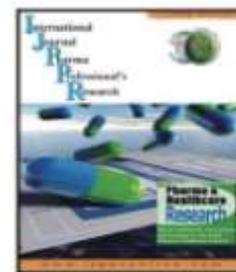




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MYCETOMA OR MADURA FOOT: TWO CASE STUDIES REPORT

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ABSTRACT: Mycetoma is a dangerous sickness since it is a chronic granulomatous disease that develops with time and has the potential to inflict severe harm. This makes it a high-risk condition. It has an effect not only on the skin but also on the subcutaneous and connective tissues, as well as on the skeletal muscles, and it does so independently of the skin. It is a disorder that is noticed electively at the podal level, which is where it receives its name, "Madura foot," and its aetiology may be an infection caused by fungus or bacteria. The ailment is referred to as "Madura foot." Although they are common in tropical and subtropical climes, you will not find many of them in Morocco since the temperature there is more temperate. The clinical diagnosis of polyfistulized edoema of the dorsum of the foot was established in both instances that we present here, and it was subsequently confirmed by an anatomopathological study.

INTRODUCTION:

Mycetomas are chronic inflammatory disorders that induce the formation of pseudotumours. These pseudotumours are commonly polyfistulized and release fungal or actinomycotic granules into the tissue that is around them. They are unique to the continent of Africa and can only be found there. [1] Over the course of the last several years, there has been a noticeable uptick in people's interest in learning more about this condition. [2-3] as a result of advancements in medical imaging and biological diagnostic technology. [4-5] as well as promising results obtained with newly discovered molecules, regardless of whether surgical intervention was accompanied with the use of these molecules. [6] We will make an effort to determine the fundamental features of this condition by making use of these observations in conjunction

with a study of the research that is pertinent to the topic at hand.

Observation:

Case 1:

A 44-year-old man living in a rural area in the western part of Morocco, farmer, with no notable pathological history, who had not particularly spent time in a tropical area, consulted for an asymptomatic swelling of the left foot that had been developing for seven years. The swelling had been increasing in size over the course of the previous seven years. Over the course of those seven years, the swelling had continued to become progressively worse. There was no evidence that any traumatic incident had taken place. An examination of the patient's physical state indicated that the patient's left foot had papulonodular lesions and that the sole and dorsum of the patient's left foot

had enlarged. Additionally, some of the papulonodular lesions had fistulized into the patient's epidermis. Both a microbiological investigation of the fluid aspirated from the fistulous tracts as well as a pathological analysis of a skin biopsy confirmed the presence of black specks of fungal origin. The fungus *Madurella mycetomi* was specifically identified as the source of these black specks. Radiographs of the right foot that were obtained using traditional methods indicated extensive lytic lesions of the tarsal bones and metatarsal heads (Figure 2). The patient saw a little decrease in swelling after commencing therapy with ketoconazole at a dosage of 200 mg per day after 4 months of medication; nevertheless, the bone lesions did not go away completely despite the treatment. The patient expressed their desire to forego the amputation of their limb.



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.

Case 2:

A woman who had no previous medical history and worked in an agricultural field in the south of Morocco sought medical attention for a sensitive swelling on her left foot. The swelling had been developing for 13 years after she had been stung by a plant, and she had worked in the agricultural field her entire life. At the time of her appointment, she had already reached the age of 51. An examination of the patient's physical state revealed that the dorsal area of the foot and the left ankle had enlarged, and there were numerous fistulas in the skin through which pus containing clearly visible black granules was draining. Additionally, the patient had a high fever (Figure 3). Ketoconazole was administered to the patient at a dosage of two hundred milligrammes per day; nevertheless, this did not result in any discernible improvement in the patient's condition. Because of the extent of the bone abnormalities, the patient required an amputation of their limb in order to get treatment. Black granules were seen in both a microbiological analysis of the aspiration fluid from the fistulous tracts and an anatomopathological evaluation of a skin biopsy. These dark granules were evidence that the illness was caused by fungi, and the fungus that was found to be responsible for the infection was determined to be *Madurella mycetomi*. Radiography performed using more traditional methods indicated extensive lytic lesions in the patient's left foot, namely in 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:

In many instances, the incidence of mycetomas is much greater in countries that are classified as tropical or subtropical. [7] A "madura foot" is a protracted inflammatory swelling that begins in the subcutaneous layer of the skin. This condition is referred to by the name "madura foot." The presence of pellets that are released from the skin via fistulas is one of the defining characteristics of this illness.

After the granules have been subjected to the elements of the outside world, it may be possible to perform a clinical diagnostic. It manifests itself as an infection either in wounds that have been caused by thorns or on tools that have been contaminated by the pathogen, which is a saprophyte that grows in the soil or on plants. People who live in more remote locations have a greater chance of being impacted by this ailment than those who do not. [8] There is a chance that the infectious agent is a fungus (actinomycetomas) or a bacterium. Both are possibilities (eumycetomas). [9] It is possible to use the colour of the grains as a diagnostic help. Black granules are indicative of a fungal mycetoma, whereas yellow or red grains indicate a bacterial mycetoma. White grains might indicate either a fungal or bacterial mycetoma.

Mycetomas are most often seen in the foot, which is how they got the name "Madura's foot." [9] Despite the fact that they have been observed in other places of the body as well. The foot is the most common location

where mycetomas are found. [Further citation is required]

When it reaches a more advanced stage, it produces a polyfistulized swelling with the emission of grains of varying sizes and colours depending on the nature of the grains; when it reaches this level, bone lesions appear. When it reaches this level, bone lesions produce a polyfistulized swelling with the emission of grains. It may be difficult to make a clinical diagnosis in the early stages of the illness, especially in countries where the condition is not common.

Radiological examinations need to be carried out in a methodical and cautious fashion in order to identify any bone lesions that may be present and to determine the treatment strategy that will be most successful in resolving the issue.[8] The therapy for Madura foot is contingent not only on the kind of animal that is responsible for the condition but also on the speed with which it is identified. This is because the disease may be fatal if left untreated for too long. This is because correctly identifying the species is essential to ensuring that the therapy will be effective. Actinomycetes, in contrast to eumycetomas, often respond better to medical treatment, which leads to a larger percentage of successful outcomes. In the case of eumycetomas, treatment with an antifungal medication that is based on imidazole should be maintained for two to four years. Despite this, the success of this treatment is debatable, and frequent resort to surgery is necessary. [7] The importance of prevention cannot be overstated; this may be done by cleansing wounds and wearing footwear that is specifically intended to protect against infection.

Conclusion:

Even though they are relatively rare in Morocco, it is imperative that a diagnosis be made of them as quickly as is humanly feasible, especially in people who reside in rural areas; this will help establish the treatment strategy that has to be implemented.

In the past, the diagnosis almost always resulted in amputation, but in today's world, amputation may be prevented more and more frequently due to the discovery of the pathogen, the creation of new molecules, and early detection. In the past, amputation was almost always the final result of the diagnosis.

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