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Solitary Plaque of Chromomycosis on the Face: KwaZulu-Natal, South Africa

Running head: Solitary Plaque of Chromomycosis on the Face

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Abstract:

Chromoblastomycosis, also known as chromomycosis, is one of the most prevalent fungal infections caused by melanized or brown-pigmented fungi [1]. The most important causative agents are Fonsecaea pedrosoi and Cladophialophora carrionii [2]. The fungus is usually introduced into the skin by trauma i.e. by wood splinters; hence, the lesions are primarily found on the hands, feet, and legs [3].

Key Words: chromoblastomycosis face; chromomycosis face; Fonsacaea pedrosi; medlar bodies; solitary plaque; Africa

Introduction:

Chromoblastomycosis, also known as chromomycosis, is one of the most prevalent fungal infections caused by melanized or brown-pigmented fungi [1]. The most important causative agents are Fonsecaea pedrosoi and Cladophialophora carrionii [2]. The fungus is usually introduced into the skin by trauma i.e. by wood splinters; hence, the lesions are primarily found on the hands, feet, and legs [3].

Chromoblastomycosis is mainly a tropical or subtropical disease that may affect individuals with certain risk factors worldwide, such as HIV, organ transplantation, and immunosuppressive therapy [1,4].

The primary lesion at the site of an injury is chronic and slow-growing. It may be confined to the site of inoculation or develop satellite lesions secondary to autoinoculation [5]. The chronicity and the difficulty in treatment make it a significant public health concern, particularly in resource-limited settings [6].

We present to you a rare case of solitary chromomycosis on the face.

Case presentation:

A 52-year-old female was referred to the dermatology clinic with a 1-year history of a painless lesion on the right cheek. There was also no history of injury prior to the onset of the lesion. The patient was otherwise well. She was HIV-negative with no comorbid or immunosuppressive conditions and no recent travel history. She was previously treated with topical steroids prior to consultation without improvement.

On examination, a solitary well-demarcated, erythematous verrucous plaque was noted on the right

cheek measuring 8cm x 4cm. There was no palpable cervical lymphadenopathy.

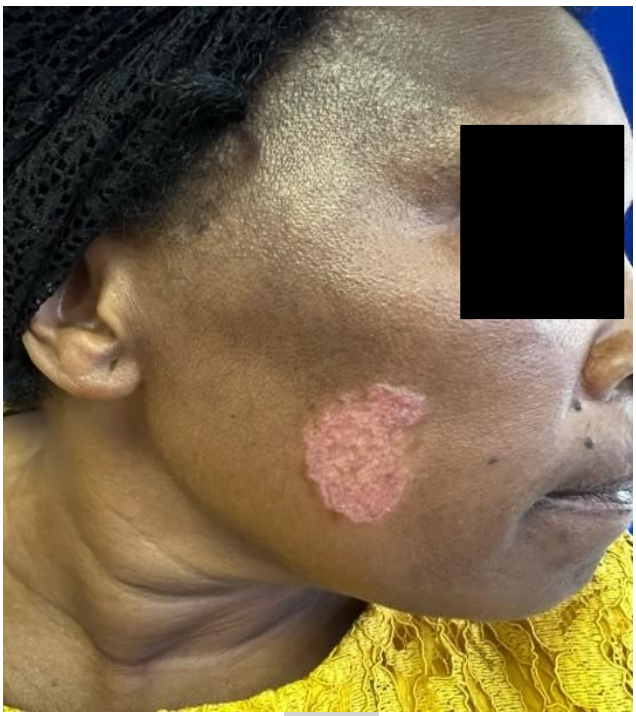

Figure 1

The differential diagnosis included fixed sporotrichosis, cutaneous sarcoidosis, tuberculosis verrucosa cutis, and granuloma annulare.

Complete blood count was normal.

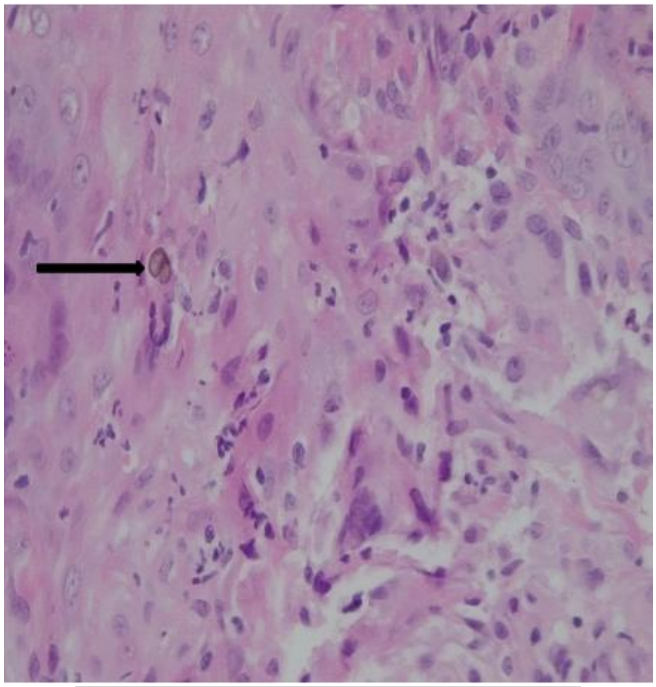

Figure 2: *Arrows depicting Medlar bodies.*

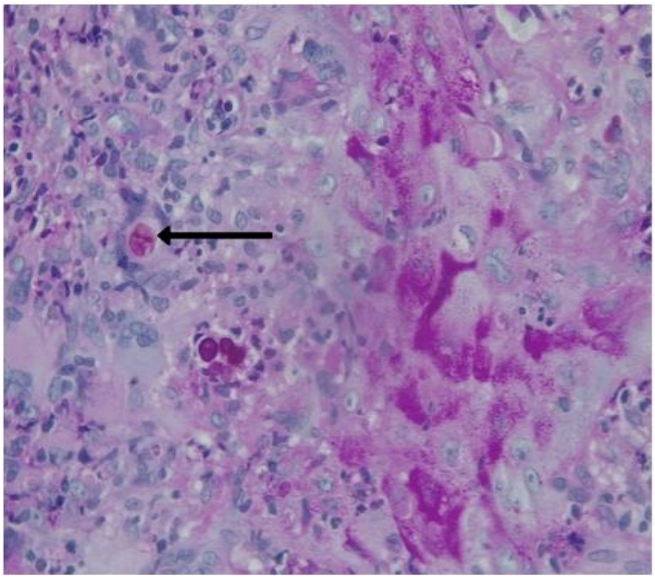

Figure 3: *Arrows depicting pigmented spores on PAS stain.*

A punch biopsy showed cuffs of small mature lymphocytes, histiocytes, scattered plasma cells, and copper pennies, also called Medlar bodies (figure 2), classic of chromomycosis.

Periodic acid shift stained positive, highlighting pigmented spores (figure 3). Mycology culture was positive for Fonsecea pedrosoi.

Chromomycosis was diagnosed, and the patient was commenced on oral fluconazole. Due to poor response to fluconazole at the three-month follow-up, the patient was then switched to itraconazole.

A good response to therapy was observed at nine months, with almost complete resolution of the lesion. (Figure 4)

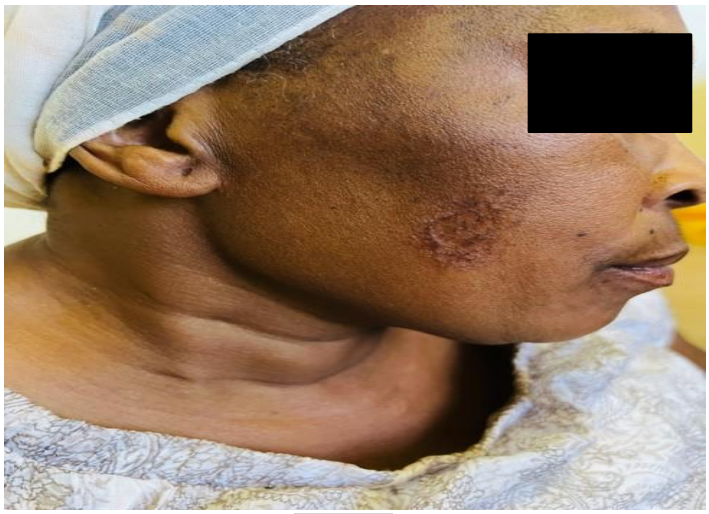

Figure 4

Discussion:

The prevalence and incidence is not known due to sporadic case reporting. The true burden of this disease in Africa may be underestimated due to the paucity of epidemiological studies on the continent [4]. Notably, Madagascar has the highest prevalence of chromoblastomycosis in Africa, followed by South Africa [6].

Fonsecaea pedrosoi is the most common etiological agent, implicated in 70%-90% of the cases reported worldwide [7].

According to the Carrión classification, there are five morphological types, mainly nodular, plaque-type, tumoral, cicatricial, and verrucous lesions, with the cicatricial and plaque-type being less common [6].

The most common affected sites are the hands, feet, and legs [3]. There are very few reported cases of solitary involvement of the face in the literature [4].

The diagnosis of chromoblastomycosis is based on KOH examination, identification of the organism in histological sections, and culture of the causal agent organism [6].

Treatment of chromoblastomycosis is a therapeutic challenge for clinicians due to the recalcitrant nature of the disease [6]. The most efficacious therapy is a combination of itraconazole and terbinafine at high doses, for a mean of 6 – 12 months [8]. Other therapeutic options include cryotherapy, 5 flucytosine, amphotericin B, as well as voriconazole and posaconazole [4].

Our case is unique due to the solitary site of the lesion on the face and the absence of trauma. Although chromoblastomycosis is very rare on the face, our case demonstrates the need to consider chromoblastomycosis in the differential diagnosis of a solitary erythematous verrucous plaque of the face.

Conflict of interest: None

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