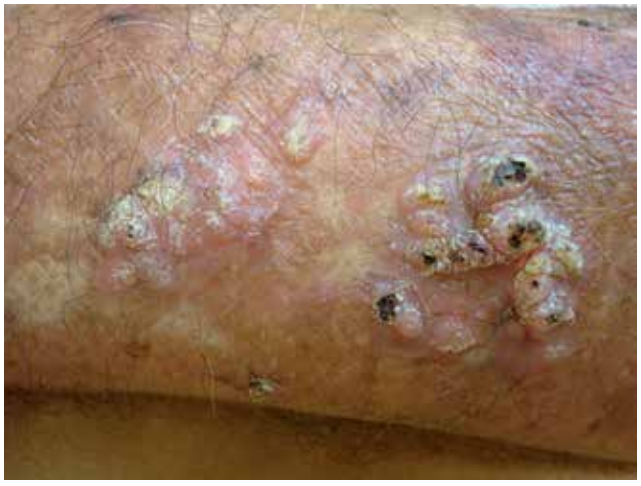

Figure 3: Verrucous plaques over an erythematous-infiltrated base, covered by blood crusts on the back of left forearm. Hypochromic cicatricial lesions and ecchymoses are also observed

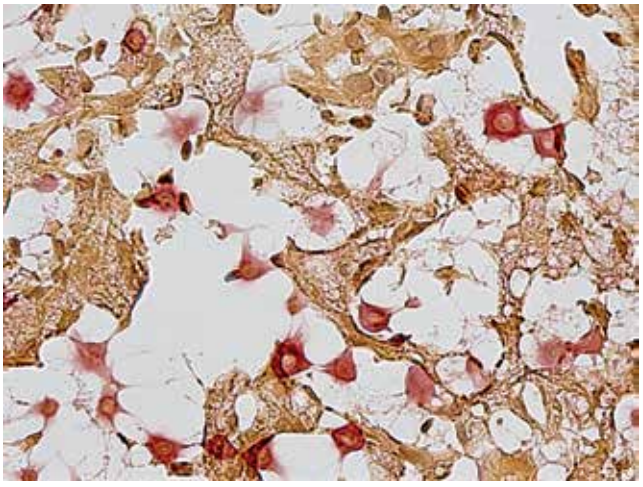

Figure 4: Mucicarmine stain showed a polysaccharide capsule suggesting Cryptococcus sp

confirmed *Cryptococcus neoformans*. Liquor puncture, counterimmunoelectrophoresis for fungi and serology for HIV were normal. He was treated with fluconazole, 600mg/day for 2 months, with improvement. Chest tomography showed image of pulmonary neoplasm; patient died.

Lesions similar to milia are an atypical manifestation of PCM. In immunocompetent individuals lesions are localized, there is formation of granulomas with few fungi and low serum titles, as in case 1. [1-4]

In case 2, diagnoses of chromomycosis, tuberculosis, PCM, and squamous cell carcinoma must be considered. Due to thick polysaccharide capsule and low antigenicity of *Cryptococcus sp.*, granulomas are not expected. Culture confirmed *Cryptococcus neoformans*, which presents *neoformans* and *gattii* varieties. The variety was not determined, however, *gattii* is common in immunocompetent individuals. [5-6]

It may be inferred that both patients presented probable predominance of Th1 response, justified by localized lesions, for no systemic involvement and no humoral response (negative serological tests) having been detected, and for positive response to antifungal treatment.❑

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