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The Great Mimicker: Osteoarticular Sporotrichosis Masquerading as Tuberculosis

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Introduction

Sporotrichosis, also known as rose gardener's disease, is a rare fungal infection caused by the dimorphic fungus Sporothrix schenckii. It typically affected the skin, however occasionally involved joints. It causes a significant diagnostic challenge in immunocompromised host due to its ability to closely mimic more prevalent granulomatous diseases, particularly tuberculosis (TB). We described a case of osteoarthritis and cutaneous sporotrichosis with systemic lupus erythematosus (SLE) presented as a classic diagnostic conundrum in lady with systemic lupus erythematosus (SLE).

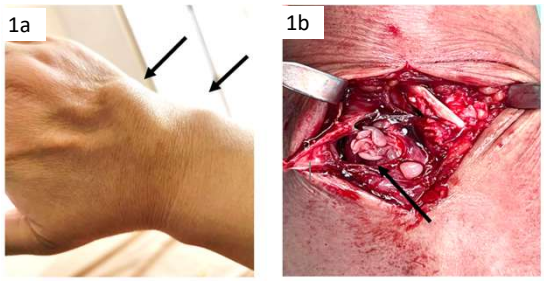

Fig 1a: The swollen right wrist with subcutaneous nodules above the joint area (arrows).
Fig 1b: intraoperative findings showed multiple rice bodies on right wrist (arrow).

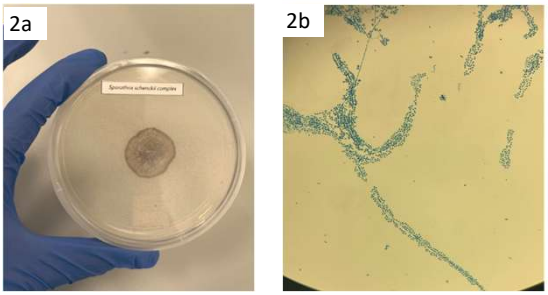

Fig 2a: moist and glabrous, with wrinkled and folded surface colonies grown on potato agar slow growing at 25 degrees Celsius.
Fig 2b: microscopic examination showed conidiophores.

References:

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Case Description

A 51-year-old lady with systemic lupus erythematosus (SLE) and class IV lupus nephritis, on immunosuppressive therapy, presented with six months right wrist pain and swelling which limited her daily activities. She also noticed painless cutaneous nodules extending from wrist to forarm for 2 months. MRI revealed osteomyelitis of distal radius, distal ulna, carpal bones, and the metacarpals. Surgical exploration with sequestrectomy and synovectomy of right wrist noted multiple rice bodies with lytic lesions on distal radius; which prompting the initiation of empilical anti-tuberculous (TB) therapy for musculoskeletal tuberculosis. However, the lack of clinical response to anti-TB which patient experienced increase wrist pain and swelling with increase cutaneous nodules. This prompted the consideration of alternative etiologies. Histopathological examination of tissue biopsy subsequently revealed chronic inflammation with necrotic tissue but no granuloma. Fungal culture isolated Sporothrix schenckii. Antifungal agent itraconazole was initiated and yielding a significant clinical improvement within two weeks and demonstrating excellent treatment response.

Discussion & Conclusion

This case emphasizes the critical imperative for clinicians to maintain a high index of suspicion for fungal mimics like sporotrichosis in particularly immunocompromised individuals presenting with treatment-refractory presumed TB. Microbiological and histopathological confirmation remains crucial to guide appropriate and timely therapy, thereby optimizing therapeutic outcomes and preventing long-term musculoskeletal sequelae. The mainstay of treatment for sporotrichosis is itraconazole. Breakpoints for antifungal susceptibility have not been established. The duration of treatment depends on the location and severity of the disease.