Case Report - A Case of Chromoblastomycosis Effectively Treated with Oral Terbinafine

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ABSTRACT

A case of 55-year-old female presented with slowly growing multiple erythematous plaques with scaling and central clearing over dorsal aspect of right forearm for 6 months. Sclerotic bodies were seen under KOH examination. Histopathology of the lesions confirmed cutaneous chromoblastomycosis. The case was successfully managed with oral terbinafine.

Keywords: Chromoblastomycosis, Medlar bodies, Suppurative granuloma, Terbinafine

INTRODUCTION

Chromoblastomycosis is a chronic subcutaneous mycotic infection caused by pigmented or dematiaceous saprophytic moulds ubiquitous in the environment. The most common etiologic agents are Fonsecaea pedrosoi and Cladophialophora carrionii, both of which can be isolated from plant debris[1]. The prevalence is higher in rural populations and in countries with a tropical or subtropical climate. The infection results from inoculation of fungi after penetrating cutaneous injury. It usually affects the lower and upper limbs[2].

CASE REPORT

A 55 year old female from Sullia, Dakshin Kannada district of Karnataka, India presented with a slowly growing raised skin lesion over wrist and back of the hand. It was associated with itching. She was apparently normal 6 months earlier when she developed a small grey brown nodule, which gradually increased in size to form a plaque lesion. She admitted that she often used to do farming and pull weeds and had got minor abrasions on her limbs. She did not have any similar lesions elsewhere in the body and had been treated earlier with topical steroids without any response.

There was no past history of allergy or tuberculosis and she had received BCG vaccine at birth.

On examination multiple erythematous plaques of size, largest measuring 7×5 cm and smallest measuring3×3 cm with scaling. Central clearing present in some of the lesions with surrounding atrophic areas. Multiple brown black hyperpigmented scales are present in some areas. (fig 1)

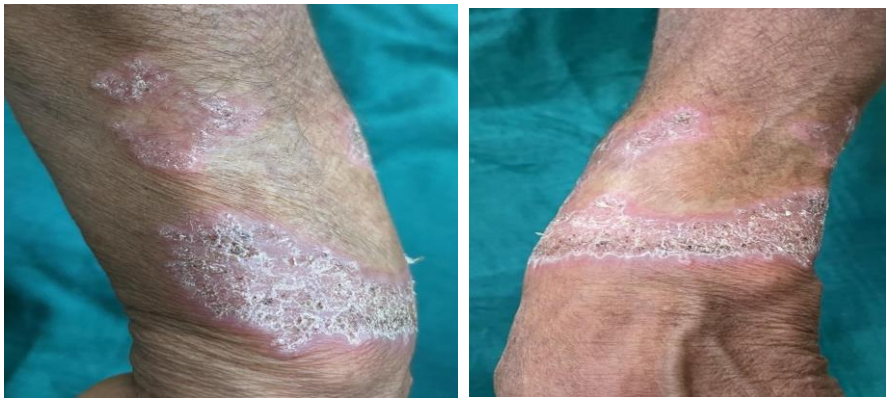
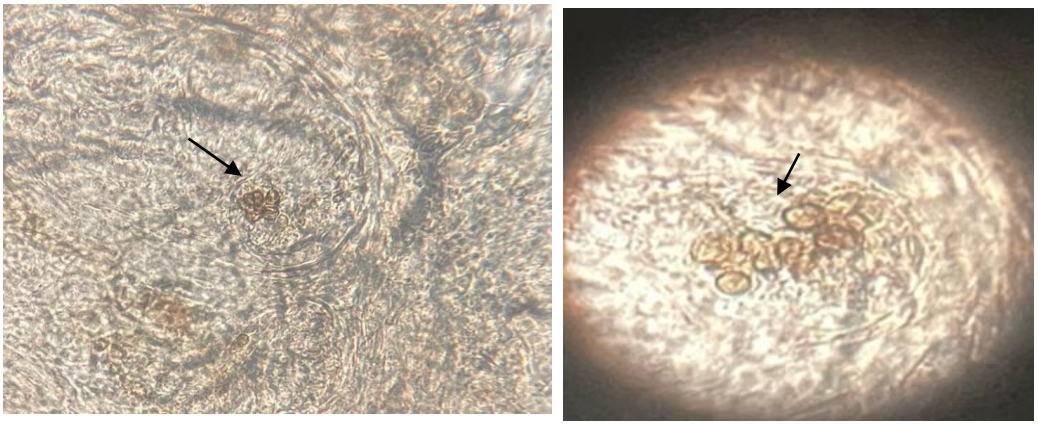
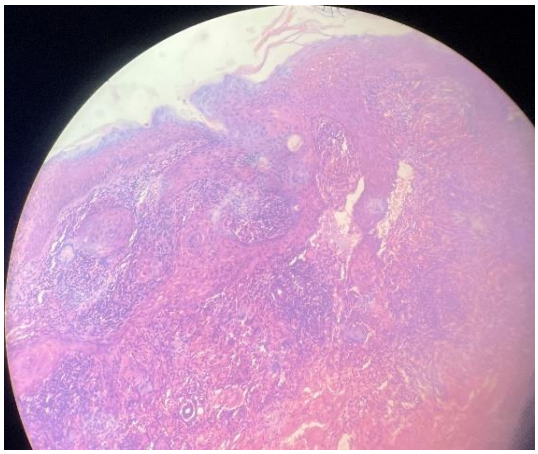


FIG-1 Skin scrapings were taken from the active edge of the plaque for KOH examination which showed few golden-brown round structures suggestive of copper penny/medlar bodies of chromoblastomycosis. (fig 2).

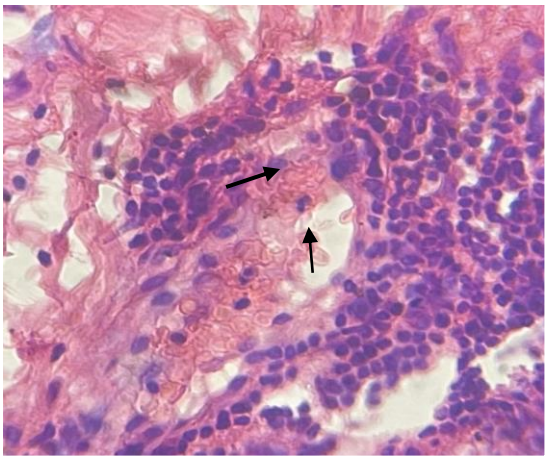


(FIG 2) Direct examination of skin scrapings in a potassium hydroxide mount, showing characteristic brown, multiseptate Medlar bodies;

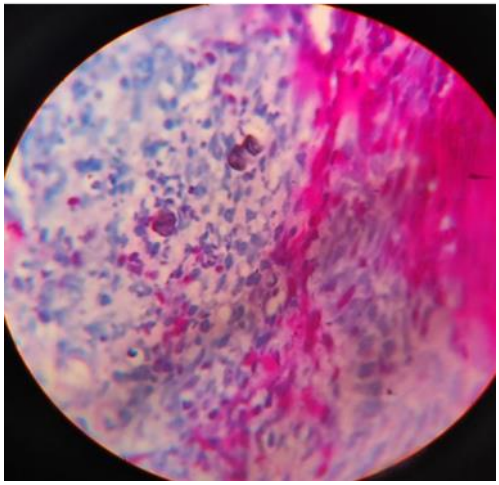
Skin biopsy sample was taken and sent for histopathological examination. A hematoxylin and eosin stained section of the biopsy material showed pseudoepitheliomatous hyperplasia with intraepidermal abscesses(Fig-3). The sub epithelium shows well-formed granuloma comprising of epithelioid histiocytes, multinucleated foreign body giant cells, neutrophils, lymphocytes, plasma cells and few conspicuous dark brown thick walled ovoid to spheroid bodies (copper pennies) seen within giant cells and free within the tissues.(FIG 4).



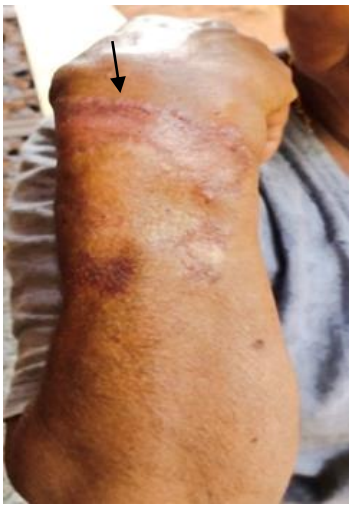
(FIG-3) Hematoxylin and eosin stained section of the biopsy material showed pseudoepitheliomatous hyperplasia with intraepidermal abscesses



(FIG 4) Characteristic Medlar bodies or 'copper pennies' within a mixed granulomatous and lymphohistiocytic infiltrate with neutrophils (haematoxylin and eosin, original magnification × 400.



(FIG-5) Fungal stains showed pigmented fungal sclerotic bodies within macrophage



(FIG-6) 2 Months posttreatment with terbinafine.

Fungal stains showed pigmented fungal sclerotic bodies within macrophage (Fig-5) Patient was treated for the same with oral terbinafine 500 mg once daily and the lesions had subsided. (fig-6)

DISCUSSION

Chromoblastomycosis is one of the subcutaneous mycosis. Infection is by the traumatic implantation and the organism remains localized at the site of inoculation in the skin or mucous membrane and underlying tissue. It may be caused by several species of dematiaceous or pigmented fungi which are among the commoner saprophytes growing in soil, decaying vegetation and rotting wood[3].

The lesions develop slowly. Initially a warty nodule limited to the skin and the subcutaneous tissue is produced at the site of implantation. The disease spreads, forming plaques. In long standing infections, lesions may become tumorous and even cauliflower-like in appearance[4]. Legs, arms and buttocks are the common sites of involvement. Unusual extracutaneous sites are pleural cavity, ileocecal region, laryngotracheal area and tonsils[5].

Chromoblastomycosis is associated with low cure rates and high relapse rates, particularly in chronic and extensive disease. Treatment choice and outcome depend on the aetiological agent, the size and extent of the lesions, the clinical topography, and the presence of complications (dermal fibrosis and oedema may reduce antifungal levels in tissue)[6].

Management consists of long courses of antifungal chemotherapy often combined with physical treatments such as surgery, cryotherapy and thermotherapy [7]. The antifungals that have shown greatest efficacy are itraconazole (200–400 mg daily) and terbinafine (500–1000 mg daily) given for at least 6–12 months, preferably at the higher doses if tolerated [8,9]. Pulse itraconazole (400 mg daily for 1 week every month) has been shown to be as effective as the conventional daily regimen[10]. Dual therapy with itraconazole and terbinafine is recommended as the drugs appear to act synergistically and are well-tolerated in combination[11].

CONCLUSION

Chromoblastomycosis, although infrequent must be considered in the differential diagnosis of chronic skin lesions particularly in patients from tropical and subtropical regions so that a early

appropriate therapy can be instituted. It is rarely fatal and has good prognosis, but is a therapeutic challenge. Though there are many treatment modalities for chromoblastomycosis we were able to manage with Oral Terbinafine alone. Lesion subsided and patient is on regular follow up.

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Conflict of Interest: None

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