CASE REPORT

LARYNGEAL RHINOSPORIDIOSIS – AN UNUSUAL CAUSE OF HOARSENESS

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ABSTRACT: Rhinosporidiosis is a chronic infection caused by an organism called *Rhinosporidium seeberi*. It primarily affects the mucous membrane of the nose & nasopharynx. Involvement of other mucosal surfaces in the body has been reported but are extremely rare in occurrence. We are presenting a rare case of laryngeal rhinosporidiosis in a 36 year old male who presented with hoarseness of voice and progressive respiratory distress. He had previous history of multiple surgeries for nasal rhinosporidiosis.

INTRODUCTION: A study was performed in our department from June 2009 to May 2011 to enumerate the various benign causes of hoarseness of voice. Among a total of 48 cases that were selected, we have come across a rare case of laryngeal rhinosporidiosis that we present below.

Rhinosporidiosis is a chronic infection caused by an organism called *Rhinosporidiosis seeberi* which is mostly endemic in parts of India & Sri Lanka¹. There has been a long standing confusion regarding the classification of the causative organism. Seeber in 1900 described it as a protozoa² but a couple of decades later it was designated as a fungus³. As recently as 1992, the disease has been described as a metabolic defect leading to the accumulation of lysosomal bodies loaded with indigestible residues⁴. Whatever the etiology, this condition predominantly affects the mucous membrane of the nose and nasopharynx and presents as multiple reddish polypoidal "strawberry-like" masses which are friable and bleed to touch⁵.

Extranasal manifestation of rhinosporidiosis is exceedingly rare⁶. We are reporting a case of a 36 year old male with laryngeal rhinosporidiosis who presented with hoarseness of voice and progressive respiratory distress.

CASE REPORT: A 36 year old male presented in the OPD with the chief complaint of progressive hoarseness of voice for the past one year. There was also an associated gradually worsening respiratory distress for last 4 months. He was a farmer by profession with no history of use of tobacco & alcohol. On enquiry, he produced records of two surgeries in the past for nasal rhinosporidiosis done elsewhere.

On examination, there was slight degree of stridor at rest. The nasal airway was patent. Oropharynx was normal. On indirect laryngoscopy, multiple reddish polypoidal masses were seen arising from the ary-epiglottic folds and upper surface of both vocal cords with evidence of partial airway obstruction. He was counselled regarding the urgent need for surgery and advised routine pre-operative investigations, all of which were within the normal range. Finally after taking consent, he was admitted for microlaryngoscopy under general anesthesia after one week.

Anesthesia was administered using a 6.5 mm cuffed endotracheal tube which was not only easy to negotiate but also allowed more space for the surgery. All the polypoidal material was removed as far as possible to obtain an adequate airway. Local bleeding was controlled using ribbon gauze packing. The obtained material was sent for histo-pathological examination.

CASE REPORT

The post-operative period was uneventful and the patient was discharged after 48 hours. The histo-pathological report showed the characteristic presence of sub-epithelial well circumscribed globular spherules which was consistent with a diagnosis of laryngeal rhinosporidiosis (Fig 1).

Patient was subsequently put on an oral course of dapsone to reduce the chance of local recurrence. Though the improvement of voice was modest, the respiratory distress was completely relieved and he has not shown any sign of recurrence of the disease upto 12 months of follow up.

DISCUSSION: As already mentioned, extranasal involvement of rhinosporidiosis is very uncommon. A thorough review of the available literature reveals that very occasionally other mucosal surfaces like the lips, palate, uvula, maxillary antrum, bronchus, conjunctiva, parotid duct etc. may be affected ^{1, 5, 7}. According to Kumar et al, laryngeal involvement is also quite rare with only 3 such cases reported till 2004 ⁶. A recent reporting in 2010 documents the case of laryngeal rhinosporidiosis in a 32 year old male who also presented with progressive hoarseness of voice for 1 year duration along with associated rhinosporidial masses in both nose ⁸. In all these cases, the mode of laryngeal involvement is probably by seeding of the lower airways from aspiration of infected nasal secretions & blood during previous surgery.

The primary challenge for the surgical team in cases of laryngeal involvement is the control of the airway. If glottic opening is visualised, then conventional intubation with a slightly smaller diameter of endotracheal tube may be done. But if difficult intubation is anticipated due to extensive laryngeal involvement, then the best bet appears to be tele-laryngoscopy guided flexible fiberoptic intubation ⁹. Tracheostomy should definitely be avoided as there will be a high risk of further dissemination of disease with chance of seeding of the spores at the site of the stoma.

REFERENCES:

1. Sivapathasundharam B, Saraswathi T.R, Manjunath K, Sriram G – Rhinosporidiosis of parotid duct. Indian J Dent Res. 2009 Jul – Sept; 20 (3): 388-9.
2. Seeber G. R – Thesis. Universidad Nazionale, Buenos Aires. 1900
3. Ashworth J.H – On Rhinosporidium seeberi with special reference to its sporulation and affinities. Transactions of the Royal Society of Edinburgh. 1923; 53: 301-42.
4. Ahluwalia K.B – New interpretations in rhinosporidiosis. Journal of Submicroscopic Cytology and Pathology. 1992; 24: 109-14.
5. Weir N, Golding-Wood D.G – Scott-Brown's Otolaryngology. 6th Ed. Vol 4. London: Butterworth-Heinemann, 1997; 4/8/39-40.
6. Kumar S, Mathew J, Cherian V, Rosario R, Kurien M – Laryngeal rhinosporidiosis – Report of a rare case. Ear Nose Throat J. 2004 Aug; 83 (8): 568-70.
7. Suh L.H, Barron J, Dubovy S.R, Gaunt M.L, Ledec D.R, Miller D, Fell J.W, Forster R.K – Ocular rhinosporidiosis presenting as chronic follicular conjunctivitis in a contact lens wearer. Arch. Ophthalmol. 2009 Aug; 127 (8): 1076-7.
8. Madana J, Yolmo D, Gopalakrishnan S, Saxena S – Rhinosporidiosis of the upper airways and trachea. J Laryngol Otol. 2010 Oct; 124 (10): 1139-41.

CASE REPORT

9. Mathew J.S, Padhy S, Lata S, Balachander H, Gopalakrishnan S – Case report: Telelaryngoscopy guided flexible fiberoptic intubation for laryngeal rhinosporidiosis. Anesth Analg. 2010 Apr; 110 (4): 1066-8.

Fig. 1:

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