Mycetoma of the foot


Service de Traumatologie-Orthopédie, CHU Ibn Sina, Rabat Maroc

Abstract

The authors report a case of mycetoma of the foot (Madura foot). This is a patient of 34 years with a chronic swelling of the right foot with fistulas giving a purulent yellow ischcontaining grains. Antibiotics and antifungal treatments have not worked. Radical treatment was necessary.

Keywords

Foot mycetoma, Madura foot.

Introduction

Mycetoma is a Nickname granulomatous chronic subcutaneous tumor first described by Mc Gill in the 19th century in the region of Madurai in India.

Mycetoma or Madura foot is characterized by fistulae surface with emissions grains and deep fascia and bone involvement.

Agent:
- Mushroom (Madurellamycetomi, Madurellagrisea, ...)
- Or bacterium (pelletieriActinomadura and madurae, a Pet brasillensis and asteroidios).

Target Population: rural (farmworkers).

The surgical procedure is still required in the therapeutic management.

The authors report one case of Madura foot compiled in orthopedic department of CHU of Rabat.

Clinical observation:

34 year old man with no clinical antecedent or significant pathological or notion of living in an area tropicale. represented for 4 years dorsal swelling of the right foot, painless and without functional impairment. The patient had received various antibiotic treatments without any results. The evolution was marked by a gradual increase in the volume of swelling causing functional impairment with fistulas after 3 years. Clinical examination found a tumor next to the 2nd, 3rd, 4th and 5th metatarsal, hard and adherent to the skin. (Fig. 1 and 2).

Radiography objectified bone lysis with redesign of the skeleton of the foot. (Fig. 3). Our patient was treated surgically. Biopsy objectified yellowish swelling. The ana-path found inflammatory sudepockets containing yellowish grains and mycological examination conducted under the paraclinical post operative (direct examination + Culture) found the Madurellamycetomi.

Our patient received antifungal treatment but without good results. For this process we unfortunately did amputation of the right foot.

Post-operative course was uneventful and the amputation stump without any abnormality at one year.

Discussion:

Cracking most often in rural areas, Madura foot affects more men than women (3 men to 1 woman) (1, 2). The starting point for these tumors is a traumatic inflammatory inoculation soiled (vegetable thorns) with germs from the ground or through skin abrasions (3) agents. Mycetoma (fungal or bacterial aggregates) developed at the site of inoculation. This type of contamination explains the frequency of locations in the foot and leg. The incubation period is difficult to determine (a few weeks or a few months). These trainings evolve into abscesses giving pus containing grains of black, sometimes yellow, red or white (depending on the pathogen). One aspect of multiple gomusis often found. Depending on the bonetropism of the causative organism, the progression is towards the depth, then the seasis bone erosion and abscess lined fibrosithas achieving the confluence that lead to extensive destruction of bone. Treated well, the result is usually good.

Uncontrolled secondary osteogenesis leads to complex lesions performing with the appearance of the soft parts of pseudotumor. The germ in our case is not very osteophilic (Madurellamycetomi) unlike other organisms such as Streptomyces Pelletieri. The functional impact remains due to the discretion of pain. Radiographically images honeycomb or foam soap. Resorption of whole bone segments are not uncommon, and the disappearance of the metatarsals, the anteriortarsal or otherskeletal segments (4, 5, 6) is observed.

Wecanalsos see densifications corresponding to éburnations bone and peristeal reactions especially at tendon insertions.

Other locations have been described: hand, knee... Complications can be: local (gangrene) or regional (lymphnode). Visceral metastases via the lymphatic system have been reported. The diagnosis is not easy in endemic areas or when the typical appearance madura foot is made. Often early laboratory tests are needed. Histologicalexamination shows that the grains are of varying size and staining properties (PAS, hematoxylin, Man...). Sometimes used to cultures on specialmedia. The clinical differential diagnoses are mainly with tuberculosis, syphilis and leishmaniasis (4, 5, 6). On radiographs, they are with osteomyelitis, Kaposi's sarcoma and other fungal infections. Medical treatment is based on antibiotics when the agent is bacterial (sulfonamides) and antifungals when it is
mycotic (Ketoconazole, amphotericin B, 5 fluorocytosine) (7, 8). The results are disappointing in fungal infections and variables for infringement bacterial. The surgery is often the rule. It consists of a widest possible resection. Unfortunately it is often necessary to perform a radical surgical treatment.

**Figure 1:** Mycetoma foot seen on the back foot

**Figure 2:** Mycetoma foot seen on the foot

**Figure 3:** X-ray of the foot showing the métacarpophalangienne lymphosismycetoma

**Conclusion:**

Madura foot is a condition that is still rampant in Morocco especially in rural areas. Treatment means staking early diagnosis and treatment to prevent acts of regularization sometimes extended.

**Bibliography:**