

Male with Rhinosporidiosis of Urethra: A Case Report

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Abstract:

A 45-year old male presented with a six months history of a polypoidal lesion at external urethral meatus. There was a history of dysuria with bloody discharge from the lesion. The past and personal history was insignificant except for occasional bathing in a water pond. General physical examination and examination of nose, oral cavity and eyes was unremarkable. On local examination, a small red, fleshy, sessile lesion was seen at the external urethral orifice measuring 0.7 x 0.6 x 0.2 cm, clinically resembling a urethral caruncle. Urine routine examination showed presence of red cells. The lesion was completely resected under spinal anaesthesia. Histopathology showed stratified squamous lined tissue which reveals many sporangia containing endospore. Subepithelial region shows granulation tissue and is infiltrated with chronic inflammatory cells suggestive of rhinosporidiosis. No other treatment was given. Patient was well after 3 months with no evidence of recurrence during follow up.

Key words: Rhinosporidiosis, Urethra.

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Introduction:

Rhinosporidiosis is a benign condition with minimal systemic effects. The organisms are limited to the polyps; regional lymph nodes and adjacent tissues are not involved¹. The polypoidal growth causes pressure and obstructive symptoms when they enlarge. Commonest sites of infection are the nose, followed by eyes and skin. Other extra-nasal sites include the larynx, hard palate, vagina, vulva, urethra and anus². In the urethra, the lesions are red, sessile or a pedunculated mass extending beyond the external urethral meatus. This may resemble a mucocele, hemangioma, condylomata or a neoplasm³. Here we report a case of rhinosporidiosis involving the external urethral meatus.

Case report:

A 45-year old male, resident of Dhaka, presented to urology out patient department of Bangabandhu Sheikh Mujib Medical University, Shahbagh, Dhaka with a six months history of a polypoidal lesion at external urethral meatus. There was a history of dysuria with bloody discharge from the lesion. Except for these local symptoms, patient was otherwise asymptomatic. No constitutional symptoms were present. The past and personal history was insignificant except for occasional bathing in a water pond. General physical examination and examination of nose, oral cavity and eyes, which are common sites for rhinosporidiosis, was unremarkable. On local examination, a small red, fleshy, sessile lesion was seen at the external urethral orifice measuring 0.7 x 0.6 x 0.2 cm, clinically resembling a urethral caruncle. Urine routine examination showed presence of red cells. The lesion was completely resected under spinal anaesthesia. Histopathology showed stratified squamous lined piece of tissue which reveals many sporangia containing endospore. Subepithelial region shows granulation tissue and is

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infiltrated with chronic inflammatory cells diagnostic of rhinosporidiosis. No other treatment was given. Patient was well after 3 months with no evidence of recurrence.

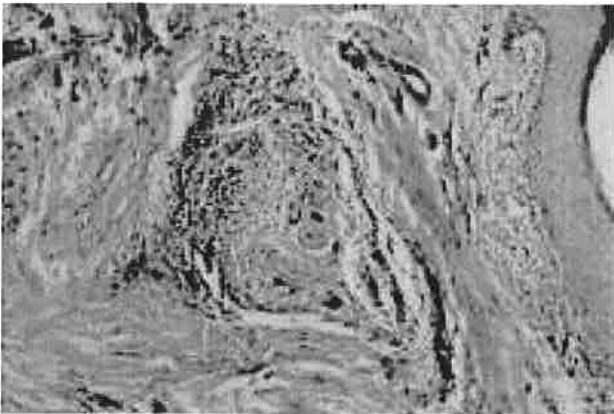


Fig-1: Polypoidal lesion arising from external urethral meatus showing sporangia in varying stages of maturation. H&E x 2.

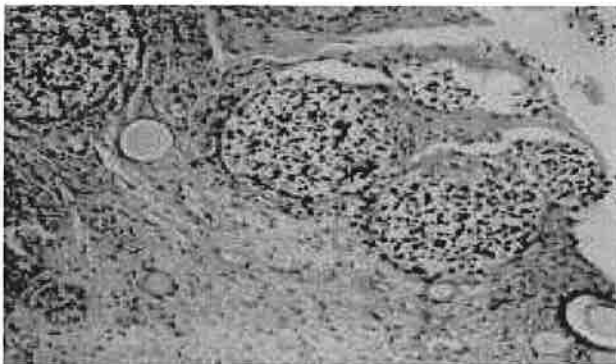


Fig-2: Sporangia at different stages of development, including small trophic cysts and large cystic sporangia. The sporangia are seen in the overlying urothelium and sub-epithelial tissue separated by chronic granulomatous reaction. (Haematoxylin and eosin x 100)



Fig-3: A large sporangium containing numerous endospores of *Rhinosporidium seeberi* in the lumen. A sharply chitinous wall can also be seen. (Haematoxylin and eosin x 200)

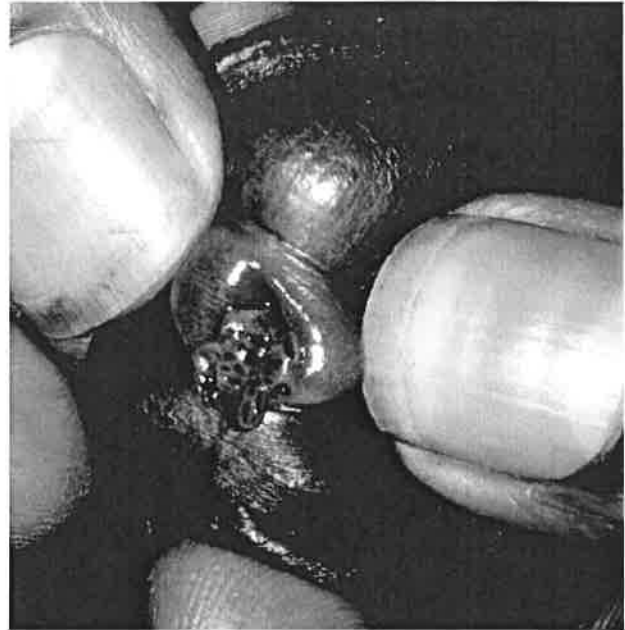


Fig-4: Preoperative picture of external urethral meatus showing a polypoidal growth.



Fig-5: External urethral meatus seven days post-operatively.

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 19004.

In India, O' Kinealyi was the first to report such a case in 1894, and it was suggested to name the organism as Rhinosporidiosis Kinealyi⁴. 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 al⁵ 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 Srilanka, only 1 was reported in urethra⁶. Rhinosporidiosis is endemic in some parts of Kerala⁵. Infection usually occurs in males, but females are also affected⁵. The source of infection is not known. However, the disease in man in India and Srilanka has been associated with swimming and working in stagnant water, which suggests that water is a natural habitat of *R.seeberi*⁷. Trauma has been reported as a predisposing factor⁴. 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 presentation⁷. The absence of rhinosporidiosis in the sexual partners of these patients is strong evidence that the disease is neither infectious nor contagious⁷.

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 de novo) due to sub mucosal 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 urethros-copy 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 recurrence⁴.

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 excision⁸. Rhinosporidiosis 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.

Conclusion:

Rhinosporidiosis is a potentially curable infectious condition, which can behave in an aggressive manner if left untreated⁹. It should be considered in the differential diagnosis of vascular, polypoidal lesions at unusual sites.

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