

Case Report

A CASE OF SPOROTRICHOSIS IN PATIENT VISITING MICROBIOLOGY LABORATORY IN BPKIHS

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INTRODUCTION

Sporothrix schenckii is a fungus known to cause infection of skin in the subcutaneous tissues. It is a dimorphic fungus found as hyphae with conidia (2 to 3µm in diameter) at 25°C, and in cigar-shaped yeast form (4 to 6µm in diameter) in animal tissues at 37°C.^{1,2} It is ubiquitous in nature and often found in rotting wood, dead plant materials, surface water, and occasionally, swimming pools. Human and animals almost always become infected through a cutaneous lesion.³

CASE REPORT

This report describes a male of 18 yrs who has visited Dermatology out patient department with history of wound over right leg in anterior part over 3 years. The patient was from Taplejung, Nepal. There was no history of trauma and the wound developed from boil like lesion. Patient had already taken six months of anti-tuberculin treatment. Nature of wound was of 3x3 cm and covered with scab. There was no noticeable fresh pus discharge. There was a single erythematous violaceous plaque of 3x5 cm in size of well defined margin, oval in shape present at middle 1/3rd of anterior aspect of right leg. The surface of the plaque has multiple erosion of irregular shape of the well defined margin with serous discharge. There was no active bleeding. Differential diagnosis made on this case were viz; lupus vulgaris, fixed type sporotrichosis and cutaneous leishmaniasis. Biopsy was taken and sent to laboratory for histopathologic finding and fungal culture.

Reports of pathology: Histopathological examination of the skin biopsy specimens showed non-caseous, well-formed granulomas, consistent with sarcoidosis. Staining for acid-fast bacilli, periodic acid-Schiff-positive bacilli and fungi was negative. Many fungal structures suggestive of *S. schenckii* was observed.

Reports of fungal culture: After 7 days of incubation at 37°C and 25°C in Brain heart infusion (BHI) blood agar and Sabourouse detrose again (SDA) respectively, growth of fungus was noted. At 25°C, colonies were white, moist and glabrous, with a wrinkled and folded surface (Figure 1). Slide culture was done from growth. Lacto pheno catfon blue (LPCB) preparation from slide culture showed conidiophores at right angles from the thin septate hyphae. Conidia were formed in clusters as their arrangement suggesting a flower. Conidia were ovoid (3-6 x 2-3 µm in size) and hyaline (Figure 2).



Figure 1: Culture growth of *Sporothrix schenckii*

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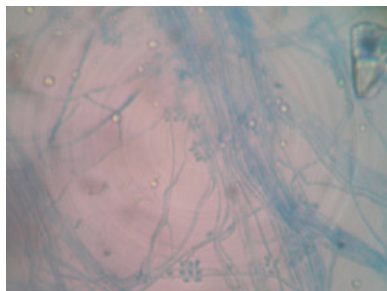


Figure 2: Morphology of *Sporothrix schenckii* in LPCB

On BHI blood agar at 37C, colonies were glabrous, white and yeast-like. On LPCB preparation these colonies showed spherical or oval budding yeast cells. All these features were suggestive of *Sporothrix schenckii*.

Conclusion:

Typical clinical presentations of lymphocutaneous sporotrichosis is characterised by involvement of lymphatics that drain primary site of inoculation and development of linear nodulo-ulcerative secondary lesion along lymphatic. Lymph nodes become swollen and suppurate and connecting lymphatic channel becomes indurate and

form serpentine and cord-like.⁴ These features were absent in present case which delayed the proper treatment in time. So, in history of cutaneous lesion, fungal infection should also be kept in differential diagnosis and investigation for culture should be sent. This will help in proper and soon diagnosis and treatment. Fungal cultures also support the diagnosis of histo-pathological findings.

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