Case Report

Madura Foot

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Summary:

A case of madura foot in a 55 years old male is being reported because of its rarity. Its classification, aetiopathology and treatment have been discussed.

Key words: Madura foot, Mycetoma.

Introduction:

Mycetomas are granulomatous mycotic lesions enclosing fungus grains of various shapes. The grains a formed by felted mycelium and they are discharged through more or less extensive fistulae. They gain access in the human body through injuries, as a rule, foot being particularly Vulnerable.

Because of the high incidence of this disease in Madura in Tamilnadu state, the disease has been named as such.

The condition has been known in India since ancient times, mentioned in Ayurveda as "Padavalnikam".

Mycetoma is a disease of the exposed parts of the body, specially the feet, although subcutaneous tissues of other parts of the body may become infected. Most of the patients give history of walking bare foot,

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A typical mycetoma is characterised by swelling and gradual disintegration of the subcutaneous tissue, and formation of sinuses which open on the skin surface. These mycetoma are characterised by grains, formed by voluminous septate, mycelial filaments, possessing definite cross walls and forming chlamydospores.

Case report:

Mr. B. H., a 55 years old Hindu male was admitted in the surgical ward of Bhagalpur Medical College Hospital with complaints of hugely swollen left foot with mutliple discharging sinuses. Patient was a labourer in some factory. He gave history of nail prick two years back in which he sustained a deep cut lacerated wound in his foot. Subsequently he developed swelling in that foot and then nodules were formed. Some of the nodules burst and left behind discharging sinuses. He had no pain.

On examination- the left foot was found to be grossly swollen and hard. There was flattenning of instep. There were multiple nodules on the foot. Some of them were firm and solid, but majority of them had undergone necrosis. There were multiple sinuses through which seropurulent fluid,containing yellowish grains was discharging(Fig.1 and 2).The lateral popliteal nerve was not thickened. The left inguinal glands were enlarged. The spleen was palpable. The liver was not enlarged.

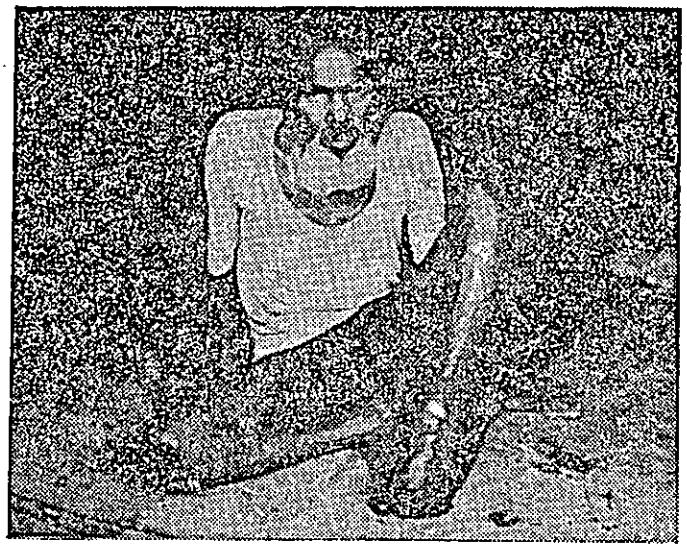

fig. 1

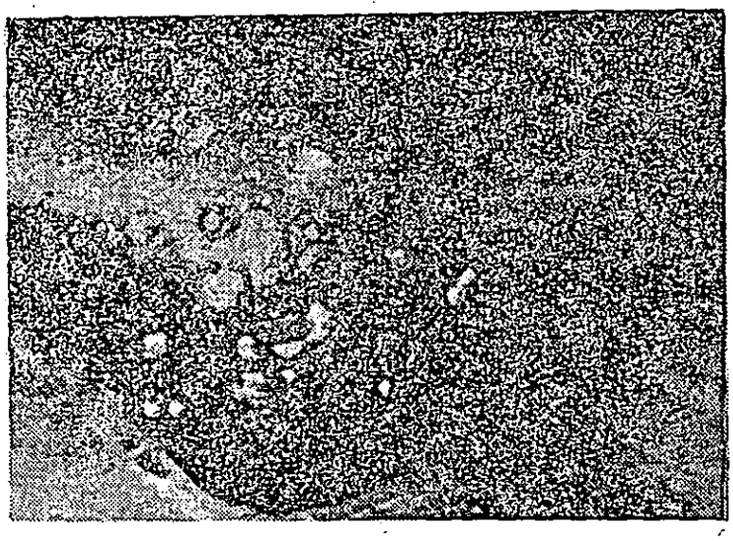

fig. 2

Routine haematological investigation were done and urine was also examined. Thes were within normal limits. X'ray foot showed necrosis of the bone.

Hence an amputation of the foot was decided due to the massive destruction of the bones and joints which was carried out by the classical method.

On the 10th. day the stitches were removed. Wound was healthy. The patient gained body weight.

Discussion:

Mycetoma Pedis is a rare disease mostly encountered in the tropical countries.Burns et al (1945) summerised the 38 cases recorded as occuring in U. S. A. and Canada by 1945.
Cases may be classified into three groups:

1) Those with changes confined to superficial structures in the form of granulomatous lesions of skin or of the skin and subcutaneous tissues.
2) Those with one or more fibrous, fatty or occasionaly cystic nodules without ulceration of the skin.
3) The commonest variety in which lesions are present as multiple subcutaneous nodules which are movable, painless and not tender.

It is the third variety which we encountered, and in this variety the lesion progress to

form sinus and start discharging various types of grains-blackish, whitish or yellowish or reddish-depending on the particular parasite present, the white or yellow variety predominating. Maduromycosis have been classed according to the blackish, whitish or reddish colour of the fungus-grains of the same colour which may be produced by more than one parasites. There are identified species of Nocardia, Aspergillus, Madurella Penicillium, Indiella, Cephalosporium, Monosporium and glenospora- as causative organism.

The aetiological classification of Maduromycoses is as follows:

(A) Black grain Type:

1) Aleurosporia –

(a) Glenospora semoni
(b) Glenospora khartoumensis
(c) Glenospora gaurmeti
(d) Seedosporium scleriotale

2) Phialides –

(a) Aspergillus bourffardi
(b) Aspergillus mycetomi
(c) Aspergillus chivalieri
(d) Penicillium mycetomagmum

3) Torulae phycomycetes–

(a) T. jeanselmi
(b) Mucor mycetomi

4) Hyphomycetes –

(a) Madurella americana
(b) Madurella bovoi
(c) Madurella myotomi
(d) Madurella oswaldoi
(e) Madurella tamivoi
(f) Madurella rifoma
(g) Madurella taborkae
(h) Madurella tozeuri

(B) **White or Yellowsih grain Type:**

1) Aleurosporia –

(a) Seedosporium ap ospermum

(b) Indiella mansoni

(c) Indiella reymeri

(d) Indiella brumpti

2) Sporophores –

(a) Cephalosporium recifel

(b) Cephalosporium granulomatis

(c) Acremonium potroni

(d) Acromonium lutzi

3) Plectascales –

(a) Sterigmatocytis nidulous

(b) Allescheria boydi

(C) **Greenish Yellow grain Type:**

Aspergillus amstelodami

(D) **Red grain Type :**

(a) Aspergillus

(b) Rubromadurelle Zangeroni

In the black variety of Madura foot, spread is in subcutaneous plane. While in yellow and red varieties, the infection burrows deeply and bone necrosis occurs. It was the latter variety which we have encountered and reported here.

In the black variety, in earlier stages-cure has been reported by Penicillin therapy. Temporary improvement may follow Roentgen therapy. Secondary infection may cause death But the best method is to give a trial with antibiotics to deal with secondary infection and a prolonged course of Dapsone 100 mg twice daily. Improvement have been reported by following the above regimen.

But in case where bone necrosis has occured, it is a must to do amputation to prevent less of life.

In this above mentioned case there was necrosis of all the tarsal bones and base of the metatarsals with destruction of the joints hence amputation was carried out.

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