11 YEARS OF NON-HEALING

THE HIDDEN FUNGAL THREAT IN FOOT OSTEOMYELITIS

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Abdullah Al-Mallah

MD Vascular Surgery - Al-Azhar University,

Medical Education Specialist – Assiut University

Vice Manager of: Medical internship Unit

Board Member of: Medical Education Unit, Quality Assurance Unit

Designed and presented firstly by: Dr. Abdullah Al-Mallah on : 22/8/2024

✉ Abdullah.Al-Mallah@azhar.edu.eg

INTRODUCTION

"Today, I'll discuss a rare and challenging case of fungal osteomyelitis in a young manual worker—a condition that challenged diagnosis and treatment for over a decade.

"My aim is to share insights from this 11-year journey, emphasizing the importance of considering atypical infections in persistent foot infection conditions."

CASE PRESENTATION

- **Patient Background:** "The patient is a 30-year-old
  - manual worker
  - who presented with a history of foot swelling that began 11 years ago."
- "Interestingly, the swelling was
  - non-painful but
  - was marked by multiple sinuses that continuously oozed pus."

INITIAL MANAGEMENT:

"Over the 11 years, the patient underwent **several surgeries** for local debridement, but unfortunately, the swelling persisted, and the sinuses never fully healed."

"Despite multiple interventions, the condition **worsened**, with swelling increasing and the sinuses remaining."

DIAGNOSTIC JOURNEY

Investigations:

- "Initial imaging with an **X-ray** revealed bony destruction of metatarsal bones, suggesting osteomyelitis.“
- "An **MRI** was performed, showing abnormal swelling on the sole of the foot, infiltrating all foot spaces, raising suspicion of a more complex underlying pathology."

SURGICAL INTERVENTION

"Given the lack of resolution, I decided to proceed with surgical intervention.

This involved a wide excision of the lesion, carried out in two separate sessions."

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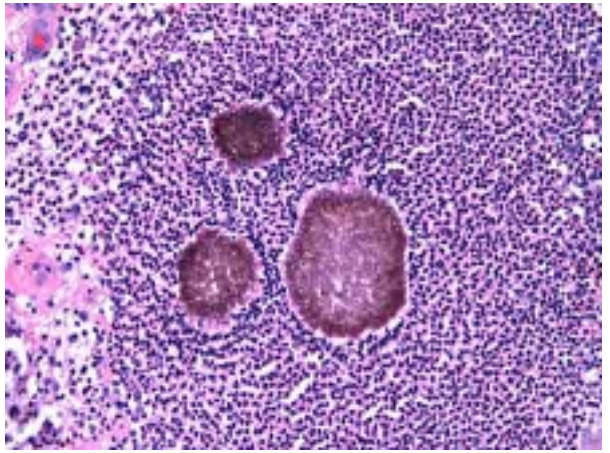
PATHOLOGICAL FINDINGS

"The excised specimen was sent for pathological analysis, which surprisingly revealed a large mycetoma—a rare fungal infection—causing the osteomyelitis.“



Fungal Elements: “Within the inflamed tissue, there are **large aggregates of fungal elements, consistent with eumycetoma**. The fungi appear as thick-walled, septate hyphae and/or grains, some with characteristic staining properties (e.g., brown, black, or pale staining depending on the type of fungus).

"Bone Involvement: "Sections of bone show marked destruction with evidence of osteomyelitis. The fungal elements are seen infiltrating the bone, causing extensive necrosis and loss of normal bone architecture."

TREATMENT AND CHALLENGES

"Following the diagnosis, the patient was placed on Fluconazole 150 mg once a week repeated for 3 weeks."

- Local antifungal was added to the dressing.
- "The treatment plan also included **ongoing surgical debridement** and close monitoring."

CHALLENGES

This case posed several challenges, from the delay in accurate diagnosis to the difficulty in completely eradicating the infection despite aggressive management."

- "The presence of a large fungal mass made surgical excision complex, requiring careful planning and performance over multiple sessions."

PATIENT OUTCOME

"Currently, the patient is under close follow-up, with stable granulating wound, decreasing in size”

KEY TAKEAWAYS

This case underscores the need for

early consideration **of fungal infections** in non-healing diabetic foot cases, especially when traditional bacterial treatments fail."

"**Pathological** examination and appropriate **imaging** are crucial in identifying atypical pathogens."

FINAL THOUGHTS

In conclusion, this case serves as a reminder to think beyond the usual suspects in persistent foot infections, particularly in young, non-diabetic patients with chronic symptoms.

RESEARCH QUESTION

Can immigrants change the disease epidemiology and rarity of some diseases?!

Eumycetoma is prevalent and common in Sudan for example.

CALL TO ACTION

" I encourage my colleagues to maintain a high index of suspicion for fungal infections and to consider early pathological investigation in similar cases."

Honored to present to my prestigious audience

Thank you