Eumycetoma due to *Curvularia lunata*

Sir,

Mycetoma is a chronic granulomatous, suppurative, and progressive inflammatory disease that usually involves the subcutaneous tissue and bones after traumatic inoculation of the causative organism. The condition may be caused by true fungi or by higher bacteria and therefore is classified as eumycetoma or actinomycetoma respectively.[1] It is mainly seen in Africa, India, Mexico, and parts of South America. In India actinomycotic mycetoma is prevalent in south India, southeast Rajasthan, and Chandigarh; while eumycetoma, which constitutes one third of the total cases, is mainly reported from north India and central Rajasthan.[2] The common etiological agents of eumycetoma reported from different centers are *Madurella mycetomatis*, *M. grisea*, *Acremonum* spp., *Aspergillus* spp. and *Fusarium* spp.[3]

We report here a rare instance of eumycetoma caused by *Curvularia lunata* in a 65-year-old male farmer, who presented to the dermatology outpatient clinic of our hospital in September 2007, with swelling of right foot, multiple nodules, and sinuses discharging black-colored granules. His problem started 6 years back as a single nodular swelling on the plantar surface of the foot following trauma. After a few months, painless multiple nodules developed on both plantar and dorsal surfaces of the foot. Some of the nodules broke down, forming openings discharging black-colored granules.

Physical examination of the patient revealed non-tender, gross swelling of the right foot with multiple discharging

sinuses and crusts. The skin over the entire foot was hyperpigmented and thickened; regional lymph nodes did not show any significant enlargement, and systemic examination was unremarkable. All the routine investigations, including foot radiographs and hematological and biochemical tests, were within normal limits. A few black, irregular granules of variable size measuring 0.5 to 2 mm were collected from the patient and subjected to microscopy and culture. Potassium hydroxide (KOH) wet mount revealed brown-colored, septate hyphae approximately 2 × 4 μm in width, interwoven with each other. On Sabouraud's dextrose agar (containing chloramphenicol without cycloheximide), black-colored colonies with white aerial hyphae were isolated after 1 week of incubation. Microscopically, lactophenol cotton blue wet mount of the colony showed erect, unbranched, septate, flexuous, brown-colored conidiophores, along with conidia. The conidia were approximately 20-30 × 8-10 μm in size, smooth walled, olivaceous brown in color, were four-celled with 3 septae and had a larger sub-terminal cell [Figure 1]. The fungal isolate was identified as *Curvularia lunata*. The patient was treated with oral itraconazole 200 mg twice daily. The patient started improving as shown by the reduction of swelling with resolution of the sinuses. He is currently under observation with continued medical treatment.

Curvularia infections in humans are relatively uncommon despite the ubiquitous presence of this soil-dwelling dematiaceous fungus in the environment. There are 31 known species, and the most commonly recovered species in man has been *C. lunata,* followed by *C. geniculata*.[4] Originally thought to be solely a pathogen of plants, *Curvularia* has been described as a pathogen of humans and animals in the last half century, causing respiratory tract, corneal, and cerebral infections. However, only a few cases of mycetoma have been reported till date.[5]

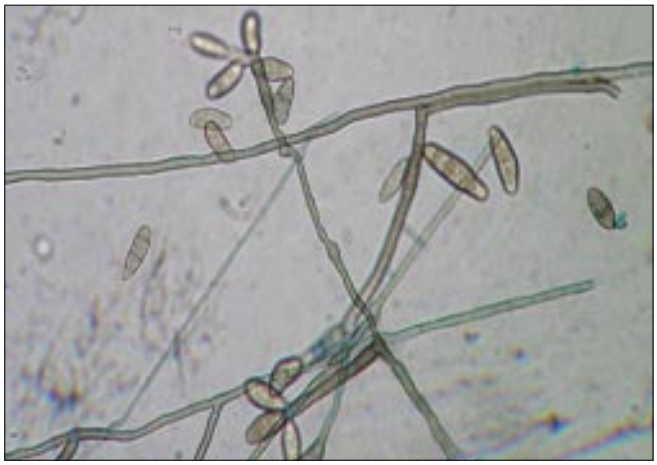

Figure 1: Lactophenol cotton blue wet mount of *Curvularia lunata* showing the characteristic four-celled curved macroconidia (×400)

Proper management of mycetoma strongly depends on the identification of the causative organism; as eumycetoma should be treated with adequate antifungal therapy and surgery, whereas actinomycetoma generally responds well to antibacterial treatment and, in a few cases, surgery is indicated. Early cases are curable, but advanced cases are difficult to treat and may require amputation. Currently, itraconazole and ketoconazole are the best treatment options for eumycetoma, and Mycetoma Research Center (Khartoum, Sudan) recommends ketoconazole (400-800 mg daily) or itraconazole (400 mg daily) for first-line use. In the present case, treatment of the patient was commenced with itraconazole, with signs of improvement.

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