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MYCETOMA REVISITED

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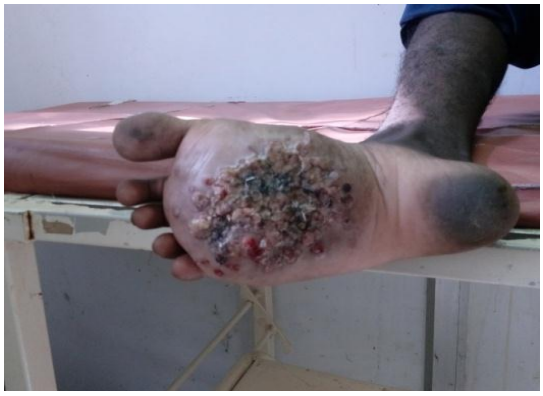
ABSTRACT
Since the modern use of foot wear was introduce the incidence of Mycetoma was reduced. Mycetoma a chronic disease, endemic in tropical and subtropical countries. First described in the mid-1800s in the region of Madurai in India[1], initially named Madura foot. It is caused by true fungi or a filamentous bacteria. We here report a rare case of eumycetoma on the foot of a patient for a duration of 2 years, who presented to our surgical opd which is a rare scenario in the recent times.

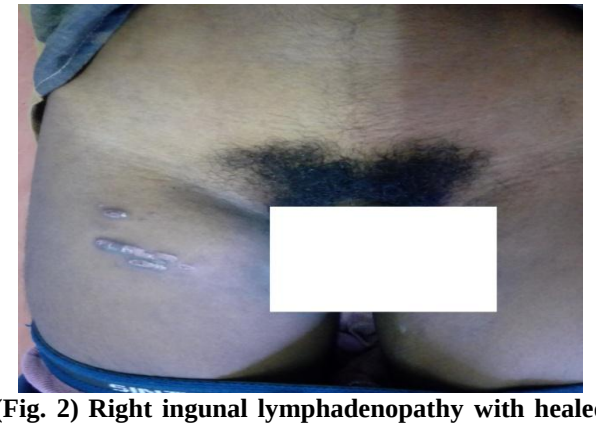
KEYWORDS: Mycetoma, Eumycetoma, Actinomycetoma, Itraconazole.

CASE PRESENTATION

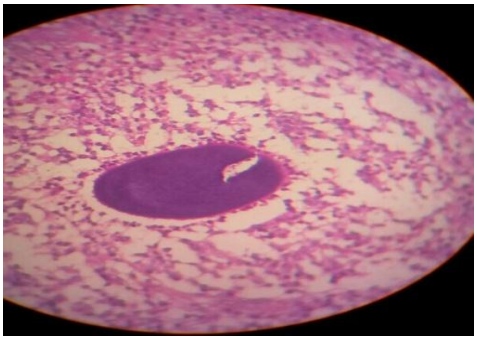
An 18years old male a resident of mathuranthagam from an agriculture based family, presented to the General surgery opd, with c/o a painless swelling in his right foot with difficulty in walking. The swelling started after a trivial penetrating injury on the sole of his right foot, possibly due to walking bare footed 2 years ago. It was seen occupying the plantar aspect of the fore foot of size12x10.cms(fig.1). He was initially treated at three different centers diagnosed as actinomycetoma and treated with dapsone and cotimoxazole on a long course. The lesion did not resolve and he then developed multiple granulomatous lesions with multiple sinuses discharging purulent material and occasional black granules, following which he developed painless matted lymph nodes involving the vertical right inguinal group with a history of purulent discharge from sinuses, how so ever the right inguinal region had scars of healed sinuses during prensentation (fig.2). He was ruled out for TB. A wedge and incisional biopsy was performed on both the right foot lesion and right inguinal nodes respectively, the specimen were analysed both Gram stain and AFB were negative. A histological analyses with special stains such as periodic acid Schiff [PAS] - identified positive for fungal colonies (fig.3). The x-ray of the right foot showed no bone involvement. Hence the treatment was conservative with Itraconazole 200mg BD and the pt was on regular weekly follow up and liver function was monitored once in to weeks. After one month there was a 25% resolution of the lesion(fig.4) and at the end of three months of the course he showed significant improvement with decrease in the size of the lesion (fig.5). And was happy to walk once again.



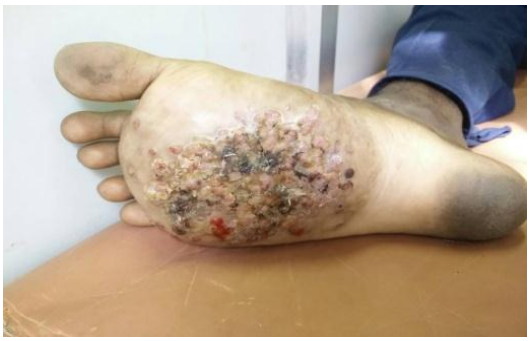
(Fig. 1) Mycetoma right foot.



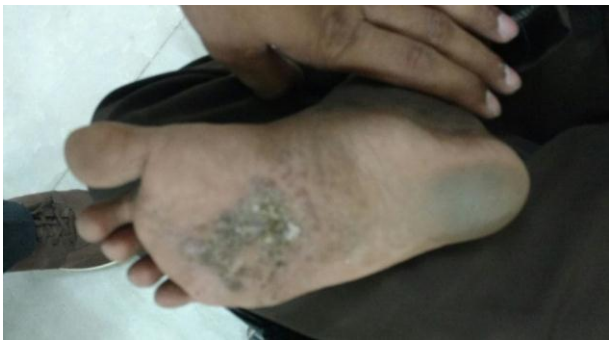
(Fig. 2) Right ingunal lymphadenopathy with healed sinuses.



(Fig. 3) Eumycetoma presenting with PAS+Ve.



(Fig. 4) Reduced swelling and discharge at 1 month of Itraconazol.



(Fig. 5) Appreciable resolution at 3 month of Itraconazole course.

DISCUSSION

Mycetoma is a chronic, granulomatous, progressive and destructive inflammatory disease, which involves subcutaneous tissues spreading up to the skin and deeper structures. mycetoma is seen in tropical countries. presents in people who walk barefoot in dry, dusty conditions as was our case. minor trauma causes the pathogens to enter the skin from the soil.[2] It is caused by true fungi (eumycetoma) or by filamentous bacteria (actinomycetoma). Since the treatment of these two etiologies are entirely different, a definite diagnosis after a histopathological and microbiological examination is mandatory. A Triad of painless subcutaneous mass, multiple sinuses and Sero -purulent discharge is present. Foot or lower leg is most commonly affected, hand is the next most common location; however, mycetoma lesions can occur anywhere on the body. Mycetoma should be distinguished from Kaposi's sarcoma, malignant melanoma, fibroma and foreign body (thorn) granuloma, tuberculosis. Local spread occurs predominantly along tissue planes. The organism multiplies & spreads along the fascial planes to skin and underlying structures. Spreads through lymphatics to the regional lymph nodes. During the active phase these lymphatic satellites may suppurate and discharge. Lymphatic spread is more common in actinomycetoma, lymphadenopathy may also be due to secondary bacterial infection. Spread by blood stream can occur. The differentiation of mycetoma into eumycetoma and actinomycetoma is important as the latter is more amenable to medical treatment than is eumycetoma. The smears from eumycetoma lesions have a distinct cytological appearance, characterised by (brown to black) colonies of branching, septate (distinct) hyphae embedded in a matrix which stain positively with PAS or Gomori's methenamine silver stains, both demonstrating large sized hyphae of eumycetoma.[3,4]

CONCLUSION

Due to its slow and relatively pain free progression of the disease, the mycetoma is often brought to a clinicians notice at an advanced stage. Prognostically, actinomycetoma can be cured with surgical debridement and appropriate antibiotic therapy while eumycetoma is only partially responsive to antifungal agents and has high rate of recurrence and may require amputation in cases with bone involvement. A high incidence of secondary bacterial infection in mycetoma lesions has also been reported, which can cause increased pain and disability as well as septicemia which may lead to be fatal if untreated. This emphasizes the need for its correct diagnosis after meticulous clinical examination, assisted by histological and microbiological studies with the use of special stains. The affected limb could be salvaged and the cure rate is appreciable with a long course of antifungal therapy and follow up.

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