CHROMOBLASTOMYCOSIS IN INDIA

By

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Chromoblastomycosis is a rare deep mycotic infection in any part of the world where it is seen. Although it was considered non-existent in Asia, a few cases have been reported from India and Far East [1-10]. The first case from India was reported in 1957 by Thomas et. al who diagnosed it histologically from a skin biopsy specimen sent from Assam, a North Eastern State in India.

This paper presents two additional cases of Chromoblastomycosis seen in the Department of Dermatology of Christian Medical College and Hospital, Vellore.

Case-1. was first seen in our clinic in 1967. He was a 42 year old male patient who worked for several years as a cook in a house in Vellore town. In 1962 his right 2nd toe was stamped by a cow grazing in the backyard of the house. A small ulcer developed at the site of injury and healed within a few days leaving a superficial scar. There was no history of further trauma to that toe.

Six months later, a red scaly area was noticed in the scar of the injury. This gradually spread to involve skin of the dorsum of the toe. Superficial scaling was noticed over the lesions on and off. Except for occasional itching the lesion was asymptomatic.

On examination the lesion involved the dorsal aspect of the right second toe. Proximally it stopped short of the root of the toe by about 1/2". Distally it extended upto the tip of the toe (fig. 1). The lesion was an erythematous infiltrated scaly plaque, slightly raised from the surrounding skin. There was no significant regional lymphadenopathy. General systemic examination revealed no abnormality.

Clinical diagnosis of tuberculosis of the skin was made. Routine investigations were done.

Haemoglobin 11. 1Gm%. W. B. C. (Total 23, 100/ cmm. (Differentiate) Ploys. 10%, Eos, 65% Baso. 1% Lymph. 13% Mono. 1% Absolute Eosionphil count 5, 937/ cmm. E. S. R. – Ist hour – 28 mm. P. P. D. – Strongly Positive. Stools Positive for hook worm ova, Chest x –ray – Normal.

Skin Biopsy–Histology showed skin with marked hyperkaratosisand pseudo-epitheliomatous hyperplasia. Dermis contained a polymorphous granulation tissue with many Langhans giant cell and small abscesses. The abscesses were composed of neutrophils, lymphocytes, plasma cells and eosinophils. In some areas tuber-

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culoid formations were present (fig. 2). Within the giant cells and outside these were found oval dark brown thick walled septate spores (fig. 3). Spores were also seen in the parakeratotic crust on the surface of the lesion (fig 4).

Direct Examination: In view of the above histological finding, scale from the periphery of the lesion was examined under KOH. This revealed spores of Chromoblastomycosis (fig. 5). On P. A S. stain of the material, filaments and spores of chromoblastomycosis were detected (fig. 6).

Culture of the tissue in Sabourad's glucose agar medium grew Hormodendrum compactum (fig. 7).

Patient was seen in the clinic for about 3 months at monthly intervals. During this time he was given a course of hetrazan for the eosinophilia. After 3 months he stopped attending clinic.

20 months after the initial visit, patient was contacted again. Skin lesion at this time had progressed and extended to the root proximally Patient's only complaint other than a slight progession of the lesion was a transient edema of the right foot noticed in the preceeding three months. Edema used to subside with rest.

Patient was then referred to the surgeon for amputation of the toe.

Case 2. Was initially seen in 1968. She was a 31 year old housewife who complained of skin lesion on the face and severe right headache. The skin lesion started 5 years prior to her hospital visit, when a small flesh coloured papule appeared on the right cheek. This progressed to involve most of the right side of the face, bridge of nose and left cheek. It was asymptomatic initially As the lesion spread, it became painful and itchy. About 3 years after the appearance of the skin lesion, patient started to get severe right sided headache and pain in the ipsilateral eye. There was no history of local trauma preceeding the appearance of the skin le ion. Patient was 4 months pregnant.

Physical examination revealed a young female in great distress due to her severe headache. A large well defined skin lesion covered most of the right side of the face and extended on to the left cheek across the bridge of the nose. Centre of the lesion was hypopigmented and atrophic. The periphery was raised infiltrated, circinate and scaly. In some areas the periphery was flesh coloured and in others erythematous or hyperpigmented (fig. 8). There was no regional lymphadenopathy.

Uterus was palpable midway between symphysis pubis and umbilicus. Systemic Examination did not reveal any abnormality. Central nervous system clinically normal.

Routine laboratory investigations were within normal limits. X-ray skull was normal.

Biopsy of the skin lesion showed epithelium with mild hyperkeratosis. Superficial dermis showed collections of epitheloid cells and giant cells. In the giant cells were seen septate brown spores in clusters.

Culture from the face lesion revealed fungii resembling cladosporium species.

Patient was sent home and advised to return after delivery of the child. She did not come back and several attempts to contact her were fruitless.

DISCUSSION

Reports of Chromoblastomycosis from India are rare. To-date ten cases have been reported, three of which were from South India.

Both the patients presented in this paper belong to Tamil Nadu. They were seen in the clinic within a period of six months. Both cases were clinically diagnosed as skin tuberculosis, but showed the typical fungal spores in the histological section. Direct KOH examination and culture further confirmed the diagnosis.

In the first case there was a definite history of trauma to the toe prior to the appearance of the skin lesion. The second patient, a house wife who often helped her husband on the farm-land, could have sustained a trivial injury on the face, although she could not remember such a trauma.

The first patient showed marked blood and tissue eosinophilia. Hook worm infection detected by stools examination was adeqately treated. In spite of repeated negative report for parasites in the stools after that, the high eosinophil count in the peripheral blood persisted. During his admission for surgery about 20 months after treatment for eosinophilia, there were 81% eosinophils in peripheral blood. One case reported from Mysore and another from Taiwan had 11% and 14% eosinophils respectively in the blood smear. The latter was a case of disseminate chromoblastomycosis and exhibited increased eosinophils in the granuloma from a lymphatic gland. Apart from these two cases, we are not aware of any other reports where significant Eosinophilia was present.

The Eosinophilia in this patient may be unrelated to his Chromoblastomycosis. It will be an interesting follow up to see if eosinophilia decreases after treatment for the granuloma.

Although we were able to advise surgical treatment on the first case, it was impossible to consider such a line of treatment in the latter. If the nature of the lesion was detected earlier, when the disease was localised, it might have been possible to treat it surgically.

The need for an early correct diagnosis in these cases cannot be over emphasized. Since diagnosis is possible on a histological basis, it is well to point out that all cases of suspected tuberculosis of skin or unusual granulomatous lesions be biopsied and studied so that in diseases where medical treatment is still very unsatisfactory, surgical measures may be able to eradicate them.

Of the deep mycotic infections encountered in our clinic, Madurai Mycosis is the commonest. Mechanism of entry of organisms causing Madura foot and Chromoblastomycosis is the same Yet, the latter infection is extremely rare. The last time Chromoblastomycosis was reported from this Institution, was in 1957, being also the first case detected in India. Since it is routine practice in our clinic to biopsy all granulomatous lesions on the skin, it is unlikely that any chromoblastomycosis has been missed in the past. We, therefore believe that although Chromoblastomycosis is seen in India, it is still a rare mycotic infection.

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