PHARYNGEAL RHINOSPORIDIOSIS: A CASE REPORT

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ABSTRACT: Rhinosporidiosis is a chronic infestation by the fungus Rhinosporidium seeberi, which predominantly affects the mucus membrane of the nose and nasopharynx. We report a case of symptomatic extranasal pharyngeal polyp caused due to Rhinosporidium seeberi infection without the involvement of nasal mucosa.

KEYWORDS: Pharyngeal polyp, Rhinosporidiosis, Rhinosporidium seeberi.

INTRODUCTION: Infective Pharyngeal polyposis is a relatively rare clinical condition. Rhinosporidiosis is an infective disease caused by the organism Rhinosporidium seeberi affecting nasal mucosa. Nose is the most common site of rhinosporidiosis affecting in more than 70% cases. The commonly affected age group is 15-40 years, with Male: Female ratio of 4:1. Although there is no effective antibiotic therapy, surgical excision of the polyps is often successful in treating the disease. Nasal Rhinosporidiosis is also seen affecting pharynx. It is most prevalent in southern India, Sri Lanka and Southeast Asia, although cases have been reported in South America, Africa and U.S.

CASE REPORT: A 37years male patient presented with sensation of mass in throat since 3-4months and intermittent difficulty in breathing since 15-20 days and difficulty in swallowing for both solids and liquids since 4 days.

On IDL examination grayish black pedunculated, freely moving, polypoidal mass seen arising from left wall of Pharynx. On oral examination same mass is seen (Fig. 1). Vocal cords were not visible. On anterior rhinoscopy bilateral nasal cavities appeared normal and nasopharynx on posterior rhinoscopy was normal. No any lymphoidal involvement was present.



Fig. 1: Oral examination showing grayish black pedunculated mass (arrow)

Patient was then posted for direct laryngoscopy and pedunculated polypoidal mass arising from left lateral wall of pharynx was seen (fig. 2).



Fig. 2: Direct laryngoscopy showing pedunculated polypoidal mass from Left lateral wall of pharynx.

Excision of the pedunculated mass was done under GA. Excised specimen was sent for histopathological examination.



Fig. 3: Intraoperative surgical excision- clinical photos

The specimen on gross examination was soft, polypoidal, friable and pink in color with white spots on the surface. Histopathological examination of tissue sections stained with Hematoxylin and eosin showed a surface of stratified squamous epithelium. The sub epithelium showed many globular cysts. Each of these cysts contains numerous "daughter spores" in different stages of development. The fibrous connective stroma showed fibroblasts and an inflammatory infiltrate consisting of polymorphs and eosinophils. These changes were characteristics of rhinosporidiosis.



DISCUSSION: Rhinosporidiosis is a common chronic granulomatous infection that affects nasal mucosa, ocular conjunctiva and other mucosa in the body. However, extra nasal affection in pharynx in absence of nasal affection is rare hence a reason for this presentation.

Etiological agent: Rhinosporidiosis is first described in 1900 by Guillermo Seeber. It generally presents as swollen, pink or red polyps in the nasal cavity or the ocular conjunctivae ⁵. It is caused by the organism Rhinosporidium seeberi. Infection generally occurs after swimming in stagnant freshwater ponds, lakes or rivers, but is also suspected to occur from dust or air.

R. seeberi has a worldwide distribution with a proclivity for warm, tropical environments.

In the tissues, the organism forms characteristic abundant, large thick walled sporangium like structures containing large number of endospores.

Recently, sequencing of 18S subunit of rDNA sequence from R. seeberi has led to its recent reclassification as a member of protozoan Mesomycetozoa¹. Attempts to isolate R. seeberi in culture have failed and thus far it has not been recovered from an environmental source.

Epidemiology: Disease is most common in southern India and Sri Lanka but sporadic cases have been reported from East Africa, central and South America, East Asia and other parts of the world^{2, 3, 4}. stagnant pools of fresh water are important source of infection. The disease is most prevalent in rural districts, among persons bathing in public ponds or working in stagnant water such as rice fields. Rhinosporidiosis is most common in age group of 12-40yrs with male preponderance.

Clinical manifestations: Nose is the most common site of Rhinosporidiosis, being affected in more than 70% cases.

It generally presents as swollen, pink or red sessile or pedunculated polyps in one or both nostrils and conjunctiva. Oropharynx, nasopharynx, urethra are other uncommon sites of Rhinosporidiosis.⁶

Infection is insidious in onset. Spontaneous remission is unusual and left untreated, the polyps will continue to enlarge.

DIAGNOSIS: Diagnosis is made by identifying the typical structures of R seeberi directly on microscopic examination. This includes examination of smears of macerated tissue or histology of prepared biopsy sample sections.

The organism can be observed with typical fungal stains (eg, Gomorimethenamine silver [GMS], periodic acid-Schiff [PAS]), as well as with standard hematoxylin and eosin (H & E) staining. Smears can also be observed with potassium chloride (KOH) preparation. It is established by histopathological examination of tissue sections. These contain large, round or oval sporangia up to 350µm in diameter with a thick wall and an operculum. The largest sporangia are filled with spores.

Management options: Treatment of choice is surgical excision of lesions with or without cauterization. However, multiple reports of successful treatment of individuals with long courses of dapsone have been published.^{7, 8} This drug may be useful in individuals with multisite disease.

Outcomes and complications: Recurrence is common and patients should be followed up if possible.

CONCLUSION: Extranasal site of affection though not common must be kept in mind during management of pharyngeal lesion presenting as emergency as a result of sizable obstruction to both air and food passages.

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