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Chromoblastomycosis: An Unusual and Rare Case Report

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Abstract: ***Chromoblastomycosis is a chronic progressive cutaneous fungal infection caused by several naturally pigmented fungi [1]. It is also known as chromomycosis, cladosporiosis, Fonseca's disease, Pedroso's disease, phaeosporotrichosis, or verrucous dermatitis [2]. The disease was initially considered to be closely related to blastomycosis, which is a different type of a fungal infection caused by dimorphic fungi of the* Blastomyces dermatitis *sp. It is reflected in the name of the disease, which suggests it is a fungal infection caused by pigmented* Blastomyces *fungus [3]. In the tissues they form sclerotic cells or muriform cells. Dermal lesions can range from small nodules to large papillary like eruptions [3]. CBM lesions are clinically polymorphic and are commonly misdiagnosed as various other infectious and non-infectious diseases. In its more severe clinical forms, CBM may cause a series of clinical complications, and if not recognized at an early stage, this disease can be refractory to antifungal therapy [4].***

Keywords: Chromoblastomycosis, Chromomycosis, Fonseca's disease, Pedroso's disease, Cladosporiosis

1. Introduction

Chromoblastomycosis is a slowly progressive cutaneous mycosis caused by pigmented dematiaceous (black) fungi in tropical and subtropical climates. It was first described in 1914, in Brazil by Max Rudolph, a German physician. Causative organisms are Fonsecaea pedrosoi, Phialophora verrucosa, Fonsecaea compacta and Cladophialophora carrionii. They usually found in soil, wood, and rotting vegetables and infection often results from trauma such as puncture from a splinter of wood. The lower limbs and hand are commonly affected and usually present as nodular verrucous lesions [1]. Chromoblastomycosis is often seen in people who are immunosuppressed or those suffering from malignant diseases. However, it is also seen in healthy individuals. Small lesions can be surgically removed with wide and deep excision. Cryotherapy, topical heat therapy, systemic medications, and their combination have been reported to be effective [5].

2. Case Report

We report a case of cutaneous chromoblastomycosis in a 62 year old male patient who came to Surgery OPD with the complaints of pain on and off in his right leg since 2months. He gave the history of development of nodular discharging swelling over the postero-medial aspect of his right leg since 5 to 6 months and did not increase in size over the period of time. He went to the local physician but the swelling as well as the pain did not subside. After few days he visited the Surgery OPD MGM Hospital, Kamothe. On examination the swelling was nodular, mobile, tender and about 1 cm in diameter. Patient was not farmer by occupation was non-diabetic and did not give any history of trauma before the development of swelling. Excision biopsy of the swelling was performed in minor OT and it was sent to histopathology section.

Gross Examination

Received a single, soft to firm, gray white tissue bit measuring 1 cm.

Microscopic Examination

H&E stained section studied showed fibrocollagenuos tissue along with multiple aggregates of pigment producing colonies of fungi which were spherical and double contoured Sclerotic bodies (Figure 1 and 2)which were golden brown in colour. To confirm the diagnosis special stains for fungus (GMS and PAS) were done. Sclerotic bodies took up the special stains and hence they turned out to be positive and gave confirmation to our diagnosis as Chromoblastomycosis. (Figure 3 and 4)

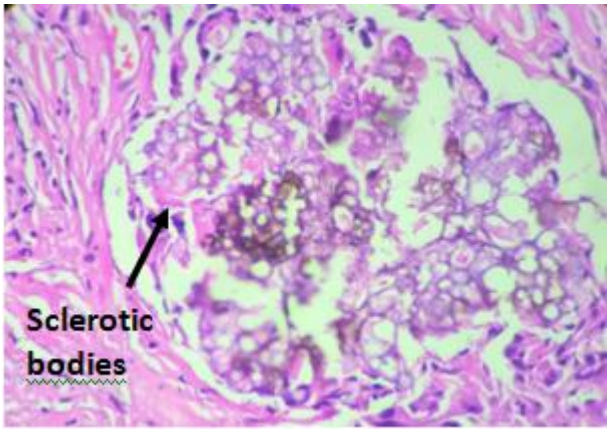

Figure 1: (10X view)

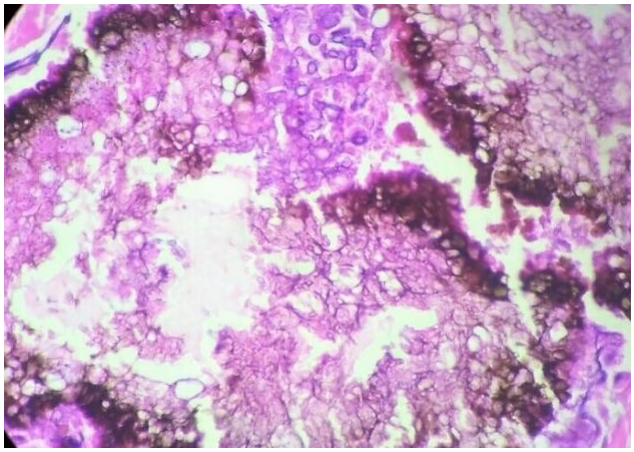

Figure 2: (40X view)

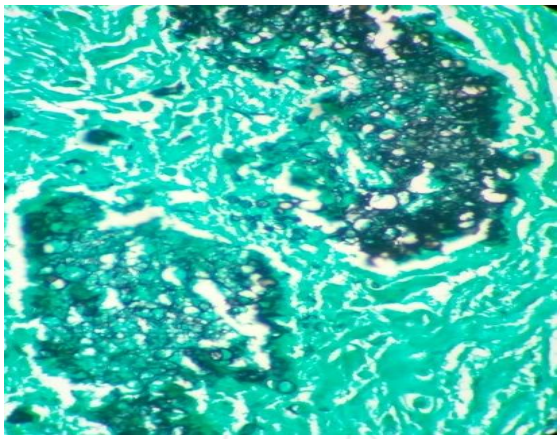

Figure 3: (GMS Stain-40X view)

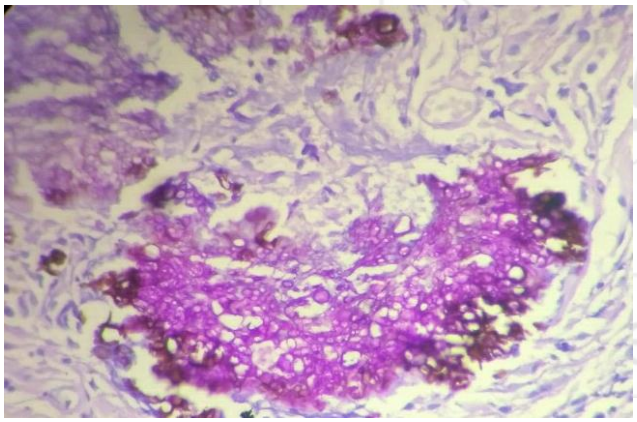

Figure 4: (PAS Stain-40X view)

3. Discussion

Chromoblastomycosis must be differentiated from other cutaneous fungal infections such as blastomycosis, lobomycosis, paracoccidioidomycosis and sporotrichosis [5]. Diagnosis is made by demonstration of fungus in the lesions. Culture of causative species on Sabouraud's dextrose agar can be done. An easier and more rapid method of diagnosis is bedside demonstration of sclerotic bodies in KOH examination. Sclerotic bodies are thick-walled single cells or cell clusters seen as brown-colored "copper pennies [6]."Routine H- and E-stained biopsy specimens are also helpful to rule out the diagnosis as we did in our case. Chromoblastomycosis usually initially commences as a solitary papule and progresses to plaques with nodular verrucous lesions. Secondary infection can cause ulceration and purulent discharge. Lymphadenopathy and elephantiasis can occur in severe cases [7]. Surgery was considered the treatment of choice for chromoblastomycosis before the advent of triazole antifungal agents. However, currently with the availability of potent antifungal agents like itraconazole and terbinafine which are the drugs of choice, Surgery is used only for limited or small lesions. A combination of fortnightly liquid nitrogen cryotherapy and pulsed monthly itraconazole was shown to shorten the duration of therapy and therefore could be a cost-effective approach for treatment of chromoblastomycosis [1].In our case firstly the excision biopsy was being performed and after the confirmation of the diagnosis on histopathology ,Patient was started on anti-fungal therapy.

4. Conclusion

Early diagnosis is important because chromoblastomycosis evolves slowly and is refractory to treatment. Epidermoid carcinoma occurs rarely in long standing cases [6]. Chromoblastomycosis is rarely fatal, and usually have good prognosis; but is a therapeutic challenge. In our case we found combination of surgery and anti-fungal therapy was effective in management of localized disease [1].

References

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