

A case of *Scedosporium apiospermum* Otomycosis

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ABSTRACT

Otitis externa caused by *Scedosporium apiospermum* is extremely rare. We report a case of otomycosis in a chronic alcoholic who presented at the Otorhinolaryngology Outpatient Department with complains of right ear discharge and hearing loss. *Scedosporium apiospermum* (*Pseudallescheria boydii*) was isolated repeatedly from ear discharge. The patient was treated with surgical debridement and topically with Clotrimazole.

Key words: Otitis externa, Otomycosis, *Scedosporium apiospermum*

CASE REPORT

A 59 year old male head load worker presented at the Otorhinolaryngology outpatient with persistent purulent ear discharge right side and hearing loss for the past 6 months. He was treated at the local hospital for Chronic suppurative otitis media (CSOM) several times. Since there was no relief he was referred to this centre and the case was diagnosed as otomycosis.

He was not a known Diabetic or Hypertensive., but was a chronic alcoholic. He was not on Steroid therapy. Audiometry result showed moderate hearing loss on the right side.

Saline extraction was done at the ENT OP and otomycotic debris was removed. Debris was sent to the clinical microbiology lab for fungal culture. Patient was given surgical debridement. Patient was advised topical application of Clotrimazole and discharged. The surgeon was planning to do a mastoid exploration later.

10% KOH revealed no fungal elements. Two slopes of Sabourauds Dextrose Agar (SDA) were inoculated, one kept at 37°C, other at 22°C. SDA at 37°C showed growth after 5 days, while there was no growth on SDA at 22°C.

White and fluffy colonies were seen which later turned grey in colour. House mouse grey appearance of the colonies is characteristic [Figure 1]. Reverse is grey to black.

Lactophenol cotton blue mount of growth showed mass of long hyaline branching septate hyphae. Unicellular, subglobose, colourless conidia arising singly and in small groups on elongate and branched conidiophores or laterally on hyphae were seen. With the characteristic appearance of lollipops on a stick [Figure 2]. Large, narrow, erect dark conidiophores can be seen in bundles with conidia in tufts. This *Graphium synnemata* has the characteristic appearance of wheat sheaf [Figure 2]. The fungus was identified as *Scedosporium apiospermum* (asexual form). Subculture on SDA slopes also yielded similar growth both at 37°C and 22°C, confirmed by microscopy.

The patient came for review after two months, with persisting otorrhoea again. The ENT Surgeon did saline extraction and sent a repeat specimen of ear swab to the Microbiology Lab which also yielded the same organism. Patient was advised topical application of Clotrimazole again. He was relieved of the symptoms. Now he is awaiting a mastoid exploration for Chronic Suppurative Otitis Media.

DISCUSSION

Scedosporium apiospermum is a perfect fungus. It can reproduce both sexually and asexually in culture in standard media.

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Figure 1: Grey colonies of *P. boydii*

Sexual form or Telomorph is *Psuedallescheria boydii*. Asexual forms or Anamorphs are 1) *Scedosporium apiospermum* 2) *Graphium synnemata*

Presence of Cleistothecia indicates sexual form. They are found enmeshed in the hyphae of anamorphs. They contain numerous asci that are released when cleistothecia ruptures. Each ascus contain eight ascospores.

S. apiospermum is found in soil, sewage, and polluted water. It is an uncommon laboratory isolate. This organism usually causes infection in immunocompromised individuals. Recently it has emerged as a pathogen in both immunocompromised and non-immunocompromised patients. *S. apiospermum* infections include invasive pulmonary disease, sinusitis, brain abscess, endocarditis, osteomyelitis, fungemia, etc.^[1,2] Otitis externa caused by *S. apiospermum* is extremely rare.

Patil *et al* reported a case of *S. apiospermum* external otitis in an immunocompetent man. Here the patient was treated successfully with topical Itraconazole.^[3] Yao and Messner diagnosed malignant otitis externa caused by *S. apiospermum* in Acquired Immune Deficiency Syndrome patient.^[4] Otitis media and externa by *S. apiospermum* was reported in an immunocompetent woman who had symptoms of chronic mastoiditis and otorrhea.^[5] Braz *et al* reported only one case of *S. apiospermum* otitis externa, in their six year retrospective study on otomycosis.^[6] In the present case the patient was a chronic alcoholic and was suffering from right sided chronic otitis media. The ENT Surgeon is planning a mastoid exploration. Most probably, this might be to find out whether there is otitis interna and mastoid bone involvement. Early diagnosis is very much important especially in case of

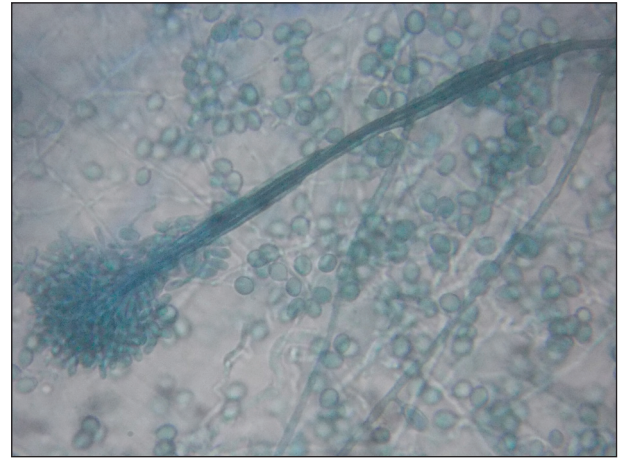


Figure 2: *Graphium synnemata* and unicellular sub globose conidia

S. apiospermum otitis externa because most case reports of *S. apiospermum* brain abscess in immunocompetent patients have documented CSOM to be the risk factor.^[2,7]

The present case highlights the importance of early diagnosis of *S. apiospermum* otomycosis as it can lead to serious central nervous complication as brain abscess.

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