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Mycetoma of the foot

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ABSTRACT

The authors report a case of mycetoma of the foot (Madura foot). This is a patient of 34 yearswith a chronicswelling of the right foot withfistulasgiving a purulent yellow ishcontaining grains. Antibiotics and antifungaltreatments have not worked. Radical treatmentwasnecessary.

Introduction

Mycetomais a Nicknamegranulomatouschronicsubcutaneoustumor first described by Mc Gill in the 19th century in the region of Madurai in India.

Mycetoma or Madura foot ischaracterized by fistulae surface withemissions grains and deep fascia and boneinvolvement.

Agent:

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

Target Population: rural (farmworkers).

The surgicalprocedureisstillrequired in the therapeutic management.

The authors report one case of Madura foot compiledin orthopedicdepartement 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.hepresented 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 gradualincrease in the volume of swelling causing functional impairment with fistulasafter3years .Clinical examination found a tumornext to the 2nd, 3rd , 4th and 5th metatarsal , hard and adherent to the skin. (fig. 1 and 2) .

Radiography objectified bonelysis with redesign of the architecture of the skeleton of the foot. (Fig. 3). Our patient wastreatedsurgically. Biopsyobjectifiedyellowswelling. The ana -pathfoundinflammatorysidepocketscontainingyellowish grains and mycological examination conducted under the paraclinical post operative (direct examination + Culture) found the Madurellamycetomi .

Our patient receivedantifungaltreatment but withoutgood results. For thisprocessweunfortunatelydid amputation of the right foot.

Post- postoperative course wasuneventful and the amputation stumpwithoutanyabnormalityat one year .

Discussion :

Cracking mostoften in rural areas, Madura foot affects more men thanwomen (3 men to 1 woman) (1 , 2) .The starting point for thesetumorsis a traumaticinflammatory inoculation soiled (vegetablethorns) withgermsfrom the ground or through skin abrasions (3) agents. Mycetoma(fungal orbacterialaggregates) developpedat the site of inoculation . This type of contamination explains the frequency of locations in the foot and leg . The incubation periodisdifficult to determine (a few weeks or a few months). These trainings evolveintoabscessesfistulisentgiving pus containing grains of black, sometimesyellow, red or white (depending on the pathogen). One aspect of multiple gumsis often found. Depending on the bonetropism of the causative organism, the progression is towards the depth, then the seatisboneerosion and abscess lined fibrosisthusachievinggeodes whose confluence led to extensive destruction of bone . Treated well , the resultisusually good.

Uncontrolled secondary osteogenesis leads to complex lesionsperformingwith the appearance of the soft parts of pseudotumor . The germ in our case isnot veryosteophilic(Madurellamycetomi) unlike other organisms such as Streptomyces Pelletieri . The functional impact remainslow due to the discretion of pain. Radiographically images honeycomb or foamsoap .Resorption of wholebone segments are not uncommon , and the disappearance of the metatarsals , the anteriortarsal or otherskeletal segments (4, 5, 6) isobserved.

Wecanalsosee densifications corresponding to éburnations bone and periostealreactionsespeciallyat tendon insertions .

Other locations have been described : hand, knee ... Complications canbe: local (gangrene) or regional (lymphnode). Visceralmetastases via the lymphatic system have been reported. The diagnosiscanbeeasy in endemic areas or when the typicalappearancemadura foot ismade .Often early laboratory tests are needed. Histologicalexamination shows that the grains are of varying size and stainingproperties (PAS, hematoxylin , Man ...) . Sometimesused to cultures on specialmedia. The clinicaldifferential diagnoses are mainly with tuberculosis, syphilis and leishmaniasis (4, 5.6) . On radiographs ,they arewithosteomyelitis , Kaposi'ssarcoma and otherfungal infections. Medicaltreatmentisbased on antibiotics when the agent isbacterial(sulfonamides) and antifungals when it is

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mycotic (Ketoconazole , amphotérecine B , 5 fluorocytosine) (7 , 8) . the resultsare disappointing in fungal infections and variables for infringementbacterial . The surgeryisoften the rule . It consists of a widest possible resection. Unfortunately it is often necessary to perform a radical surgicaltreatment.

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 métacarpophlangiennnelysismycetoma

Conclusion:

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

Bibliography :

1-Hay RJ et al:Mycetoma. J Med VetMycol1992; 30 Suppl 1: 41-9.

2-Mariat F, Destombes P, SegretainG: The mycetomas: clinicalfeatures, pathology, etiology and epidemiology. ContribMicrobiolImmunol1977; 4: 1-39.

3-A. MOUNIER-K KUHN et coll. Mycétome du pied. Société de chirurgie de Lyon, 71 :18.2, 141 - 142.

4- DAVIES AGM. The bone changes of Madura foot: observation on Uganda Africans. Radiology 70: 841, 1958.

5- LEWALI DB, OFOLE S, BENDLE B. Mycetoma. SkeletalRadiol. 14:257.

6- REEDER MM, PALMER PES. The radiology of tropical disease.1981: 364-378.

7-Welsh O, Sauceda E, Gonzalez J, OcampoJ:Amikacinalone and in combination with trimethoprim-sulfamethoxazole in the treatment of actinomycoticmycetoma. J Am AcadDermatol 1987 Sep; 17(3): 443-8.

8-Welsh O:Mycetoma. Current concepts in treatment. Int J Dermatol 1991 Jun; 30(6): 387-98.