

## First “*Madura foot*” Discovered and Treated in Palestine

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### Abstract

Mycetoma or (*Madura foot*) is defined as a chronic progressive subcutaneous infection that results in a granulomatous inflammatory response in the deep dermis and subcutaneous tissue, which can extend to the underlying bone. This infection caused by either actinomycetes (actinomycetomas) or fungi (eumycetomas), and it characterized by multiple sinuses discharging colored grains at the site of infection. It commonly affects young adults in rural areas especially in tropical areas. Also it can be found but rarely in people who live in cities with agricultural work or farming as soil is considered a natural reservoir for most of the causing pathogens. In general infection usually follows a traumatic inoculation of the pathogen into subcutaneous tissue *via* contaminated materials or in those who become inoculated with the agent after they traveled to tropical or endemic areas. Mycetoma is rarely found in levant area, so we report here the first case of eumycetoma that was discovered and treated in Palestine.

**Keywords:** Actinomycetomas; Eumycetomas; Mycetoma

### About the Study

A 82 year old man from Bethlehem district -Palestine, was admitted to Augusta Victoria Hospital (AVH) in 13/9/2016 with bilateral lower limb skin nodules. The black, non-tender, non-ache nodules had different sizes ranging from 0.5 cm to 3 cm in diameter (**Figure 1**) developed over a period of approximately 3 months [1,2]. The patient was an agricultural worker with a past medical history of left nephrectomy due to obstructive nephropathy and multiple stones with baseline creatinine of 1.5-1.6 mg/dL.



**Figure 1:** The patient legs on admission (14/9/2016).

The patient reported that the first nodule which appeared over the dorsum of his left foot was painless, and within 3 weeks, several nodules appeared on both legs (**Figure 2**). Upon this presentation, the patient was seen by several local doctors whom prescribed several courses of oral and intravenous antibiotics (cefalexine, clindamycin, ceftazidime and vancomycin) in combination with prednisone with no clinical improvement but progression of the disease [3]. In August 2016 (**Figure 3**) the patient went to a dermatologist who took a biopsy and sent it for pathology, after that the patient was referred to AVH with his biopsy results that showed mixed inflammatory infiltrations in deep reticular dermis with small abscesses, consistent with deep mycosis.



**Figure 2:** Legs improvement among treatment period on 6/10/2016.



**Figure 3:** Legs improvement among treatment period on 23/11/2016.

On admission the infectious disease specialist at AVH was called to see the patient case and review his biopsy results, then a decision was made to take another biopsy from two nodules on the left foot for culture, and to start the treatment of mycosis with amphotericin B (0.6 mg/Kg once daily gradually increased to 1.0 mg/Kg) while the patient is hospitalized and waiting for the culture results.

Patient sample was cultured on Sabouraud Dextrose Agar (SDA) and Potato Dextrose Agar (PDA) culture at 24°C for 21 days [4]. After 7 days of incubation grey colonies grew on SDA agar identified as *Madurellagrisea* (Figure 4).



**Figure 4:** Legs improvement among treatment period on 21/12/2016.

Upon notification from the mycology laboratory on the 7<sup>th</sup> day of admission, amphotericin B treatment was stopped and the patient was discharged in 20/9/2016 on oral itraconazole 200 mg twice daily to be followed up after one week and perform kidney function test after 3 days of discharge. Marked improvement in the patient condition was noticed after one week and complete resolution of his lesions within 6 months (Figure 5).



**Figure 5:** Legs improvement among treatment period on 27/2/2017 with complete resolution.

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