INTRODUCTION

Chromoblastomycosis is a localized chronic mycosis of skin and subcutaneous tissues. It is characterized by verrucoid, ulcerated and crusted lesions which may be nearly flat but may be raised 1 to 3 centimeters. Lesions usually are localized to the lower leg but may occur on other skin surfaces at the site of cutaneous injuries. It is caused by members of the dematiaceous group of fungi consisting of Fonsecaea, Phialophora and Cladosporium. The disease is characterized by the presence in infected tissue of brown, thick-walled, globose, multiseptate fungal forms known as muriform bodies (synonym, sclerotic bodies, Medlar bodies). Chromoblastomycosis has been reported in most regions of the world but is more common in tropical and subtropical regions. The present report deals with chromoblastomycosis in an agricultural worker.

CASE REPORT

A 45 years male patient, farmer by occupation, came with the complaint of irregular warty growths with ulceration and crust formation of the right leg of 35 years duration. The patient gave history of stick injury over the right knee when he was 10 years old. The lesion started initially over the right knee and gradually increased in size and spread to the thigh, leg and foot over a period of several years.

Clinically the patient presented with multiple irregularly shaped wart like lesions and ulcerated areas over the right foot, leg, knee and thigh with crust formation. There was a large single lesion in the upper leg and knee area measuring 15x15 cm and multiple lesions in right foot, sizes varying from 2x2 cm to 5x4 cm. The right foot was oedematous, with scar formation.

Labotary Diagnosis

Skin scrapings and crusts from the lesions was collected and the specimen was processed for fungus by direct microscopic examination after treating with 10% potassium hydroxide and by culture in Sabouraud’s agar medium.

Direct Microscopy: Direct KOH preparation of the specimen revealed the presence of small, round, thick-walled, brownish septate bodies.

Culture: The specimen was inoculated on Sabouraud’s agar slant containing chloramphenicol and incubated at room temperature. Small olivaceous-black colonies appeared after 2 weeks incubation. The colony became heaped up, folded, black and velvety on further incubation. The reverse side of the colony was jet black in colour.

Microscopic examination: Lactophenol cotton blue preparation of the colony revealed brown septate branching hyphae with Fonsecaea type of sporulation. Spores were single celled, broadly clavate and about 1.5-2.5 x 3.5-5um in size. The fungus was identified as Fonsecaea pedrosoi.

Histopathology: A skin biopsy of the affected site was taken and sent for histopathology. Biopsy revealed inflammatory cells and brownish round septate bodies.

Routine investigations showed no significant finding.

X-ray examination of the right leg and foot did not reveal any bone involvement.

DISCUSSION

Chromoblastomycosis have been reported from various parts of India. Case report of chromoblastomycosis from Assam are few. A case has been reported from Assam in 1957 by Kakoti and Dey. Infection follows traumatic implantation of the aetiological agent beneath the epidermis via lesions or other minor wounds, or penetration by foreign bodies such as splinters.
dematiaceous fungi causing the disease live in soil and the disease therefore occurs most frequently in bare footed farm or agricultural workers. The case reported by us was a farmer by occupation who gave history of stick injury over the right knee.

Chromoblastomycosis must be differentiated from blastomycosis, cutaneous tuberculosis, leishmaniasis, malignancy etc. Mycological and histopathological evidence are essential in confirming the diagnosis. Microscopy and culture provide highly sensitive means of diagnosis that are both simple and inexpensive. The most rapid diagnostic technique is the examination of skin scrapings or biopsy specimen by direct KOH preparation for the presence of muriform/sclerotic bodies. Superficial crusts from the lesions may show the septate, dematiaceous hyphae.

Culture is carried out in Sabouraud’s medium with antibiotics at room temperature. The fungi causing chromoblastomycosis are slow growing and produce heaped up and slightly folded, darkly pigmented colonies with a gray to olive to black velvety appearance. The reverse side of the colonies are jet black. On examination of Lactophenol cotton blue mount of the colony the specific etiologic agent can be identified according to spore formation.

Histologic examination of the lesion tissue reveals characteristic sclerotic bodies, copper-colored, septate cells that appear to be dividing.

Despande et al in their study states that eighty percent of the cases reported in the literature were confirmed by histopathology and sixty percent yielded growth of dematiaceous fungi. The majority of isolates were identified as Fonsecaea pedrosoi. Sharma et al reviewed thirty four patients between the age of 12 to 18 years. Onset before the age of 20 years was seen in 24% of cases. Culture was positive in 72% of cases and sclerotic bodies was observed in 84% of cases. In the present study, sclerotic bodies was seen in direct microscopy and isolate on culture was identified as Fonsecaea pedrosoi
which required an incubation period of 2 weeks at room temperature for their growth.

REFERENCES


