

Case Study

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## Isolation of *Sporothrix schenckii* from Ear Discharge - An Unusual Presentation of Sporotrichosis

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### ABSTRACT

#### Keywords

Sporotrichosis,  
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#### Article Info

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Sporotrichosis is chronic fungal infection and regarded as occupational disease affecting florist, farmer, gardener etc. Lymphocutaneous form of the disease is common. But here we present a case of mucocutaneous sporotrichosis of ear of a housewife. It is a very rare condition.

### Introduction

Sporotrichosis is chronic fungal infection follows the implantation of spores in a penetrating wound (Bhutia *et al.*, 2011). *Sporothrix schenckii* grows in soil or vegetations (Rei *et al.*, 2015). It is regarded as occupational disease (Lederer *et al.*, 2016). But here we report a case of mucocutaneous sporotrichosis of ear in a 30yrs old housewife leads to chronic suppurative otitis media (CSOM).

### Case report

A 30 years old housewife from a village of Burdwan District came ENT OPD with complain of suppurative ear discharge from

left ear for more than 3 weeks along with dull ear ache and on and off fever. Ooscopic findings revealed chronic suppurative otitis media (CSOM) and the swabbing of the seropurulent ear discharge was sent to the Microbiology Laboratory for further investigations. Direct staining of the sample was followed by the inoculation of the sample on both bacterial and fungal culture media. Gram's stain showed Gram positive cocci in clusters with few pus cells. KOH mount showed some elongated yeast cells. Colonies of *Staphylococcus aureus* was appeared on Blood agar. SDA (Sabouraud's Dextrose Agar) culture at 25°C showed black colonies within a week (Picture 1). Lactophenol cotton

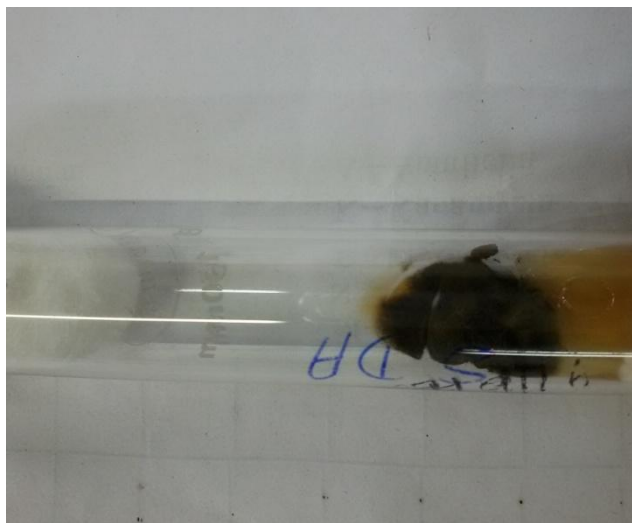
blue (LPCB) gave the typical ‘Twisted rope’ appearance of septate hyphae with flower like sporulation [Picture 2(i) and 2(ii)]. SDA culture at 37°C showed the cream coloured colonies (Picture 3) Gram’s stain of that colonies showed ellipsoidal yeast cells (Pic-4). The demonstration of dimorphism and other associated features proved the identification of *Sporothrix schenckii*.

*Staphylococcus aureus* was also isolated causing CSOM. Subsequently the patient was responded well with the therapy of saturated solution of potassium iodide (SSKI) along with antibiotic coverage.

## Results and Discussion

We hypothesize that, the source of infection was straw from field as the patient had a habit of using straw stick for removing ear-wax. The mode of entry can be through scratches or blunt injury. It has been known that a humid and moist climate favours the growth of *S. schenckii* (Motswaledi *et al.*, 2011). The ear cavity gave the perfect enrichment for *Sporothrix*. The infection was typically chronic and may favour the super infection of CSOM by *Staphylococcus aureus*. It usually occurs in people occasionally exposed to outdoor works like mine workers, farm workers, gardeners and florists (Xavier *et al.*, 2013).

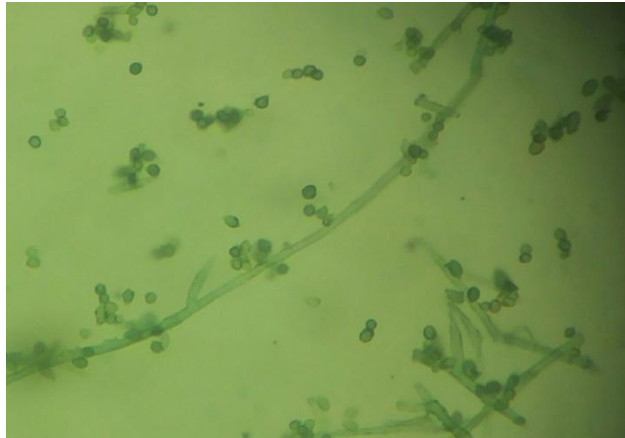
**Pic.1** showing the black colonies on SDA at 25°C



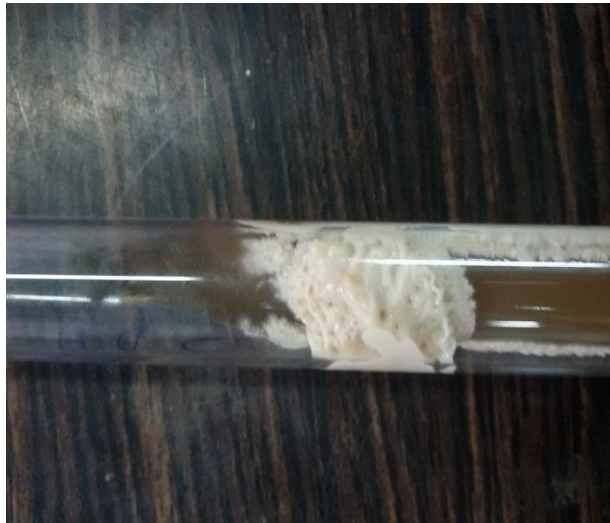
**Pic.2a** LPCB stain shows ‘Twisted rope’ appearance (10x)



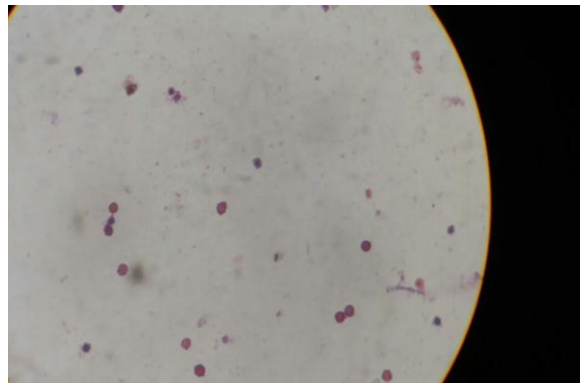
**Pic.2b** LPCB stain shows flower like appearance (40x)



**Pic.3** Cream coloured colonies on SDA at 37°C



**Pic.4** Gram's stain shows yeast cells



But here the patient is housewife. Mucocutaneous type of sporotrichosis is occasional and generally occurs on mouth, pharynx and nose. Pain is common in mucocutaneous type which is rare in cutaneous type. We must remark that the gold standard for diagnosis of sporotrichosis is mycological culture for fungi isolation and identification with relevant clinical presentation (Wang *et al.*, 2000). Melanization also has a role in the pathogenesis of cutaneous sporotrichosis, (Monica *et al.*, 2011). Since pigmented isolates had a greater invasive ability (Coskun *et al.*, 2004).

In conclusion, we describe a case of mucocutaneous sporotrichosis in an uncommon location with an unusual mode of transmission. The case report describes the risk factor, diagnosis, and treatment of this unusual infection. Sporotrichosis should be considered in the differential diagnosis of such clinical presentation. The aim is early diagnosis and treatment. Awareness of this disease and an extensive environmental study is required to understand the epidemiology. Here we emphasize the disease importance. To the best of our knowledge, this is the first reported case from West-Bengal.

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