SNS COLLEGE OF ALLIED HEALTH SCIENCES

SNS Kalvi Nagar, Coimbatore - 35

Affiliated to Dr MGR Medical University, Chennai

DEPARTMENT: ALLIED HEALTH SCIENCES

COURSE NAME: ORTHOPEDICS

Topic:Mycetoma

Introduction

Definition

Mycetoma is a chronic, granulomatous disease of the skin and subcutaneous tissue, which sometimes involves muscle, bone, and neighboring organs

the triad of mycetoma

Mycetoma presents as a triad of painless, firm subcutaneous masses, formation of multiple sinuses within the mass, and a purulent or seropurulent discharge containing sand-like particles called "grains," that can be white, yellow, red, brown, or black.

Etiology,Risk factors & Complications

- Mycetoma is a disease caused by certain types of bacteria and fungi found in soil, plant matter, and water. These bacteria and fungi may enter the body through a break in the skin.

RISK FACTORS

- all age groups
- mostly agriculture works
- mens are more sffected than womens

COMPLICATION

- Secondary bacterial infection.
- Joint ankylosis and loss of function.
- Chronic edema.
- Atrophy of the disused limb (reduction in size and strength)
- Pain.

Signs & Symptoms

Following the initial injury, the disease typically follows a slow chronic course over many years with painless swelling and intermittent discharge of pus.

There may be a deep itching sensation.

Pain may occur due to secondary bacterial infection or bone invasion.

After some years, massive swelling of the area occurs, with induration, skin rupture and sinus tract formation. As the infection spreads, old sinuses close and new ones open.

The exudates are typically granular.

Assessment 1

- 1. Explain the mycetoma
- 2. Mention the Risk factors
- 3.Etiological factor

Diagnosis

- Microscopy and culture of exudates and skin biopsy for pathology are necessary to identify the causative organism.
- Serology can be helpful with diagnosis or follow-up care during medical treatment.
- DNA sequencing has been used for identification in difficult cases.
- Plain X-rays are used to assess for evidence of bone involvement.
- CT scan may be more sensitive in the early stages.
- MRI scans can provide a better assessment of the degree of bone and soft tissue involvement, and may be useful in evaluating the differential diagnosis of the swelling.

Assessment 2

- Role play about symptoms-1

Treatment

- Actinomycetomas usually respond better than eumycetomas to medical treatment - the latter often being difficult to treat. Bone involvement complicates clinical management, often leaving surgical amputation as the only treatment option.

- Due to the slow, relatively pain-free progression of the disease, mycetoma is often at an advanced stage when diagnosed.
- Surgical debridement, followed by prolonged appropriate antibiotic therapy for several months is required for actinomycetoma.9 Combination therapy with trimethoprim-sulfamethoxazole, dapsone and streptomycin has been used. Rifampin has been used in resistant cases.

- Eumycetomas are only partially responsive to antifungal therapy but can be treated by surgery, due to their normally well circumscribed nature. Surgery in combination with azole treatment is the recommended regime for small eumycetoma lesions in the extremities.11 M. mycetomatis may respond to ketoconazole,12 P. boydii (S. apiospermum) may respond to itraconazole. Other agents of eumycetoma may respond intermittently to itraconazole or amphotericin.

- The use of traditional herbal medicine is commonly associated with a delay in seeking medical care, resulting in patients presenting with more advanced disease.

Assessment-3

Quiz about

- 1. Surgical managements
- 2. Non surgical management