

## *Case Report*

### **A RARE CASE OF PRIMARY FOREARM FLEXOR-PRONATOR MUSCLE GROUP CHROMOBLASTOMYCOSIS**

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#### **Abstract**

**Chromoblastomycosis is the infection of cutaneous and subcutaneous tissues. It can disseminate to distant tissues secondarily by hematogenous and lymphatic routes. In our search of the literature, we found only one case that showed involvement of the underlying bone. In this paper, we report an unusual case in which cutaneous chromoblastomycosis involved the flexor-pronator muscle group in the forearm, which presented as a stiff elbow. This case occurred in northeastern India, which is not endemic for this infection.**

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## INTRODUCTION

Chromoblastomycosis is a chronic mycotic infection of cutaneous and subcutaneous tissues. The lesions produced by the infection are nodulo- verrucous in appearance. Extracutaneous spread occurs rarely through hematogenous and lymphatic routes. It can disseminate and involve secondary muscles, bones, and the urogenital system (1). It is often seen in certain geographical areas of the U.S., Canada, Mexico, and Africa. Cutaneous chromoblastomycosis manifests as raised, nodulo- verrucous cutaneous lesions that have an abrupt downward sloping border that extends slowly, leaving a central atrophic scar. Although the disease usually occurs in immunocompetent individuals, infection in HIV-infected people can progress rapidly. The fungal genera that can cause this infection are *Cladophialophora*, *Fonsecaea*, *Phialophora*, and *Rhinocladiella* (1). In this paper, we present a case report of infection by Chromoblastomycosis of the muscles of flexor-pronator group of the forearm. So far, only one case has been found in the literature with dissemination to the underlying bone (3).

## CASE PRESENTATION

A 40-year-old male patient presented to the Outpatient Department of the North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences (NEIGRIHMS) in Shillong, India, with a complaint of raised nodular growths from his elbow to the middle third of his forearm on its volar aspect that had appeared during the past six months. These growths had been exuding watery fluid for the entire period. On

examination, nine nodular growths were found that varied from 5 to 10 mm in size. The nodules were not tender, and they were attached to the underlying flexor-pronator group of muscles. The discharge coming from the nodules was serous in nature. The elbow joint was stiff in 90 degrees of flexion. There was no history of passing of black granules or discharge of white flakes. There was no history of chest complaints, fever, anorexia, loss of weight, seizures, urinary complaints, discharge per urethra, trauma, or thorn prick. Hematological examination revealed that hemoglobin was 8.4 gm/dl, with relative lymphocytosis. The Erythrocyte Sedimentation Rate (ESR) was mildly elevated, and the Mantoux test was negative. The test for HIV was negative, and the rest of the routine blood analyses were within normal limits. The pus smear and culture/sensitivity were normal. Radiographs of the elbow and forearm were normal with no bony lesions. The differential diagnosis of cutaneous tuberculosis, fungal infection, or chronic pyogenic infection was made. Biopsy of one of the nodules revealed features of chronic inflammation that was inconclusive for the specific diagnosis. Therefore, excision of sinuses and nodules with fibrous tissue was planned. Perioperatively, the nodular growths were found to involve the underlying flexor-pronator muscle group extensively. The tissue and the affected muscle areas were sent for histopathological analysis, which revealed Chromoblastomycosis. The patient was subsequently treated with 150 mg of Fluconazole per week for three months (2). The wound healed well postoperatively. The patient was followed up with physiotherapy. The patient showed good recovery of range of flexion in the arc of 30 to 120 degrees. He was able to carry out the normal activities of

daily living (ADL) after three months of follow-up.

## DISCUSSION

Chromoblastomycosis is generally an infection of cutaneous and subcutaneous tissue. There has been only one case reported in the literature in which chromoblastomycosis was associated with primary osteolytic lesions in the bone (3). In this paper, we have reported a case of Chromoblastomycosis in the forearm with primary involvement of the flexor-pronator muscles of the forearm. There are no serological tests available for diagnosing Chromoblastomycosis. The diagnosis depends on finding the pathogenic fungus in clinical specimens, such as sputum or the excised tissues as a thick-walled cell with a diameter of 5-20 micrometers that may have a single, broad-based bud with the presence of dusky muriform cells. The muriform cells represent an intermediate vegetative fungal form arrested between yeast and hyphal development. The dusky color of these muriform cells results from melanin pigment. So, we conclude that, in a case presenting with chronic, multiple, deep-seated discharging sinuses in the limb with restriction of joint movements, a differential diagnosis of Chromoblastomycosis should be kept in mind.

## CONCLUSION

The diagnosis of Chromoblastomycosis should be strongly considered by the clinician in patients presenting with chronic, verrucous-nodular, discharging lesions adhered to the underlying muscles in the forearm with stiffness of the elbow and with normal roentgenographs.

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