CHROMOBLASTOMYCOSIS RECURRENCE IN IMMUNOCOMPETENT HOST - A CASE REPORT

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ABSTRACT

A farmer aged 61years presented with a soft nodular swelling on the medial aspect of the right plantar region with a black centered ulcer. He gave history of similar small swelling operated 20yearsbefore suggesting recurrence. Present swelling has appeared within 3 weeks. The case was diagnosed as Madura foot with differential diagnosis of synovial cell sarcoma. Excised mass showed black colored foci with granules. Histopathological examination reportedit as Pheohyphomycotic chromomycosis. On culture pure growth of Fonsecaeapedrosoi of cladosporium type was obtained. Patient was put on antifungal treatment and advised regular checkups. No recurrenceis seen till date. No epidemiological datais available from the area he represents. Data for 'period of recurrence' has not been recorded conclusively. Recurrence of the present lesion after 20yearswith short duration of appearance is peculiar. Since the lesion has a history of recurrence, clinical cure would not be defined.

Key words: Chromoblastomycosis, Fonsecaeapedrosoi, recurrence, immunocompetent host, endemicity.

INTRODUCTION

Chromoblastomycosis prevails in tropical and subtropical countries.[1]Agriculturaland bare footed population, especially males are at risk. Etiological agents of chromoblastomycosis include severalphaeoid fungi.[1, 2]Fonsecae pedrosoiis commonest. Infections are caused by subcutaneous implantation of the agents. Sclerotic bodies are characteristic of chromomycosis.

Lesions are chronic granulomatous, slowly progressive and localized.[3 Chromoblasto-mycosis occur in various clinical forms. (Nodular, verrucose, tumoral, fistulous, and squamous).[4]

We report a case of Chromoblastomycosis due to Fonsecaea pedrosoiin an immuno-competent male with recurrence of long duration and short duration of onset. Such a case is rare from this region of Maharashtra (India).

CASE REPORT

A sixty one year old male farmer, from a village of Pune District (Maharashtra), presented with a swelling of 3 weeks duration on the medial aspect of the plantar region of right foot. The swelling had a small ulcer with black centre developed due to itching and pain. [FIG: 1]Similar swelling in same region was operated 20yearsbefore, without recurrence in-between.

There was no history of trauma or major illness. With no physical or systemic abnormality, his routine lab reports were normal. On examination, a nodular, tender, erythematous, shiny mass measuring10 x 6 x3 cms without skin eruptions, with foul smelling discharge was seen. USG reports suggested a nodular soft neoplastic mass. Provisional diagnosis of Madura foot, Synovial cell sarcoma and multinodular tenosynovitis was made.

Patient was admitted to undergo excision, debridement and skin grafting. The tumor like mass was excised and sent for histopathological examination andfungal culture.

Pathological findings reported the specimenas a soft tissue mass from right foot plantar region of 8.5 X 5.5 X 0.5 cms in size, multilobular, consisting of bits of tissue with partly covered skin. The mass was vascular with thick walled cystic areas having hyperchromatic (black) foci within the lesion, filled up with soft dark brown to black granules.[FIG: 2]

Microscopic examination of H and E stained section showed skin with hyperplastic epidermis and deep dermis. Subcutaneous tissue showed scattered granules composed of central fungal ball surrounded by epithelial cells and foreign body giant cells.[FIG: 3] Fungal ball was composed of few brown to black small short septate colored hyphae and oval bi-tri planate structures revealing the presence of sclerotic bodies[FIG: 4] with an eosinophilic exudates suggestive of Pheohyphomycotic fungal granuloma, (Chromomycosis).

The etiological agent was confirmed to be Fonsecaea pedrosoion obtaining pure culture of on Sabouraud's

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Fig 1: Tumoral, nodular swelling on plantar regionof right foothavingulcer with black center,without discharge

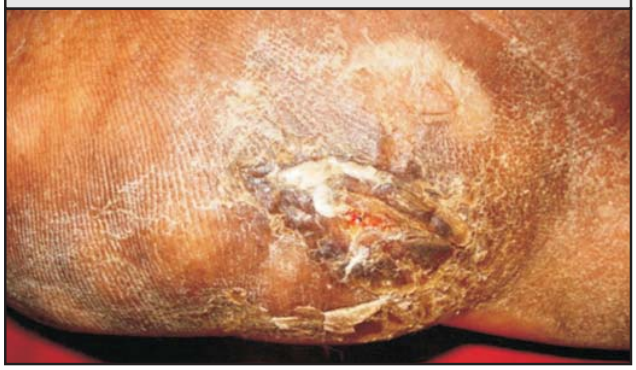


Fig 2: Photograph of excised mass showing black foci filled with black granules

Fig3: Section stained with Hand E showingskin withhyperplastic epidermis anddeep dermis with hyperchromatic fungal foci surrounded by epithelialcells and foreign body giant cells.(400X)

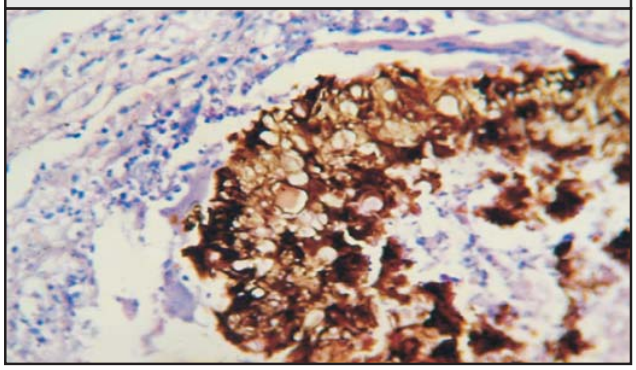


Fig 4: H and E stained section showing scattered, brown colored, planate sclerotic bodies. (400X)

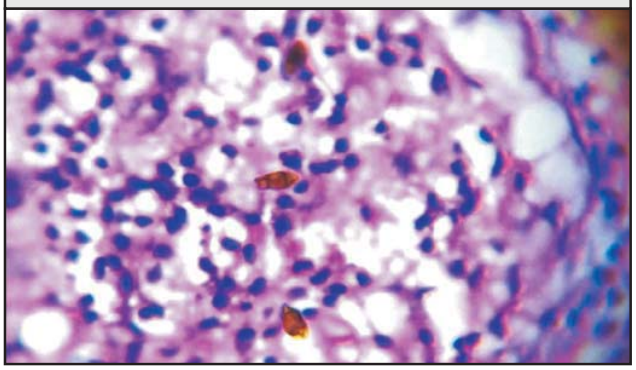
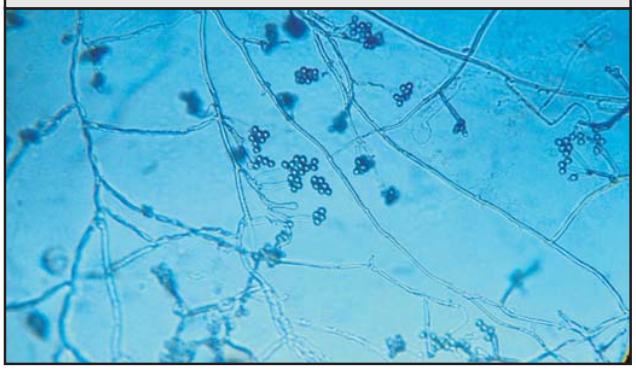


Fig 5: Blackish green olivaceous colonies with suede like surface on Sabouraud's dextrose agar after 3 weeks of incubation at 25^{0}C

Fig: 6 Slide culture photograph of F. pedrosoi showing cladosporium type of conidiation after 2 weeks on Sabouraud's dextrose agar.(400 X)



dextrose agar after 2 weeks of incubation at 25^{0}C.

The colonies were typically olivaceous-black from obverse and reverse with a suede surface.[FIG: 5]Slide culture showed brown to black pigmented septate branching hyphae with simple conidiophores, bearing irregularly produced dark greenish black, oval to round conidia. Conidiationwas of cladosporium type without lateral and budding conidiospores. [FIG: 6]

DISCUSSION

Chromoblastomycosis is a chronic, localized infection of skin and subcutaneoustissue.[5] The etiological agentsare Fonsecaea pedrosoi, Fonsecaea compacta, Phialophora verrucosa, Cladosporium carionii, Rhinocladiella aquaspersa, and Botryomyces caespitosus. [6]F. pedrosoi being common. Proliferation may occur around the area of inoculation and may develop into epidermoid

carcinoma.[3]Confusion between chromoblastomycosis and phaeohyphomycosis has always prevailed.[7]

In present case F. pedrosoi was the etiology but peculiarly of the cladosporium type of sporulation.

Chromoblastomycosis is geographically distributed in tropical and subtropical countries like South and Central America and Africa.[7] This case is from rural area of Pune district of Maharashtra, in India. There are no documented reports of similar cases from the area this patient represents.

Thirty cases have been reported in Indian literature from 1957 to 1997 (40 years) with occasional recent reports, highest being from South India.[8]

Common age of affected person is from 20 to 60 years, occurring more in male. This patient was 61 yr. old male.

Sporadic reports mention lesions at unusual sites like face alae of nose. In the present case, the lesion occurred on lower extremity on the plantar region which is a common site.[2]

History of similar lesion operated 20 years back suggests recurrence. Chromoblasto mycosis lesion appear within 6 months to 6 years, but in this case it has appeared within 21 days, suggesting hyperplastic nature, contrary to slow growing granulomatous lesion. Duration of recurrence is not conclusively documented. This lesion has reappeared after 20years

Clinically chromoblastomycosis is hallmarked by presence of verrucose warty dark lesion. Five different clinical forms of chromoblastomycosis described are verrucose, vegetative, fistulous, nodular, and plaque like.[9]This lesion was tumoral and nodular type, without any warty nature, suggesting that recurrence of chromoblastomycosis may start from within the tissue before it erupts on skin.

Histological findings were characteristic of chromoblastomycosis but as a case of recurrence no different significant findings were observed. Chromoblastomycosis must be distinguished mycologicaly and hisopathologically from the dimorphic fungi. It may mimic protothecosis, leishmaniasis, and verrucose tuberculosis. Chromoblastomycosis can't be diagnosed by sclerotic bodies alone. Isolation of F. pedrosoi is confirmative, as in this case.

One of the most characteristic features of the chromoblastomycosis is its unresponsiveness to treatment.[10]This patient was put on oral fluconazole and metronidazole with follow up for six months. No recurrence is noted till today. However due to history of recurrence, clinical cure can't be ascertained. Surgical excision debridement or electrocution should be an avoided treatment for fear of dissemination.

In this case, faster growth without warty lesion with a radiological report of neoplastic mass must have led to a decision of excision. Differential diagnosis of Madura foot, sarcoma was also considered before excision. Skin grafting was carried out.

There are currently no commercially available serological tests for the diagnosis of chromoblastomycosis.

Infrequently new cases are reported in India every year, ratifying the necessity for further studies on this disease.

Present case is reported for its unusual presentation with context to area, recurrence, short duration of appearance, longer duration of recurrence of the lesion and the cladosporium type nature of the agent, the host being immunocompetent.

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