Urethral rhinosporidiosis: Report of two cases

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ABSTRACT
Rhinosporidiosis is a chronic granulomatous mycotic disease of man, characterized by development of polypoid lesions in the nose and nasopharynx. Urethral rhinosporidiosis is very rare. Two cases of urethral rhinosporidiosis are reported here.

Key words: Rhinosporidiosis, urethral, recurrent

Introduction
Rhinosporidiosis is a chronic granulomatous disease caused by Rhinosporidium seeberi. This disease is endemic in India, Sri Lanka, and Africa. The organism usually affects nasal cavity and nasopharynx. Involvement of conjunctiva, larynx, genitalia, rectum, and skin is less common. The report of two cases diagnosed as urethral rhinosporidiosis is given below.

Case Reports
Case 1
A 40-year-old man presented with complaints of a fleshy growth at the urethral orifice. He underwent surgery for a similar growth five years ago with a histopathological diagnosis of Rhinosporidiosis. He was a barber by profession and used to take bath in a nearby pond daily.

The specimen received was a light brown membranous soft tissue measuring 1 x 0.8 x 0.3 cm. Microscopic sections showed a polypoid mass partly lined by transitional epithelium and partly by squamous epithelium. Sub-epithelium showed sporangia filled with spores [Figures 1 and 2].

Case 2
A 60-year-old man presented with a polypoid growth protruding through the urethra. An irregular light brown nodular soft tissue measuring 1 x 0.5 x 0.3 cm was received in the pathology department. Microscopy showed tissue lined by transitional epithelium showing squamous metaplasia. Sub-epithelial region showed multiple sporangia filled with spores. Many empty sporangia were also seen. Surrounding area showed dense lymphoplasmacytic infiltrate.

Discussion
Rhinosporidiosis is a mucosal and cutaneous mycosis caused by Rhinosporidium seeberi. The causative fungal agent is named after G. Seeber who first published a detailed report in 1900. In India, O’ Kinealyi was the first to report such a case in 1894, and it was suggested to name the organism as Rhinosporidiosis Kinealyi.

Infection produces bulky, friable mucosal polyps in the nasal cavity, nasopharynx, and on the palate. Urethral rhinosporidiosis is very rare, and till date, less than 50 cases have been reported. Sasidharan et al did an analysis of 27 cases, which constituted the first series of urethral rhinosporidiosis in Kerala. In a study of 143 cases of rhinosporidiosis in Sri Lanka, only 1 was reported in urethra. Rhinosporidiosis is endemic in some parts of Kerala. Of the 106 cases of rhinosporidiosis received in our institution during a period of two years (2009–2010), 2 cases were seen in the skin, 4 in conjunctiva, 1 in the larynx and 2 in the urethra. The remaining 97 cases were nasal rhinosporidiosis. Infection usually occurs in males, but females are also affected. The source of infection is not known. However, the disease in man in India and Sri Lanka has been associated with swimming and
working in stagnant water, which suggests that water is a natural habitat of *R. seeberi*. Trauma has been reported as a predisposing factor. Frequent bathing in stagnant ponds leading to abrasions caused by sand particles contaminated with the pathogen is one of the causes. Urethral involvement is manifested by a friable, pink, discrete painless polyp protruding from the urethral meatus, although multiple lesions have also been described. Hematuria, intermittent bleeding, discharge, and polypoid growth from the external urethral meatus are the usual modes of presentation. The absence of rhinosporidiosis in the sexual partners of these patients is strong evidence that the disease is neither infectious nor contagious.

Treatment is complete surgical excision with cauterization of the base and surrounding area. Brisk bleeding occurs following removal, and care must be taken so that all the polypoid masses are removed. Cauterization prevents recurrence by destroying submucosal spores and sporangia around the base. Recurrence is common due to:

1. Incomplete removal;
2. sub-mucous presence of spores and sporangia;
3. Multiple sites of involvement (growth denovo) due to submucosal lymphatic spread.

So, if involvement of urethra is encountered, a thorough investigation is required to detect probable multiple lesions. Urethrogram may show the lesion, but urethroscopy is mandatory, by which the whole of the urethra and bladder can be examined and any lesion found can be treated by cauterization. Use of anti-leprotic drug Dapsone and Amphotericin-B after thorough clearance of the lesion and cauterization of the base have been reported to be a successful method of prevention of recurrence.

Multiple lesions extending along the penile urethra pose a problem, as transurethral excision and electrocoagulation may lead to urethral stricture formation. If the lesion recurs or urethral stricture occurs following transurethral excision, the urethra should be laid open, which will facilitate complete excision.

Rhinosporidioisis of nose is a very common condition, but urethral rhinosporidiosis is very rare. Correct diagnosis and necessary treatment should be done to prevent recurrence in cases of urethral rhinosporidiosis.

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**References**
