



CHROMOBLASTOMYCOSIS: A RARE CASE OF INFECTION BY *Fonsecaea compacta* FROM WESTERN MAHARASHTRA, INDIA

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Abstract- Chromoblastomycosis is a fungal infection of the cutaneous and subcutaneous tissues. It is non contagious and chronic fungal infection. Several species of pheoid or dematacious fungi which are saprophytes are the causative agents. Infection occurs when the causative agent enters the body with trauma especially with wood splinters or thorn pricks. Diagnosis is done by demonstration of sclerotic bodies or Medlar bodies in KOH mounts and histopathological examination, culture on Sabourauds agar and by Molecular and Serological methods.

Case Presentation: A 50 year old male patient presented with. multiple plaques over the scalp and on the nape of the neck over the last 1 month, It was associated with itching. He did not give any history of injury but carried wood on his head and shoulders. The condition was diagnosed as Tinea capitis and skin scrapings sent for microscopic examination and fungal culture. Laboratory diagnosis. The diagnosis of Chromoblastomycosis by *Fonsecaea compacta* (*F. compacta*) was made based on the finding of sclerotic bodies in KOH mounts and characteristic growth on SDA. Conclusions:- Chromoblastomycosis presenting as a plaque like lesions should be considered as it may be confused with other superficial dermatic lesions.

Keywords- Chromoblastomycosis, *Fonsecaea compacta*, Sclerotic bodies

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Introduction

Chromoblastomycosis is a chronic fungal infection of the cutaneous and subcutaneous tissue of the exposed portion of the body caused by dematacious fungi. Max Rudolph, a German Physician from Brazil was the first to describe chromoblastomycosis in 1914. The histopathological features of the disease and the pathognomic sclerotic cells were described 1 year later in 1915 by both Lane and Medlar [1,2]. The five principal etiological agents of chromoblastomycosis are *Fonsecaea pedrosoi* (*F. pedrosoi*), *Phialophora verrucosa* (*P. verrucosa*), *Fonsecaea compacta*, *Cladophialophora carrionii* (*C. carrionii*) and *Rhinocladiella aquaspersa*. Virtually all cases of Chromoblastomycosis are caused by *F. pedrosoi*, *C. carrionii* and *P. verrucosa*. Infection with *F. compacta* is rarely reported as the etiologic agent of chromoblastomycosis in humans [3]. Chromoblastomycosis is known to occur in farmers. Injury by wood splinters or thorn prick is responsible for the entry of the organisms inside the body. The disease is common in men than women and is common after 30-50 years. Infection in children and adolescents have also been reported [4,5]. It usually occurs on the lower ex-

remities but can occur on any exposed portion of the body. Rare sites reported are nasal ala, ear, penile shaft, vulva, tracheolaryngeal region, tonsil, ileocaecal region and pleural cavity [6].

Case Report

A 58 year old patient hailing from Satara District was admitted to the hospital for cataract surgery. He complained of lesions on this head and neck over 1 month and also complained of itching in these areas. He did not give any history of injury but carried wood on his shoulders and head. Blood counts, Peripheral blood smear, Liver and kidney function test, chest X-ray were all normal. On examination plaques were seen all over the scalp and neck [Fig-1] and was diagnosed as Tinea capitis. He was given Greiseofulvin and skin scrapings were sent for microbiological diagnosis.

Laboratory diagnosis

Skin scrapings were examined by 10% KOH and by culture on Sabourauds Dextrose agar. KOH mount revealed copper coloured, globe shaped, thick walled structures 4-12um in diameter with septa which were arranged in clusters [Fig-2]. Culture on Sabourauds

revealed black coloured, heaped and folded colonies. The reverse of the slant showed jet black colour. Lactophenol cotton blue mounts showed hyphae which were septate, brown, branched and had predominantly cladosporium type conidiophores with branching chains and masses of almost round conidia [Fig-3]. The conidia were cask shaped with the wide diameter of the septa between conidia and the conidial chains were compactly arranged.

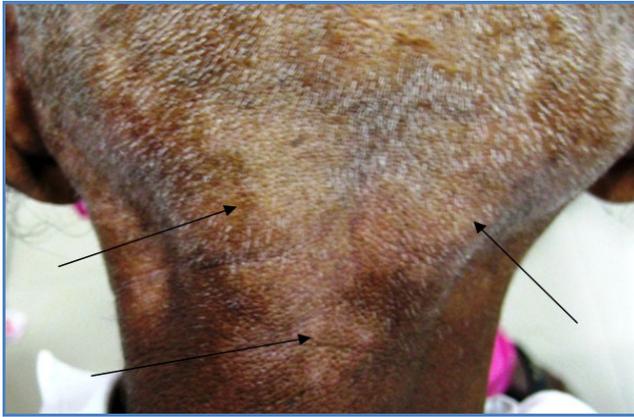


Fig. 1- Plaques on scalp and neck

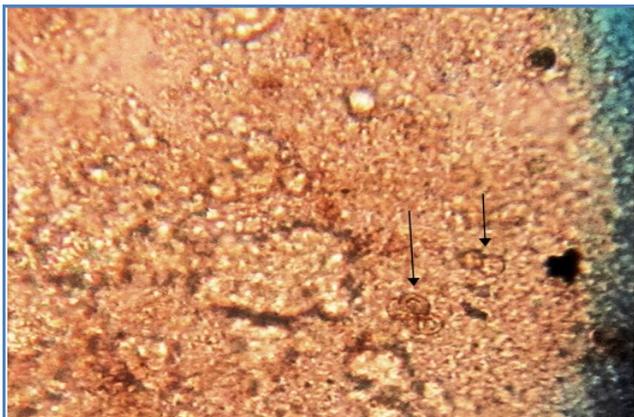


Fig. 2- KOH mount showing Sclerotic bodies

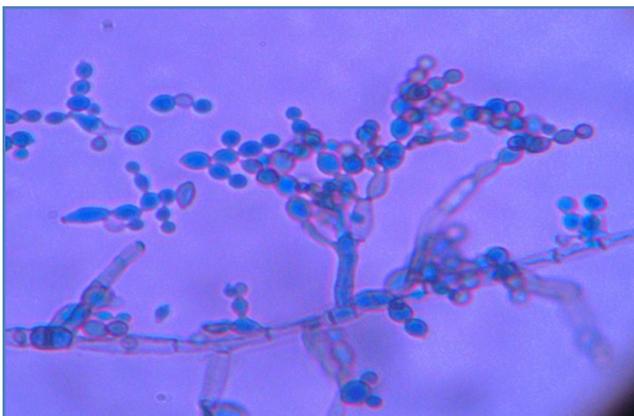


Fig. 3- Septate branched conidiophores with masses of conidia

Discussion

Chromoblastomycosis is distributed worldwide although it is more common in subtropical and tropical countries. Large numbers of cases have been reported from Madagascar in Africa, Brazil and

Japan. Several studies have shown that it is prevalent in several other countries as well like Thailand, Korea, Pakistan [4,7,8]. The five types of lesions described by Carrion in chromoblastomycosis are nodules, tumours, plaques, warty lesions [9]. It is a chronic disease and one of the most difficult mycotic infections to eradicate. It can be confused with various diseases like Cutaneous Tuberculosis, Cutaneous Leishmaniasis, Sporotrichosis, Squamous cell carcinoma etc. A high degree of clinical suspicion and diagnosis by mycological investigations play a pivotal role. Itraconazole and terbinafine are useful for the treatment of this disease. Other modalities of treatment are surgical excision, cryosurgeries with liquid nitrogen for localised lesions. Infection by *F. compacta* is rare worldwide with only 12 cases reported till 1997 [10]. Attapattu, et al in a study from Sri Lanka has reported isolation of 2 cases of *F. compacta* [10]. In India, isolation of *F. compacta* has been reported in only one study by Sharma, et al. from Shimla wherein the isolation rate of *F. compacta* was 15% [6].

Conclusion

Our case is probably the only case of Chromoblastomycosis caused by *F. compacta* to be reported from Maharashtra. A high index of clinical suspicion and mycological investigation help in the diagnosis of such condition.

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