

CASE REPORT



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Rare case of Eumycotic mycetoma of foot caused by *Bipolaris* sp.

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Abstract

A 60-year-old male patient from rural background near Chitradurga, Karnataka presented to the outpatient department of Dermatology with 2 years history of left plantar swelling. Patient informed that, the swelling slowly increased in size over 2 years, it was painless and not restricted him much from his work as a farmer until the lesion grew more and started to give him troubles. Microbiological testing revealed the presence of fungus *Bipolaris* sp., which is rarely known to cause Mycetoma. So this case of Eumycotic Mycetoma was successfully treated with Itraconazole for 6 months and swelling reduced significantly with added ability to walk well that helped him to continue his work.

Keywords: Mycetoma; Granules; Itraconazole

Introduction

Mycetoma is a localized chronic, suppurative, and deforming granulomatous infection seen in tropical and subtropical areas. It is a disorder of subcutaneous tissue, skin and bones, mainly of feet, characterized by a triad of localized swelling, underlying sinus tracts, and production of grains or granules which are the micro colonies of causative organisms⁽¹⁾. The etiologic agents range from bacteria to fungi. Specific therapy depends on the identification of the causative agent.

Case report

To identify the causative agent of clinically diagnosed case of mycetoma of left foot of a 60-year-old male patient who

is a farmer with history of swelling and discharging sinuses gradually increasing since 2 years. He has shown too many local doctors with no improvement and swelling has been interfering in day to day work.

Single well-defined localized hyper pigmented hard swollen lesion of size 5cmx6cm present with 5 to 6 discharging sinuses. Sinuses are of size around 1x1cm distributed discretely over the swelling, discharging serosanguinous fluid without any foul smelling. Granules were collected after saline wash and sent to Microbiology lab for KOH mount, Gram stain, modified acid fast stain and culture (fungal and bacterial). Granules after washing with normal saline were inoculated into both SDA with and without antibiotics,

without actidione for both (for fungal and actinomyces culture) and incubated at 25 degree Celsius and 37 degree Celsius. Granules were also inoculated into blood agar and MacConkey agar for bacterial culture at 37 degree Celsius.

Routine investigations including complete blood count and X-ray of the affected foot showed no significant abnormalities. Granules were black in color. KOH mount showed black pigmented septate hyphae. On SDA agar with chloramphenicol, the colonies were moderately fast growing, effuse, surface is at first grayish brown, becoming black with a matted center and raised grayish periphery with a black reverse. LPCB mount of colonies showed dark macroconidia with three to five cells and septate dematiaceous hyphae; conidiphores are geniculate and twisted from producing conidia, typically resembling *Bipolaris* sp.

Other fungi resembling *Bipolaris* such as *Drechslera* and *Exserohilum* were excluded based on the differences⁽²⁾. Bacterial culture yielded no growth.

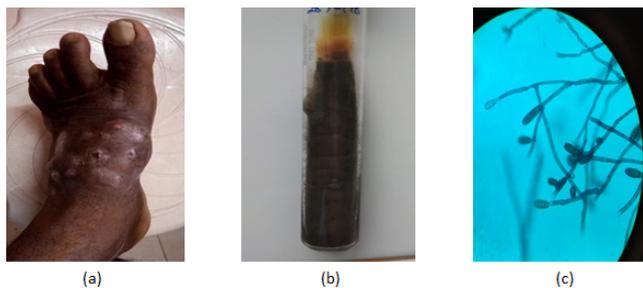


Fig 1. (a) Patient's foot showing mycetoma, (b) Fungal culture on SDA agar and (c) Microscopic morphology in lactophenol cotton blue mount

Discussion & Conclusion

There are various etiological agents of eumycetoma, commoner ones are *M. mycetomatis*, *M. grisea*, *Acremonium* spp, etc. *Bipolaris* spp. causing mycetoma is very rare, and only a few cases have been reported⁽³⁾. Recently, the phylogenetic analysis of the genera *Bipolaris* and *Curvularia* has resulted in a re-alignment of several species. In particular, clinical isolates previously identified some *Bipolaris* species, have now been transferred to *Curvularia*⁽⁴⁾.

This case of Eumycetoma was successfully treated with itraconazole for 6 months and swelling reduced significantly with reduced sinuses.

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