

A Case of Recurrent Nasal Rhinosporidiosis from Chennai, South India

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Abstract: Rhinosporidiosis is a chronic granulomatous disease characterised by polypoidal lesions of the mucous membrane. Earlier, the disease was more prevalent in the Indian subcontinent, but in the recent era, the incidence of rhinosporidiosis is significantly reduced except for a few recurrent cases. We hereby present a case of recurrent of nasal rhinosporidiosis after initial surgical excision. The patient presented with a polypoidal, erythematous mass in the right nasal cavity for the past 2 years with complaints of nasal blockage, seropurulent discharge and occasional bleeding. Diagnosis was confirmed by nasal endoscopy and microbiological examination and was successfully treated by complete surgical excision, followed by regular check-ups.

Keywords: Recurrent, rhinosporidiosis, polypoidal mass, surgical excision

1. Introduction

Rhinosporidiosis, a localised chronic granulomatous disease, is caused by *Rhinosporidium seeberi* and endemic in several parts of India. It typically manifests as vascular polyps that arise from the upper respiratory tract [1]. The disease is commonly found in the anterior nares, the inferior turbinates, septum and floor of the nasal cavity; however, it can also affect extra nasal sites including the orbit, ocular, oral cavity, trachea and uvula. Lesions involving other regions of the body such as the brain, trachea, ear, skin and subcutaneous tissues have been reported but are quite uncommon [2]. The disease progresses with local replication, results in hyperplastic growth of host tissue and the only definite treatment is surgical excision [1]. Previously, nasal rhinosporidiosis was endemic in India but in recent times, sporadic cases are reported mostly as recurrent forms and disease burden has decreased drastically as per clinician's experience [2, 3]. Here, we report a case of recurrent polypoid nasal rhinosporidiosis in Chennai, South India.

2. Case Report

A 40 year old male presented with the history of a recurrent mass in the right nasal cavity for the past 2 years. The patient also had complaints of nasal blockage, seropurulent discharge and occasional bleeding from the right nasal cavity. He had a similar history/complaint past four years back and was operated for the same at Pudukottai Government Hospital, Tamil Nadu, India. He also had the practice of taking baths in ponds in Pudukottai, his native, which is known for the mode of acquisition of rhinosporidiosis. No other significance was noted in his past history. His general examination of ear and throat was found to be normal. Local examination of the right nasal cavity revealed a polypoidal, erythematous mass with whitish dots

obstructing 3/4th of the nasal cavity. After obtaining an informed consent from the patient, nasal endoscopic surgery was performed to remove the mass under general anesthesia. Upon endoscopy, the polypoidal mass was found attached to right side of the nasal septum with a small pedicle [Figure 1]. The mass was biopsied and sent for microbiological examination. Excision of the mass was done and complete hemostasis was obtained. The excised mass weighed 4 grams, measured a maximum diameter of 2.5 cm, pink colour with a fleshy consistency and whitish spots on its surface. On microbiological examination by KOH mount, the lesion showed the characteristic features of rhinosporidiosis, containing numerous globular cysts. Each of these cysts represented a thick-walled sporangium containing numerous endospores [Figure 2]. The left nasal cavity was found to be normal and the post-operative period was uneventful. The patient was reviewed once every two weeks till date, was found to be normal and had not shown any recurrences after seven months of excision [Figure 3].

3. Discussion

Previous reports have documented that rhinosporidiosis is commonly found in South India with a very high incidence in Tamil Nadu, West Bengal and Central India [3]. Our hospital being in Chennai, the incidence of rhinosporidiosis is significantly reduced except for few recurrent cases. The present case involving recurrence of nasal rhinosporidiosis after four years of initial surgery was excised in our hospital and has not shown any recurrent episodes of the disease. Many hypotheses have proven the mode of transmission of *Rhinosporidium seeberi* to be based on the finding of this protistan parasite in rivers and ponds, [4] where patients with rhinosporidiosis used to bathe, and the same was observed in our case, which could be the possible reason for acquisition of infection. Systematic dapsone may be prescribed for 1 year to prevent recurrence, as its mechanism

has shown to arrest the maturation of sporangia and promote fibrosis in stroma. **Josue Chery**, et al. showed that surgical excision plays a key role in the lack of recurrence in spite of patient's non-adherence to postoperative dapsone treatment [1]. In this study, we recognized a recurrent case of nasal rhinosporidiosis and the patient was found to be normal till date without any medical treatment. To conclude, health professionals and microbiologists must have greater awareness of rhinosporidiosis and its recurrence. Identified cases should be monitored to leave out the possibility of recurrence, and to decide the best treatment for the disease, which will lead to complete reduction and possible eradication.

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6. Conflict of Interest

The authors claim no conflict of interest.

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Figure legends

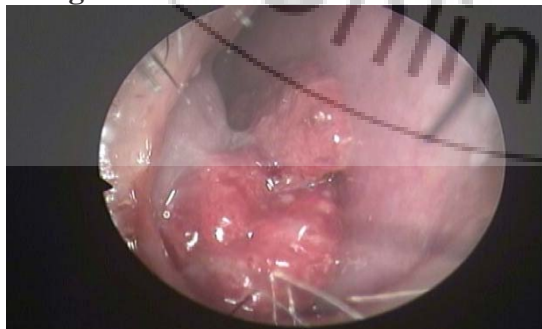


Figure 1: Nasal endoscopy: local examination of the nasal cavity on right side reveals a polypoidal, erythematous mass with whitish dots obstructing 3/4th of the nasal cavity.

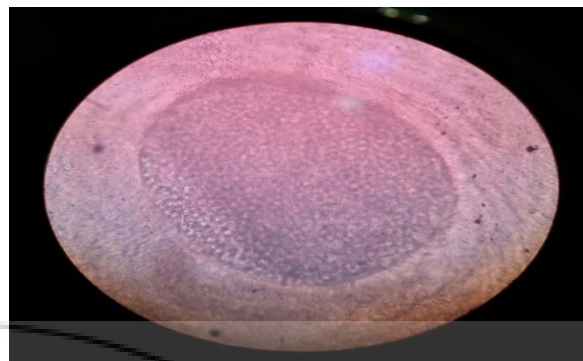


Figure 2: KOH mount: Globular cysts represented a thick-walled sporangium containing numerous endospores.

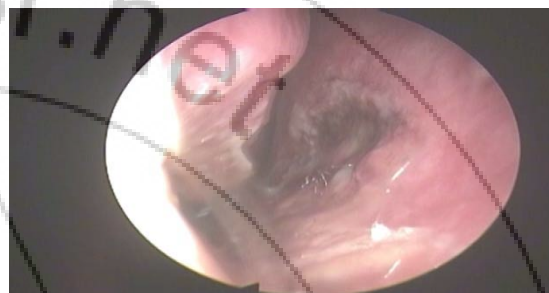


Figure 3: Post operative endoscopic examination of right nasal cavity showing complete removal of the mass.

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