

# *Fonsecaea pedrosoi* causing leg abscess

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## Abstract:

Chromoblastomycosis is a localised fungal infection of cutaneous and subcutaneous tissue caused by dematiaceous fungi. Etiological agents are black moulds found growing as saprophytes of woods. Here, we report a case of *Fonsecaea pedrosoi* causing leg abscess in the 41-year-old male patient.

## Keywords:

Chromoblastomycosis, *Fonsecaea pedrosoi*, *Phialophora verrucosa*

## Introduction

Chromoblastomycosis is a slowly progressing localized fungal infection of skin and subcutaneous tissue. These fungi are widely distributed as saprophytic organisms in soil and decaying vegetables. The disease most frequently involve lower extremities and the mode of infection is by inoculation of phaeoid fungi into the subcutaneous tissue through trauma.

## Case Report

A male patient aged 41 years presented to the surgery outpatient department, Government Medical College, Manjeri with complaints of swelling of the left leg of one-year duration. On examination, it was a cystic fluctuant non-tender swelling of size 2 cm × 3 cm. He gave a history of trauma with a wooden piece four years back at the same site. A provisional diagnosis of implantation dermoid was made. Fine needle aspiration cytology was done and thick pus was drained. The sample was sent to the Department of Microbiology for bacterial, fungal and mycobacterial culture.

Gram staining showed Gram-positive filaments suggestive of fungal hyphae. Ziehl-Neelsen staining was done and was negative

for acid fast bacilli. The routine bacterial culture was sterile. Pus was inoculated into Sabouraud Dextrose Agar with and without antibiotics. After seven days of incubation, greyish velvety colonies appeared which turned dark on further incubation [Figure 1]. The reverse of the tube was black in colour. Wet film showed branched septate hyphae, tree-like branching patterns of conidiophores with broad-based ovoid conidia in branching chain arrangement [Figure 2].<sup>[2]</sup> Treatment was initiated with oral Itraconazole 200 mg/day for three months. Swelling subsided and is on follow-up for the last four months.

## Discussion

Chromoblastomycosis is a non-contagious chronic localised fungal infection of cutaneous and subcutaneous tissue caused by several species of phaeoid fungi such as *Fonsecaea pedrosoi*, *Cladophialophora carrionii* and *Phialophora verrucosa*. Of these *F. pedrosoi* causes majority of infections.<sup>[1]</sup>

Cutaneous and subcutaneous infection begins when fungus is introduced by a break in dermal barrier. Rubin *et al.* in 1991 reported a case of chromoblastomycosis following abrasion caused by rubbing against tree and investigators were able to isolate the etiological agents by culturing

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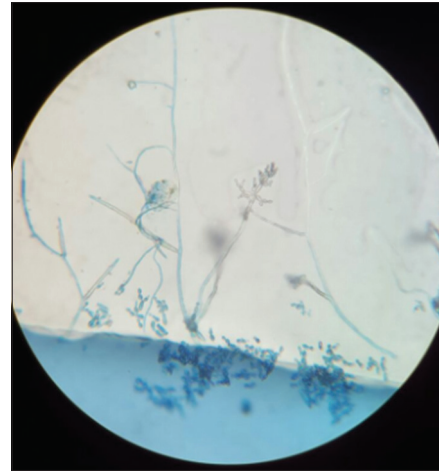
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**Figure 1:** Sabouraud Dextrose Agar: Dark grey surface covered with velvet-like mycelia reverse is black



**Figure 2:** Conidiophore with tree-like branching and conidia in branching chain formation

tree branch. In this case, the patient is a farmer and had a history of trauma. No history of systemic hypertension, diabetes mellitus, tuberculosis or any other illness. Most of the patients diagnosed to have chromoblastomycosis resides in rural areas and are involved in agriculture activities.

Chromoblastomycosis occurs most often in individuals who have no apparent underlying illness or disability. Some data suggest that genetic susceptibility also exists. Other people at risk are those on immunosuppressive agents.

The lesions usually start in the extremities as painless itchy papules or nodules. Initial lesions of chromoblastomycosis appear as erythematous papules, which gradually enlarge to display varying morphology such as verrucous nodules, cauliflower-like tumours and psoriasis-like plaques. In the later stages of infection, dissemination may occur by extension of the lesions as satellites along the lymph vessels or by autoinoculation through scratching. The main complication is a secondary infection, which may be frequent and lead to gross lymphoedema and elephantiasis. If not treated these lesions can persist for months.<sup>[3]</sup>

Microscopy and culture are simple and highly sensitive methods for diagnosis. Serological tests are not relevant. Definitive treatment consists of surgical excision of areas of infection along with margin of uninfected tissue. Cryosurgery using liquid nitrogen and carbon dioxide laser are other methods in which success has been reported. Terbinafine and Itraconazole are antifungals found to be effective in patients who failed to respond to other therapies.

However, prolonged therapy for six to 12 months may be needed.<sup>[4]</sup> Spontaneous resolution has been reported in some cases, but rare.

Our patient was treated with oral Itraconazole 200 mg daily for three months and responded well. There are reports in literature which shows cases of chromoblastomycosis successfully treated with Itraconazole and combination of Itraconazole and cryotherapy.<sup>[5,6]</sup>

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### Conflicts of interest

There are no conflicts of interest.

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