DISSEMINATED RHINOSPORIDIOSIS-A RARE CASE REPORT

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ABSTRACT
Rhinosporidiosis is a locally aggressive chronic granulomatous disease with history of recurrence. It usually involves mucous membrane of nose and nasopharynx. Rarely conjunctiva, palate, larynx, trachea, bronchus and skin are involved. Here we are presenting an interesting case of Naso-Tracheo-Conjunctival Rhinosporidiosis.

Key Words: Disseminated Rhinosporidiosis, Nasal, Tracheal, Conjunctival, Cutaneous lesions

INTRODUCTION
Rhinosporidiosis a chronic granulomatous infection of the mucous membranes usually manifesting as vascular friable mass from the nasal mucosa caused by Rhinosporidium seeberi. Some authors have also postulated cyanobacterium, Microcystis aeruginosa as the principal causative organism, which is yet to be proven. 70% of patients present with nasopharyngeal mass and 15% with palpebral conjunctival lesion. Occasionally Rhinosporidiosis can affect lips, palate, uvula, maxillary antrum, epiglottis, larynx, trachea, bronchus, ear, scalp, vulva, vagina, penis, rectum and the skin. Generalized or disseminated rhinosporidiosis is a rare entity and only three cases have been reported. Here, we are reporting a case of 70 year old man with disseminated rhinosporidiosis.

CASES
A 70 years old man presented to us with a reddish bilateral nasal mass for 30 years duration. He gives history of surgical excision for the same complaint 17-18 times as it was recurrent. He also gives history of skin and eye lesions. Examination revealed an irregular reddish mass occupying both nasal cavity which bleeds on touch (Figure-1) and similar lesion in the right palpebral conjunctiva (Figure-2).

Figure 1: Nasal Mass
Figure 2: Conjunctival Lesion
Case Report

Indirect laryngoscopy examination was done as the patient complains of difficulty in breathing, revealed an irregular reddish mass occupying the right posterior aspect of vocal cord and arytenoids (Figure 3). Fibre-optic bronchoscopy revealed the sub-glottic extension of the laryngeal mass and an irregular pedunculated reddish mass arising just above the carina and extending in to right main bronchus (Figure 4).

![Figure 3: Laryngeal Lesion](image1)
![Figure 4: Tracheal Lesion](image2)

Patient also had multiple cutaneous lesions (Figure 5). Based on all these findings a diagnosis of disseminated Rhinosporidiosis was made. With proper pre-anesthetic evaluation, nasal and laryngotracheal masses removed in staged surgeries. Nasal and nasopharyngeal mass was excised and base was cauterized under general anesthesia with one lung ventilation by using modified endotracheal tube in stage one surgery. In second stage surgery by using same modified endotracheal tube and one lung ventilation laryngeal and tracheal masses were removed using a rigid bronchoscope. Conjunctival lesion was removed with ophthalmologist’s help. Histopathological examination of the mass reveals numerous globular cysts of varying shapes representing sporangia of different stages of development suggestive of rhinosporidiosis (Figure 6).

![Figure 5: Cutaneous Lesion](image3)
![Figure6: Histopathology](image4)
DISCUSSION

Rhinosporidiosis is a rare chronic granulomatous disease seen in hot, dry climatic regions and majority of cases are sporadic. It is more commonly seen in men than in women. The common mode of transmission is from the natural aquatic habitat through traumatized nasal mucosa and rarely via mucosa of external urethral meatus, the conjunctiva or skin. Laryngeal and tracheal transmission is always iatrogenic. Frequent bathing in ponds & lakes filled with stagnant water in endemic areas has been considered as a major risk factor. The disease progresses with the local replication of Microcystis aeruginosa & associated hyperplastic growth of host tissue and a localized immune response. Microcystis aeruginosa can cause infections of the nose, throat, ear, eye & its adnexa & even in the genitalia of both sexes. The majority of cases occur in upper respiratory tract, notably the nasal cavity, nasopharynx, soft palate & buccal cavity. Clinically, nasal rhinosporidiosis presents as a friable vascularised polypoid mass that may be pedunculated or sessile. The surface is covered with tiny white spots consistent with underlying sporangia beneath the epithelium which bleeds easily upon manipulation. The gross appearance has to be differentiated from other vascularised polypoidal nasal lesions. Definitive diagnosis requires histopathological examination. The treatment for rhinosporidosis consists of surgical excision followed by cautery of the base. The potential for recurrence is due to spillage of endospores on adjacent traumatized mucosa. Recurrence can be prevented by cautery of base of the lesion or cryotherapy. Medical therapy is still controversial. Dapsone is the only drug that has some success in treating Rhinosporidiosis. It acts by arresting the maturation of sporangia and accelerating their degenerative changes. Rhinosporidiosis is a chronic disease that can exist in the body for decades without causing major debility. Recurrence is a major problem, with most patients requiring multiple surgical excisions for growth removal. There is no apparent immunity developed against this disease.

CONCLUSION

Disseminated rhinosporidiosis is a very rarely reported disease, which has to be considered in patients from endemic areas presenting with polypoidal mass which bleeds on touch. Laryngo-tracheal Rhinosporidiosis is always due to iatrogenic cause and patients with recurrence should always undergo a thorough and complete examination using flexible nasopharyngoscope and flexible bronchoscope to rule out laryngo-tracheal dissemination.

REFERENCES