

## Original Article

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# A clinicopathological study of Rhinosporidiosis

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### Abstract

*Introduction: Rhinosporidiosis is one of the common tropical diseases in ENT practice in this subcontinent having the affinity for the mucosa of upper respiratory tract –chiefly the nose & nasopharynx. Though this chronic granulomatous disease is quite common in this subcontinent but its distribution is not even.*

*Objectives: The aim of this study is to find out the age distribution, clinical sign-symptoms & attachment of rhinosporidiosis, that's mean to establish the clinical profile of the patient.*

*Method: A cross sectional study was done at the department of ENT & HNS, Sir Salimullah Medical College Mitford Hospital from January to December 2012. The study included 49 patients treated in this department and histologically proved.*

*Results: Among 49 patients there was male predominance(37), female were-12. Majority of the patient presented with the feature of nasal obstruction(27), nasal mass(23) and it's majority site of attachment was nasal septum(30). In anatomical site distribution majority cases(39) it was distributed in nose & nasopharynx.*

*Conclusion: This study suggests total excision, wide base cauterization and regular follow up to prevent recurrence.*

**Key words:** Rhinosporidiosis, granulomatous, nasopharynx

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### Introduction

Rhinosporidiosis is one of the common tropical diseases in ENT practice in this subcontinent having the affinity for the mucosa of upper respiratory tract- chiefly the nose and nasopharynx. It was initially described by Seeber in 1990 in an individual from Argentina. The etiological agent of rhinosporidiosis is *Rhinosporidium seeberi*. The causative pathogen is widely deemed to be a Fungus though its precise taxonomy remains instinct. This disorder exhibits no racial predilection although its pattern displays male gender predominance. In this sub-continent, its distribution is not even, though it is a common chronic granulomatous disease. The present study was conducted

in the Department of ENT of Sir Salimullah Medical College & Mitford Hospital, Dhaka, to establish clinical profile of the patients.

### Methods

A cross sectional study was done among 49 patients treated in the department of ENT&HNS of Sir Salimullah Medical College & Mitford Hospital, Dhaka, between January 2012- December-2012. All of the cases were proven histologically. A detailed history was taken and a thorough clinical examination was performed in all patients. The data have been presented in tables.

### Results

In this study it was found that males were predominantly affected than females (Male-37 and Female-12, ratio- 3.08: 1).

**Table-I**  
*Age distribution of the patients*

Age group	Number of patients
0-10	3
11-20	13
21-30	17
31-40	8
41-50	4
51 and above	4

**Table-II**  
*Presenting symptoms (n= 49)*

Symptoms	Number of patients
Nasal obstruction	27
Nasal mass	23
Epistaxis	7
Mass in oral cavity	1
Change of voice	1

Table-II shows that majority of patients presented with the feature of nasal obstruction (27; 55.10%) and nasal mass (23; 46.9%) out of 49 patients. Mass in oral cavity and change in voice were less common.

**Table-III**

*Anatomical distribution of Rhinosporidiosis*

Anatomical sites	Number of patients
Nose and nasopharynx	39
Oral cavity	5
Oropharynx and tonsil	4
Soft palate and uvula	3
Uvula only	1
Epiglottis, larynx and	1
Trachea	1
hypopharynx	

Table-III shows anatomical distribution of rhinosporidiosis revealing the fact that nose and nasopharynx are the commonest site of rhinosporidial infection.

**Table-IV**

*Site of attachment of Rhinosporidial mass in nose and nasopharynx*

Site of attachment	Number of patients	Percentage (%)
Nasal septum	30	61.2
Inferior turbinate	09	18.36
Septal spur and adjoining floor of nose	07	14.28
Nasopharyngeal	01	2.04
Ethmoido-nasopharyngeal	01	2.04
Naso-nasopharyngeal	01	2.04
with multiple attachments		
Total	49	100%

Table-IV depicts that nasal septum is the most frequently (30, 61.2%) affected site of rhinosporidial attachment.

### Discussion

The present investigation showed that 1% of the total cases admission in the Department of ENT at SSMCMH presented with rhinosporidiosis.

It was found that the disease commonly occurs in the 2<sup>nd</sup> and 3<sup>rd</sup> decades of life (the youngest case was a 8 years old child and the oldest one was 66 years), which was similar to Satyanarayana (1960), who also described the prevalence of the disease in the same decades of life and observed low incidence in children and old age<sup>1</sup>. However, recent outbreak of epidemic of rhinosporidiosis in Europe showed that all patients were in the age range 6-16 years, which was dissimilar with our study<sup>2</sup>. Rhinosporidiosis is predominant in male and similar findings have been reported by Lakshman and Kameswaran (1975) where male: female ratio was about 2:1<sup>3</sup>. The ratio was around 3.08:1 in the present study.

The usual presenting symptoms when it is located in the nasal cavity are nasal obstruction, nasal discharge and epistaxis. Sometimes epistaxis may be the only symptom<sup>4, 5</sup>. However, in our study most of the patients presented with nasal obstruction and nasal mass rather than epistaxis which was similar with the findings of Iqbal and Dani<sup>6</sup>. Predominant site of rhinosporidiosis is nose and nasopharynx and the present study showed involvement of these areas in 80% of cases.

Kameshwaran and Lakshman (1975) classified Rhinosporidial lesion in three types (1) Nasal, (2) Nasopharyngeal and (3) Mixed type, which include ethmoido-nasopharyngeal and naso-nasopharyngeal lesions<sup>3</sup>. In this study, we found nasal lesion in 39 cases and the site of attachment was in nasal septum, floor and inferior turbinate. Primary

nasopharyngeal, ethmoido-nasopharyngeal and naso-nasopharyngeal attachment were observed in single cases.

In the present study, nose and nasopharyngeal lesions were closely monitored by nasoendoscopy to detect any early recurrence. Recurrences were noted in 2 patients (4.08%) within 6 months.

### Conclusion

Rhinosporidiosis is a chronic granulomatous disease that can affect at any age though the predominance of the disease was noted in the second and third decades of life. Male patients are mostly affected by rhinosporidiosis. Nose and nasopharynx are the most common sites of rhinosporidial infection. Endoscopic guided removal and follow-up is not only suggested for complete removal of the lesion, but also detect early recurrence, so that, proper treatment of nose and nasopharyngeal rhinosporidiosis can be ensured.

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