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Case Report

Ear Nose and Throat Section

# Rhinosporidiosis: A Chronic Tropical Disease in Lateral Pharyngeal Wall

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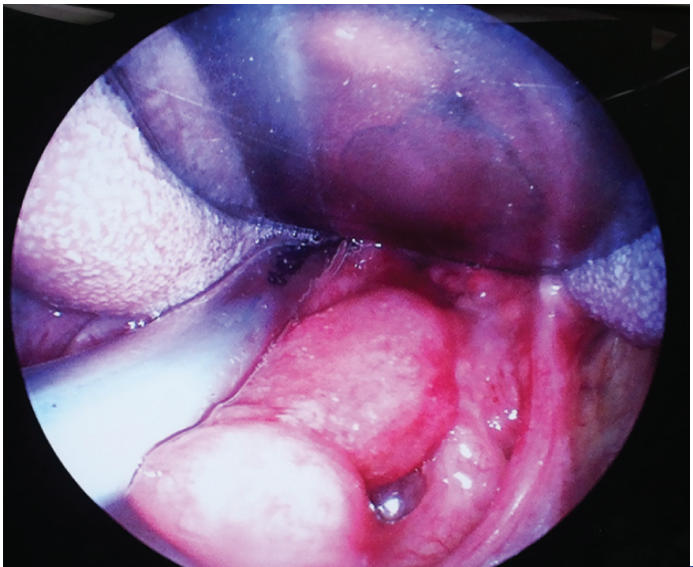
## ABSTRACT

Rhinosporidiosis is a chronic granulomatous disease caused by *Rhinosporidium seeberi*. It predominantly affects the mucous membranes of the nose and the nasopharynx. Clinically the lesion presents as a pink or red pedunculated polyp in one or both nostrils. Diagnosis can be made by aspiration cytology and examination with May-Grunwald-Giemsa, hematoxylin and eosin, Periodic acid-Schiff and mucicarmine staining. Definitive diagnosis is by histopathology of the specimen. We report a case of Rhinosporidiosis at the lateral pharyngeal wall which is a very rare site for Rhinosporidiosis to occur; was treated by diathermy excision of the mass and cauterization of the base and oral Dapsone to prevent recurrence of the disease.

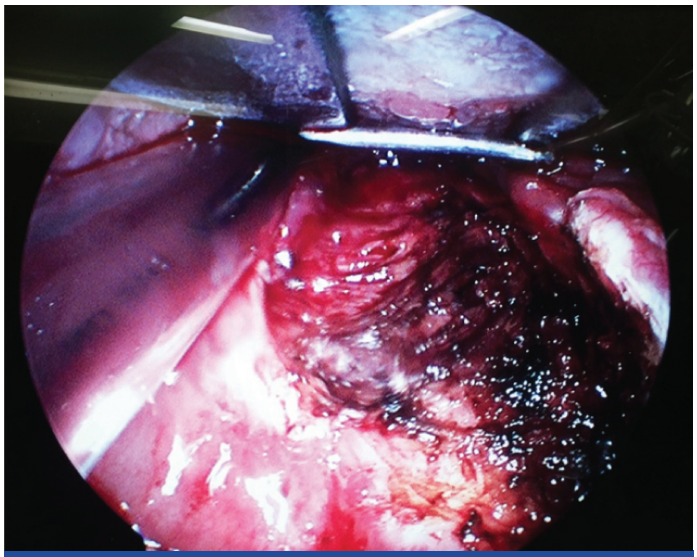
**Keywords:** Mucous membranes, Pedunculated polyp, *Rhinosporidium seeberi*

## CASE REPORT

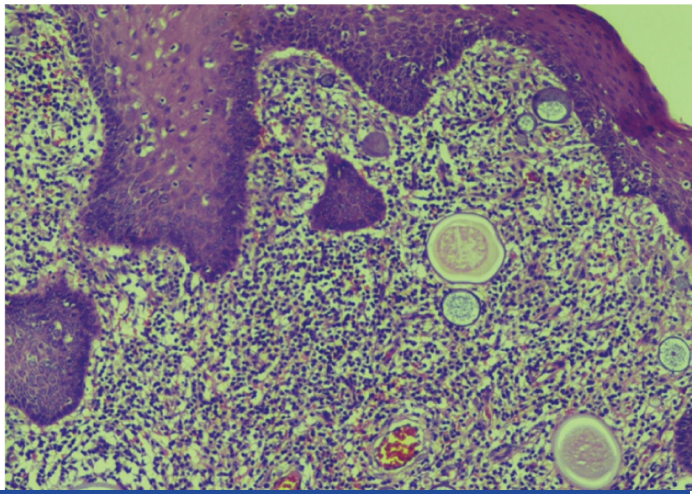
A 64-year-old male patient presented to the otorhinolaryngology outpatient department with foreign body sensation in the throat for about two months of duration. He also gave a history of intermittent episodes of cough on swallowing solids and liquids. There was no history of breathing difficulty, change of voice, hemoptysis or nasal complaints. Oral cavity and oropharynx examinations were within normal limits. On 70 degree endoscopic examination of the laryngopharynx a 5×3cm, pinkish polypoidal, pedunculated mass with white dots over the surface of the mass was seen arising from the right lateral pharyngeal wall [Table/Fig-1] at the level of pharyngo epiglottic fold. Rest of the laryngopharynx was within normal limits. Diagnostic nasal and nasopharyngeal endoscopies were normal. Clinically we made a differential diagnosis as rhinosporidiosis of lateral pharyngeal wall, mucus retention cyst and malignancy of supraglottis. Patient was posted for transoral excision of the mass under general anaesthesia. Using Boyle-Davis Mouth gag mouth was fully opened and the mass was visualized completely. Findings were similar to the endoscopy. Wide excision of the pedunculated mass was carried out and the base was cauterized [Table/Fig-2]. Excised specimen was sent for histopathological examination to confirm the clinical diagnosis [Table/Fig-3]. The specimen on gross examination was soft, polypoidal, pink in



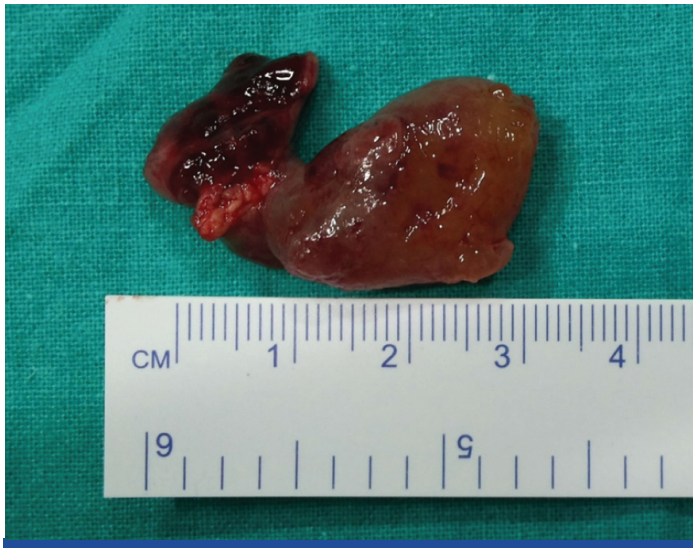
**[Table/Fig-1]:** Intra operative view of pedunculated, polypoidal mass from right lateral pharyngeal wall



**[Table/Fig-2]:** Lateral pharyngeal wall after removal of mass with diathermy and cauterization of base



**[Table/Fig-3]:** Histopathological examination of section with hematoxylin and eosin showed polypoidal tissue lined by stratified squamous epithelium with sporangia containing innumerable sporangio spores. Subepithelium showed inflammatory infiltrate composed of lymphocytes, plasma cells and mixed with eosinophils (40X)




**[Table/Fig-4]:** Gross appearance of resected specimen showing pedenculated mass along with its base

colour and measured 3 × 1.5 × 0.5cm [Table/Fig-4]. Patient was put on Ryle's tube feeding for three days and then discharged. Histopathological examination of section showed polypoidal tissue lined by stratified squamous epithelium with sporangia containing innumerable sporangiospores. Subepithelium showed inflammatory infiltrate composed of lymphocytes, plasma cells and mixed with eosinophils. These changes were characteristic of rhinosporidiosis. Patient was recalled after one week and started on oral Dapsone 100mg twice daily for 6 months duration. Patient was on regular follow up for one year to know the recurrence at the operated and other sites.

## DISCUSSION

Rhinosporidiosis is a chronic granulomatous disease caused by Rhinosporidium seeberi [1]. In 1892; Seeber first described it in an individual from Argentina [2]. Disease is endemic in Southern India, Sri Lanka and areas of African continent [3,4]. It is an aquatic protistan parasite in taxonomic classification and currently included in a new class the Mesomycetozoea [5]. It is most common in the age group of 12-40 years with male preponderance [6]. Mode of spread is through stagnant water pools where animals also bath [7].Rhinosporidiosis mainly involves the mucous membranes of the nose and the nasopharynx; it also occasionally involves the other parts of the body; such as oral cavity (lips, palate, uvula), eye (conjunctiva, lacrimal sac), endolarynx, lower respiratory tracts, scalp, skin and genital mucosa (penis, vulva, vagina). Floor of the nose and inferior turbinate are the most common sites. Water and soil are believed to be the reservoir of infection, given the increased incidence of disease found in sand workers, paddy cultivators, and people bathing in stagnant muddy waters [8]. Our patient works at paddy fields since 10 years from where he might have got the infection. Nasal disease usually present as unilateral nasal obstruction or epistaxis. Other symptoms may include local pruritus, coryza with sneezing, rhinorrhea, and postnasal drip. Very rarely symptoms like foreign body sensation in the throat or nose may be the presenting feature like in our case. Clinically the lesion presents as a swollen, pink or red, sessile or pedunculated polyps and are often described as strawberry like in appearance with whitish dots over the surface due to sporangia in one or both nostrils and elsewhere mucosa [9]. Endoscopic examination of the throat in our patient showed similar findings of the mass present over the pharynx. Rhinosporidiosis arising from the lateral pharyngeal wall is very rare. Earlier reported by Halve A et al., [6] also had similar findings in his patient. Diagnosis of the disease can be made by aspiration cytology and examination with fungal stains such as Gomori's methanamine silver, Periodic acid-Schiff and Hematoxylin and Eosin [10]. However, a definitive diagnosis is by histopathology. Treatment of rhinosporidiosis is challenging. Spontaneous remission can rarely occur, however treatment should be started at the earliest after the diagnosis. Diathermy excision is the treatment of choice [11]. Recurrences can be reduced by oral Dapsone therapy for few months and also some anti-fungals such as Griseofulvin and Amphotericin B [8,12].

## CONCLUSION

Rhinosporidiosis although rarely encountered in the lateral paharyngeal wall, is one of the extranasal sites of infection and a pinkish, soft, fleshy, pedunculated mass in the pharyngeal wall one should always have a diagnosis of rhinoporidiosis in the back of the mind especially in endemic areas. Patients have to be instructed about the recurrence of the disease and on regular follow ups.

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