

A rare case of nasopharyngeal rhinosporidiosis

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Abstract :

Rhinosporidiosis is a chronic infestation by the fungus *Rhinosporidium seeberi*. It predominantly affects the mucous membrane of nose and nasopharynx. It is endemic in southern states of India, Pakistan and Srilanka. Epistaxis is often the only symptom in rhinosporidiosis, but in early stages, patient may complain of nasal obstruction and blood tinged nasal discharge. Dissemination of spores to surrounding areas leads to spread of the disease. Here we report a patient with Nasopharyngeal Rhinosporidiosis, who presented with a mass hanging in the oropharynx. Patient recovered completely after excision of mass.

Keywords: Rhinosporidiosis, Oropharynx, Epistaxis, Sporangia.

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Introduction:

Rhinosporidiosis is a fungal granuloma of mucous membrane caused by *Rhinosporidium seeberi* (R seeberi). Nasal obstruction and epistaxis are the common presenting symptoms of the patient. Sometimes, frank epistaxis may cause anxiety in patients. The lesions are friable, polypoidal mass resembling a strawberry colour with white dots, which bleed on touch. They arise primarily in the vestibule and are usually attached to the nasal septum, but may grow backwards into the nasopharynx and down into the oropharynx. Here we are presenting a patient whose nasal cavity was absolutely normal, but there was a polypoidal mass hanging behind the soft palate in the oropharynx. The mass was causing difficulty in breathing to the patient and change in voice. We treated this patient by completely excising the mass and cauterizing its base. The patient is under followup.

Case History :

A 35-year-old male from Madhya Pradesh attended the ENT outpatient department with a history of mass hanging in the throat of one month duration associated with nasal obstruction and change of voice since same duration. He had no episode of epistaxis. On anterior rhinoscopy, his nasal cavity on both sides was normal except deviated nasal septum towards left. On examination of throat, we could see a reddish polypoidal mass behind the soft palate hanging in the oropharynx (Figure 1). The surface of the mass was irregular with rounded margin. The under surface was studded with white dots. The mass didn't bleed on touch. Computed tomography of nose and paranasal sinuses of this patient revealed the mass attached to soft palate and medial pterygoid plate on left side and hanging freely in the oropharynx.

Diagnostic nasal endoscopy revealed that the mass was arising from the soft palate just behind the posterior choana on left side, blocking the nasopharynx and hanging in the oropharynx. The undersurface of the mass was showing white spots. With these clinical, radiological and endoscopic findings, it was provisionally diagnosed as a case of rhinosporidiasis. Complete surgical excision of the mass was done perorally with diathermy knife and the base was

cauterized. His postoperative period was uneventful. Microscopic examination confirmed the diagnosis of Rhinosporidiosis. Patient is under followup and is free from recurrence.

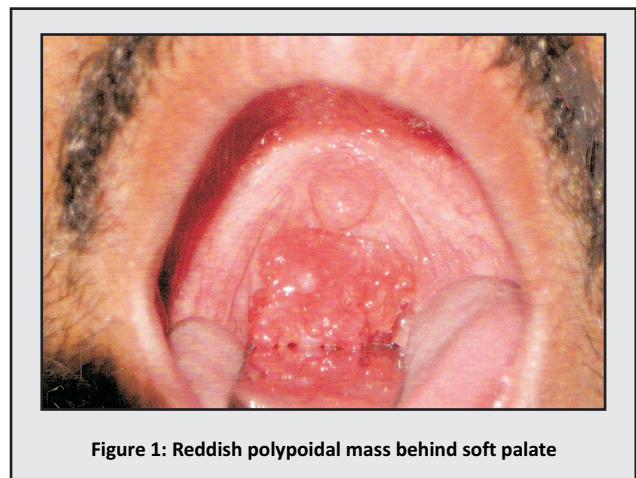


Figure 1: Reddish polypoidal mass behind soft palate

Discussion:

Rhinosporidiosis is a chronic infestation by the fungus *R seeberi*. The unique round structures histologically diagnostic of rhinosporidiasis were first described by Seeber (1990) as a protozoon(1), later by Ashworth as a sporangium of a fungus (2), hence designated "*Rhinosporidium Seeberi*". The organism grows better in hot, tropical climate. The disease is commonly seen in coastal regions of India, Srilanka and Pakistan(3). It predominantly affects the mucous membrane of nose and nasopharynx, but other sites such as lip, palate, conjunctiva, lacrimal sac, epiglottis, larynx, trachea, bronchi, ear, skin, vulva, vagina, penis may also be affected. Osteolytic lesions in the bones of hands and feet have been reported (4). The disease is acquired through contaminated water of ponds also frequented by animals and also by dust from the dung of infected horses and cattle.

It is four times common in males of age group between 10 to 40 years (5). Epistaxis is often the only presenting complaint, but in early stages there is nasal obstruction which

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increases gradually. The lesion is friable, leafy, polypoidal, pink to purple in colour, with irregular surface and rounded margins. The undersurface is grayish studded with white dots. It arises primarily in the vestibule, usually attached to the nasal septum or floor of the nose or inferior turbinate(6). Histological examination of the mass reveals characteristic appearance of sporangia, oval or round in shape filled with spores which may be seen bursting through its chitinous walls(7). Rhinosporidiosis is most successfully treated by wide excision of the mass with a cutting diathermy and cautery to the base of the lesion. Recurrence (10%) may occur after surgical excision. Medical treatment in the form of local injection of depot corticosteroids into the polypoidal masses and systemic courses of amphotericin (fungizone) and dapsone may be given in addition(8,9). At present, there are no data on the development of resistance in *R. seeberi* to dapsone (10). Kutty and Teh (11) found amphotericin B to have caused arrest of the development of the pathogen, preventing the recurrence of disease during a three year followup period, and ultrastructural damage to *R. seeberi* was marked. Topical amphotericin B on corneal and nasal rhinosporidiosis have been found to be successful (12), however, Ho and Tay (13) found the intravenous drug to be ineffective in the treatment of disseminated rhinosporidiosis. In view of the danger of dissemination of *R. seeberi*, especially after surgery, with extensive histolysis of soft tissues including bone and cartilage, it can be considered advisable to commence medications, however, small the original lesion appears to be. Medications can be started even before surgery. The prevention of the spread of overt ocular rhinosporidiosis to the contralateral eye by dapsone has been recorded(14). In this case, patient presented with a mass arising from the nasopharynx and hanging in the oropharynx without any nasal mass and without any history of epistaxis, which is an uncommon presentation as rhinosporidiosis usually presents with a bleeding polypoidal nasal mass.

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