

MYCETOMA OR MADURA FOOT: ABOUT 2 CASES

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SUMMARY

Mycetoma is a chronic, progressive and destructive granulomatous disease that affects the skin, subcutaneous and connective tissues, muscles and bones, making it a serious condition. It may be fungal or bacterial in origin, and is found electively at the podal level, hence the name "Madura foot". They are common in tropical and subtropical countries but rare in Morocco. We report two cases who had consulted for a polyfistulised swelling of the dorsum of the foot whose diagnosis was suspected clinically and confirmed after anatomopathological examination.

KEYWORDS: Surgery - Mycetoma - Foot – Morocco.

INTRODUCTION

Mycetomas are chronic inflammatory diseases that produce pseudotumours, often polyfistulised, discharging fungal or actinomycotic granules externally. They are endemic in Africa.^[1]

In recent years, there has been renewed interest in this condition.^[2-3] due to improved biological diagnostic methods, medical imaging.^[4-5] and promising results obtained with new molecules used or not in combination with surgery.^[6]

Through these observations and a review of the literature we will try to identify the main characteristics of this condition.

OBSERVATION**Case 1**

A 44-year-old man living in a rural area in western Morocco, farmer, with no notable pathological history, who had not particularly spent time in a tropical area, consulted for a painless swelling of the left foot that had been evolving for 7 years. There was no notion of trauma. Physical examination revealed a swelling of the sole and dorsum of the left foot with papulonodular lesions, some of which were fistulised to the skin (figure 1). Microbiological examination of the aspiration fluid from the fistulous tracts and pathological examination of a skin biopsy revealed black specks of fungal origin with identification of *Madurella mycetomi*. Standard radiography of the right foot showed extensive lytic lesions of the tarsal bones and metatarsal heads (Figure 2). Treatment with ketoconazole 200 mg/d was initiated,

with a slight decrease in swelling after 4 months of treatment, without regression of the bone lesions. The patient refused amputation.



Figure 1: Clinical image of the left foot showing fistulized papulonodular lesions.



Figure 2: Standard x-ray of the left foot showing lytic images in the tarsus and metatarsus.

2nd case

A 51-year-old woman, worker in an agricultural field in southern Morocco, with no previous history, consulted for a sensitive swelling of the left foot that had been evolving for 13 years following a sting from a plant. Physical examination revealed a swelling of the dorsal aspect of the foot and the left ankle with multiple skin fistulas through which pus containing clearly visible black granules was draining (Figure 3). The patient was put on ketoconazole 200mg/day without clear improvement, and due to the extent of the bone lesions the patient was amputated.

Microbiological examination of the aspiration fluid from the fistulous tracts and anatomopathological examination of a skin biopsy revealed black grains testifying to their fungal origin with identification of *Madurella mycetomi*.

Standard radiography of the left foot showed extensive lytic lesions of the tarsal bones and metatarsal heads (Figure 4).



Figure 3: Clinical image of the left foot showing fistulized papulonodular lesions



Figure 4: Standard x-ray of the left foot showing lytic images in the tarsus and metatarsus.

DISCUSSION

Mycetomas are common in tropical and subtropical countries.^[7] Madura foot is defined as a chronic inflammatory swelling with a subcutaneous origin characterized by the presence of pellets that are eliminated from the skin through fistulas.

Its diagnosis can be clinical when the granules are externalized, and generally affects subjects living in rural areas, following wounds from thorns or instruments soiled by the pathogen that lives as a saprophyte in the soil or on plants.^[8]

The pathogen may be bacterial (actinomycetomas) or fungal (eumycetomas).^[9] The color of the grains guides the diagnosis: black for fungal mycetomas, yellow or red for bacterial mycetomas, white for fungal or bacterial mycetomas.

Mycetomas occur preferentially in the foot, which has led to the name Madura's foot,^[10] but other locations have been reported.

The clinical diagnosis can be difficult at the early stage, particularly in non-endemic countries; at an advanced stage, it produces a polyfistulized swelling with the emission of grains of different sizes and colors depending on their nature; at this stage, bone lesions appear.

Radiological examinations must be systematic in order to search for bony lesions and to determine the therapeutic approach.^[11]

The treatment of Madura foot depends on the species responsible and the earliness of the diagnosis. Unlike eumycetomas, where imidazole-based antifungal treatment should be continued for 2 to 4 years and is of uncertain efficacy with frequent recourse to surgery, medical treatment of actinomycetes is generally more effective.^[7]

Prevention is of great interest and is based on disinfecting the wounds and wearing protective footwear.

CONCLUSION

Although they are rare in Morocco, their diagnosis must be evoked at an early stage, especially in subjects living in rural areas; this will condition the therapeutic course of action.

In the past, the diagnosis most often resulted in amputation, but nowadays, thanks to the identification of the pathogen, the development of new molecules and early diagnosis, amputation can be avoided more and more.

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