LUMPY MYCETOMA
(Subcutaneous Phycomycosis)

K. RADHAKRISHNAMURTHY

Summary

A case of "Lumpy Mycetoma" (Subcutaneous Phycomycosis) proved clinically and histopathologically and occurring on the scalp is herewith presented because of rarity in site of involvement and incidence. Advantage of using the term "Lumpy Mycetoma" is discussed.

Subcutaneous phycomycosis is characterised by indurated masses (looking like abscesses initially) spreading in the subcutaneous tissues producing extensive lumps. This is caused by ubiquitous fungii belonging to the species Basidiobolus. Unlike other mycoses which present a bewildering variety of clinical forms, these fungi produce only the monomorphic appearance of a lump which provides an important clue to the diagnosis.

During the 23 years that have elapsed since the first report of subcutaneous phycomycosis by Joe et al[1] in 1956 there appears to be only few case reports from India namely those by Mukerji et al[2] in 1962, Klokke et al[3] in 1966, Greuber[4] in 1966, Grace Koshi et al[5] in 1972, Kamalam & Thambiah[6] in 1975 and Radhakrishnamoorthy[7]. Another case report is presented here for some of its peculiar features.

Case Report

In January 1978, a four year old boy (resident of Huzurabad, Karimnagar district, Andhra Pradesh) developed a small painless swelling near the occipital region. His parents could not recall any history of injury or of insect sting. The swelling slowly extended to involve the anterior parts of scalp and spread on (fig. 1) to the forehead and left eye-lid by June 1978. The margins of the swelling were fairly sharp; surface was smooth and glistening and

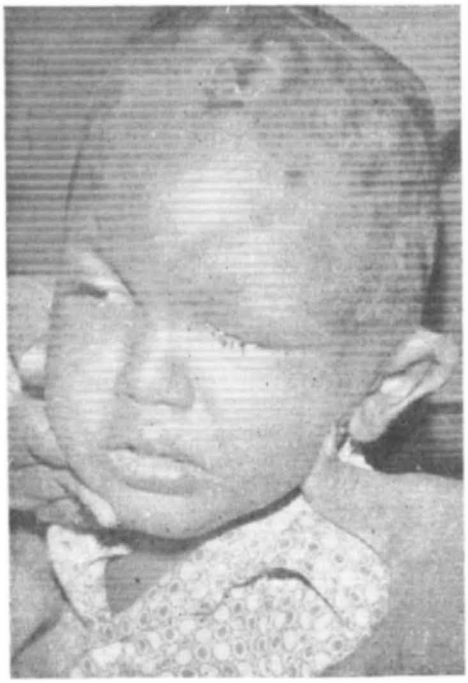

Fig. 1 Picture showing involvement of the scalp and eye lid by the mycetoma.

Lecturer in Venereology
Kakatiya Medical College &
Venereologist, M G M. Hospital
Warangal
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consistency was jelly-like. There was no tenderness and no sinus formation. Cervical lymph nodes were enlarged on both sides. Patient was afebrile all along. He had been treated at various places with no improvement.

Investigations

X-ray scalp, blood & urine findings were normal. Scrapings were negative for fungus. Culture could not be done. Histopathology showed fungal hyphae surrounded by eosinophilic precipitate (fig. 2) amidst giant cells. No treatment could be initiated because the child absconded.

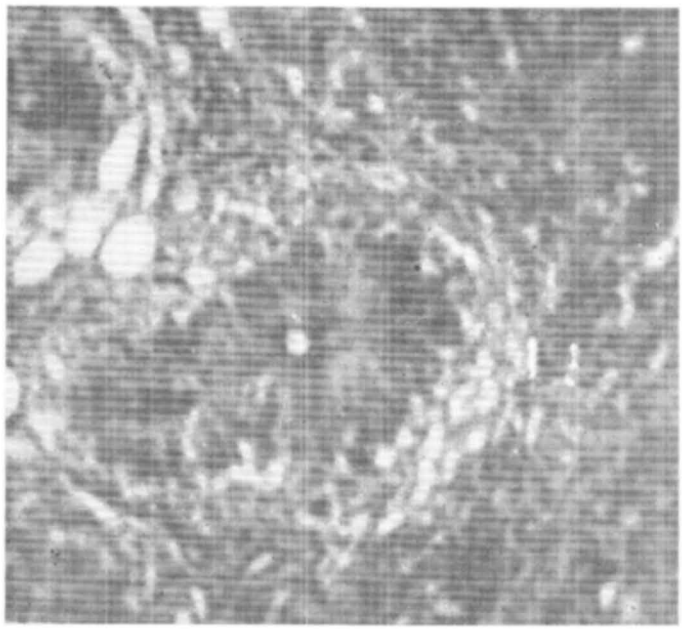

Fig. 2 Microphotograph of tissue showing fungal hyphae (cross section surrounded by eosinophilic material and giant cells) (H & E x 50)

Discussion

This case was variously diagnosed as lymphocytoma cutis, fibrosarcoma, rare neurological and highly vascular tumour etc. at different places. The clinical picture was however characteristic of this disease to an experienced eye[7]. The diagnosis was confirmed histologically by the typical appearance of fungal hyphae surrounded by an eosinophilic mantle. It is to be recalled that all the species of Basidiobolus which cause this disease produce identical histopathological picture, a situation analogous to chromomycosis where heterogenous group of organisms produce the same type of dematiaceous septate sclerotic bodies in tissues within giant cells. Thus these two diseases admit of histopathologic diagnosis even in the absence of cultural evidence. Evidence of the disease in lymph gland[6] and presence of spherule in the subcutaneous tissue[7] with intact overlying skin, have both been reported in literature.

It looks as though the condition is not uncommon in Andhra Pradesh. Out of a total of 8 cases, 5 were from Karimnagar district alone.

Even though the swelling presented with a red surface it had no tenderness and was soft. Margins could not be lifted up as in other cases[7]. In the cases[7] studied so far, neck, pectoral region, shoulder, arms, forearms, hands, trunk, buttocks, perineum, thighs, knees and legs were the areas affected. Involvement of the scalp as in the present case seems to be rare.

The mode of entry of the fungus is not clearly established in this disease. All the cases earlier studied[7] showed enlargement of lymph glands which points to cutaneous portal of entry of

the fungus either by thorn prick or insect sting. Entry by thorn prick does not appear to be common since sites prone to such injury are not predominantly affected. It is possible that insect sting may be more often responsible for introduction of the etiological agent since many insects and insectivorous animals are known to harbour the pathogen.

Though there are extensive reports of this disease from African countries, cases reported from India are few and far between. Either the incidence is low or many cases go undiagnosed, due to unawareness of the condition. A high index of clinical suspicion is necessary for clinical diagnosis. The monomorphic form (Lump) exhibited by this mycetoma should be strikingly emphasised even at the undergraduate level by calling it "Lumpy Mycetoma". Thus one group of mycetomas consists of actinomycosis, nocardiosis and Madura-mycosis producing swellings and sinuses and a second group of mycetomas consists of lumpy mycetomas characterised by extensive swellings without sinuses. Thus widening of the spectrum of mycetomas may go a long way in awakening awareness of this entity among medical practitioners.

Acknowledgments

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