

## MYCETOMA CAUSED BY MADURELIA GRISEA IN INDIA

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### Summary

Two cases of mycetoma caused by *Madurella grisea* are described. The diagnosis was established by histological structure of the grains and culture of the fungus. This is probably the 1st report of existence of mycetoma caused by *M. grisea* in northern India.

Majority of the reported cases of Mycetoma caused by *M. grisea* are from South America (Mariat, 1963). A few cases have also been reported from U.S.A. (Mariat, 1963) and from South India (Klokke, 1967 and Gokhalay; Padhye & Thirumalachar 1968). During the year 1971, 2 cases of mycetoma caused by *M. grisea* were observed in our laboratory. The paper presents the observations on these two cases.

### Observations

#### Case—I

A 17 years Hindu male farmer, admitted in P. B. M. Hospital, Bikaner with swelling in right lumbar region riddled with multiple sinuses discharging black granules (Fig. 1). The patient had also similar swelling with sinuses discharging black granules in right inguinal region (Fig. 2). X-ray studies did not reveal any bone involvement. The granules measured 1—2.5 mm. Biopsy from both the lesions revealed the granule, consisting of central unpigmented pale area surrounded by brown hyphae having pigmented walls without intracellular pigment, and brown interstitial material (Fig. 3).

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The washed granules were cultured on Sabouraud's agar containing chloromycetin. After 7 days incubation at room temperature (25—30°C) black, olivaceous colony measuring about 1 cm appeared (Fig. 4). Microscopic examination revealed branched septate hyphae. Local excision with skin grafting was done. Patient did not return for follow-up.



Fig. 1

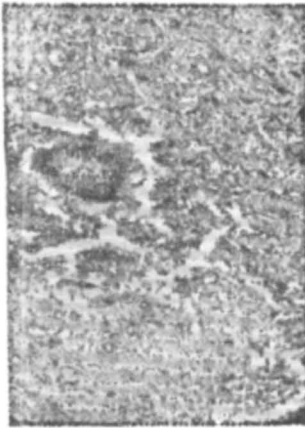
Mycetoma in right lumbar region in case No. 1

#### Case—II

A 40 years, male farmer, admitted with complaints of swelling on left

**Fig. 2**

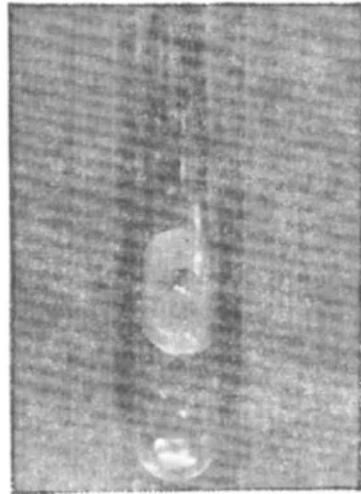
Inguinal lesion in the same patient

**Fig. 3**

Microphotograph of granule in the biopsy of lumbar lesion (x100)

palm, having multiple sinuses discharging black granules for the last 3½ years (Fig. 5). X-ray examination did not reveal bone involvement. Biopsy examination revealed histologic structure similar to that in case 1 so also were the cultural characters of the fungus. Local excision was done. The wound healed. After about 2 months, the patient came back with a swelling on radial side of dorsum, of same hand with two sinuses

discharging black granules (Fig. 6). The biopsy examination and culture of granule confirmed the same fungus which was recovered previously. X-ray examination did not reveal bone involvement. Local excision was performed. No recurrence occurred upto 9 months of follow-up.

**Fig. 4**

Colony of the fungus on S. Agar

**Fig. 5**

Mycetoma in left palm of Case No. 2



Fig. 6

Mycetoma in dorsum of hand in the same patient

### Discussion

Mycetoma has been reported practically from all parts of India (Andleigh<sup>1</sup>, Kandhari et al<sup>5</sup> Padhye, Gokhalay and Thirumalachar<sup>10</sup>, Verghese and Klokke<sup>12</sup>, Klokke et al<sup>7</sup>, Gokhalay et al<sup>3</sup>, Mankodi and Kanvive<sup>8</sup>, Desai, et al<sup>2</sup>, Klokke in 1967) reported 4 cases of mycetoma caused by *M. grisea* in South India by histological studies. The only complete case report (including cultural studies) is from Poona by Gokhalay et al<sup>3</sup>. The present two cases thus are the 6th and 7th cases and are the 2nd and 3rd completely studied cases of mycetoma caused by *M. grisea* in India. It is the first report from this part of the country which is situated in northern part of Rajasthan in Thar Desert (Fig. 7) and is having an arid climate with average rainfall

10-60 mm an year and nearly alternate years of droughts.

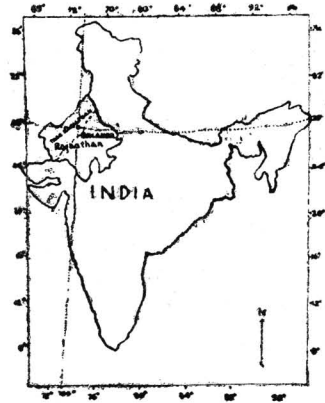


Fig. 7

Location of Bikaner in India

Both these cases are extrapedal and there was no bone involvement whereas the case reported by Gokhalay et al<sup>3</sup> from Poona was the mycetoma with bone involvement. The associated lesion in the inguinal area in first case suggests the lymphatic spread of the disease.

A review of this Hospital records revealed the incidence of extrapedal mycetoma was 18% upto 1970 (Sran<sup>11</sup>) in 1971 it increased to 50% (Joshi et al<sup>4</sup>) the extrapedal cases being 10 out of a total of 20 cases admitted from January to August, 1971. The incidence of *M. grisea* causing mycetoma in this part of the country during the latter period was thus 10% and amongst the extrapedal mycetomas, it was 20%.

### Acknowledgment

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### TRUE or FALSE ?

Wiskott - Aldrich Syndrome is characterised by Eczema thrombocytopenia susceptibility to recurrent infections and low Ig M seen as a sex-linked disorder affecting boys.

(Answer page No. 28)