SELF - ASSESSMENT PROGRAMME

A 24 year old mason from U. P. presented with a 4 years history of multiple sinuses on the abdominal wall. The disease had started as a single peri umbilical nodule which broke down to discharge seropurulent material. Multiple similar lesions appeared all over the abdominal wall over the next four years. The lesions were painful and did not result in constitutional symptoms. No history of any grains having been discharged was forthcoming. Patient had been treated with antibiotics without much relief. There was no history of preceding injury or gastrointestinal or respiratory complaints.

Examination revealed a thin emaciated young man with multiple indurated nodules and seropurulent discharging sinuses all over the anterior abdominal wall almost extending upto the chest. Systemic examination was normal.

(A) Which of the following diagnosis is most likely ?

1. Actinomycosis
2. Mycetoma
3. Tuberculosis (scrofuloderma)
4. Sporotrichosis
5. Chromomycosis

(B) Which of the following investigations is most likely to be helpful ?

1. Skin biopsy for histology & cultural examination
2. Microscopic and cultural examination of the discharge for AFB or fungi
3. X-ray of the chest
4. Barium meal study

Skin biopsy showed a granulomatous infitrate with evidence of acute inflammation and presence of plenty of eosinophils and neutrophils. Examination for fungi and AFB were negative. X-ray of the chest and barium meal study were also normal.

(C) Which of the following forms of therapy is most likely to help ?

1. Dapsone
2. Antitubercular treatment
3. Potassium iodide
4. Amphotericin-B

The patient was started on 200 mg of Dapsone per day and in the course of about 6 months, the lesions almost completely cleared up. The therapy was continued without any significant adverse effects.

(D) How long should the treatment be continued now?

1. 1-2 years
2. 2-5 years
3. Life time

(E) What are the possible serious side effects that should be looked for ?

1. Methaemoglobinemia
2. Hepatotoxicity
3. Psychosis
4. Anaemia
5. Exfoliative dermatitis

(F) What is the likely prognosis of this patient ?

1. Relapses and remissions
2. Control under drug therapy
3. Cure
4. Ultimately fatal

ANSWERS

A. The most likely clinical diagnosis in this patient would seem to be mycetoma. Both actinomycosis and scrofuloderma should have underlying pathology such as involvement of the gut, the lymphnodes or the bones. There was no evidence of such involvement. Chromomycosis does not result in sinus formation ; instead causes warty tumorous lesions. Sporotrichosis is a possible diagnosis but for the fact that it is not common in North Western part of India and abdomen is not a common site of involvement.

B. Both skin biopsy and detection of causative organisms either by histological examination of the tissue or discharge and culture should be attempted. X-ray examination of the chest or barium meal study would be of secondary importance, only to detect the primary focus of infection such as for tuberculosis or actinomycosis. The presence of granulomatous infiltrate with acute inflammation particularly the presence of eosinophils would disfavour a diagnosis of tuberculosis and would point towards fungal infection being a more likely possibility. A definitive diagnosis would have been possible if the causative organism had been isolated.

C. On the presumptive diagnosis of mycetoma, dapsone therapy was instituted which resulted in good response. Potassium iodide, though almost specific for sporotrichosis is not particularly

useful in mycetomas. Amphotericin B would have been instituted if the causative agent had been identified as a true fungus (eumycetes). Mycetomas due to schizomycetes (Nocardia, streptomyces) respond fairly effectively to ordinary chemotherapy.

D. About two years of therapy in an average patient is adequate.

E. Dapsone is very well tolerated in relatively small dosages employed in the treatment of leprosy. In mycetoma and dermatitis herpetiformis side effects are more frequently seen of which the commonest perhaps are anemia and methaemoglobinemia. Hepatotoxicity, psychosis and exfoliative dermatitis though serious, are relatively uncommon.

F. The patient is likely to be cured if adequate therapy had been given.

Comment

Mycetomas are one of the commonest subcutaneous mycotic infections in this part of the world. Originally described as "Madura foot" from Madurai[1] it has increasingly been seen that other parts of the body can also be affected[2,3]. The causative organisms may belong to schizomycetes (ex Nocardiae sp. Streptomyces) or eumycetes (ex Madurella sp. Allescheria) and identification of these species is important since schizomycetes respond very well to ordinary chemotherapeutic agents such as sulphonamides and sulphones or antibiotics such as tetracyclines. Eumycotic mycetoma respond relatively poorly to chemotherapy except perhaps to antifungal antibiotics such as amphotericin B". The treatment with dapsone has been reported to be fairly effective and safe though not all patients would respond to any single form of therapy. A careful watch should be kept for side effects since relatively large doses are being employed. Relapses are uncommon unless the treatment has been stopped prematurely.

1. Carter HV : On Mycetoma or Fungus disease in India, J & A Churchill Publishers, London, 1874
2. Kandhari KC, Bhutani LK, Girgla HS et al : Actinomycotic mycetoma, Arch Dermatol, 104 : 685, 1971.
3. Kamalam A and Thambaiah AS : A study of 3891 cases of mycoses in the tropics, Sabouradia, 14 : 129, 1976.

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WHAT IS YOUR DIAGNOSIS?

A forty year old male patient complained of scaly lesions over the elbows, hands, knees and feet since the age of 2 years. He was born to consanguinous parents. There was no family

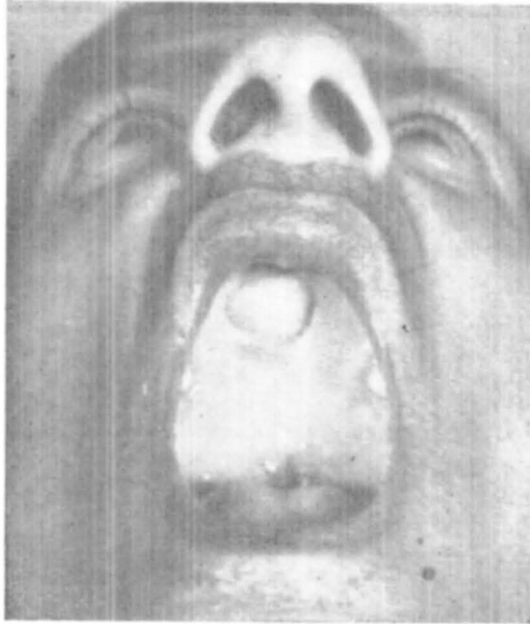

Fig. 1

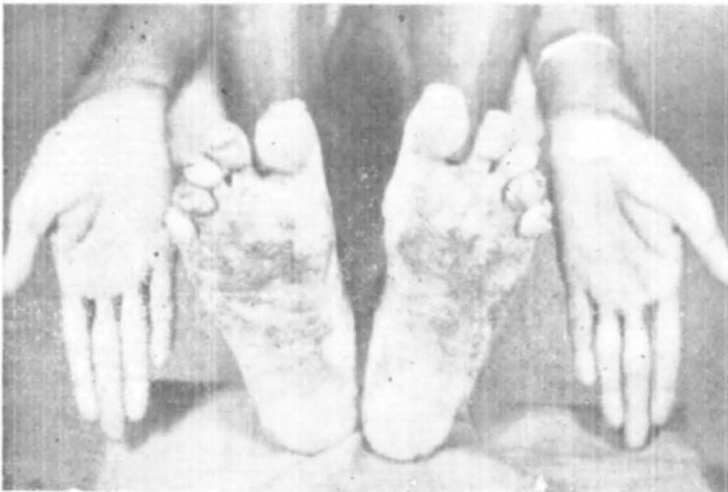

Fig. 2