

Case Report

Rhinosporidiosis of Conjunctiva: A Rare Presentation

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Abstract

Rhinosporidiosis is a chronic and localized infection of the mucous membrane of nose and paranasal sinuses caused by *Rhinosporidium seeberi* which is endemic in several parts of India particularly south India but it is rare in north eastern part of India. Ocular rhinosporidiosis is rare with less than 15 % of total cases. It usually presents as polypoidal mass and may mimic clinically as papilloma therefore histopathological diagnosis is crucial for correct diagnosis and treatment. We present a rare case of ocular rhinosporidiosis presenting as a polypoid conjunctival mass from Silchar, Barak valley region of north eastern India.

Keywords: North eastern India, Ocular rhinosporidiosis, *R. seeberi*, Conjunctiva, Histopathological examination.

INTRODUCTION

The causative agent of rhinosporidiosis is the fungus *Rhinosporidium seeberi*. But fungal aetiology cannot be proved with certainty. Attempts to culture the fungus on various media have also been unsuccessful (Ahluwalia, 1999). It usually presents as a polypoidal and vascular mass affecting nasal cavity, eye, throat, ear and even genitalia. Conjunctiva, lacrimal sac, sclera and eyelids are the most common ocular sites involved Shrestha et al., (1998). The disease is endemic in Srilanka and India (Arseculeratne, 2002). Extra-nasal rhinosporidiosis is uncommon disease and often difficult to diagnose on clinical examination with differential diagnosis like benign cystic lesions (epidermal inclusion cysts), soft tissue lesions and papillomas. Histopathology is gold standard for diagnosis of rhinosporidiosis of unsuspected extra-nasal lesions. Definitive diagnosis of rhinosporidiosis depends on the histopathological examination of resected specimen. Definitive management includes surgical excision combined with electro coagulation (Pal et al., 2014).

RESULT

Case report-A young boy of 11yrs of age presented with a bulky friable polypoidal mass of the mucosa lining the upper eyelid since 18 months with watering and

occasional bleeding from the mass. The mass is of approximately 3×1×0.8 cm in size, polypoid with a stalk with rough irregular outer surface (Figure 1). No similar lesion is seen in nose. Father is a cultivator and he works in the field with his father. No relevant history of any trauma or injury to the eye was obtained. Blood cell count and other biochemical investigations were within normal limits except mild eosinophilia. A clinical diagnosis of papilloma was made and surgical excision was done and the tissue was sent for histopathological examination.

Macroscopic and microscopic findings

The excised mass measures 3×1×0.8 cm, polypoidal, friable, reddish in colour. The tissue was fixed in 10% formalin and was processed under standardized conditions in automated tissue processor for paraffin embedding. Five micron sections were taken for staining with hematoxylin and eosin. Microscopic examination revealed multiple cystic spaces with thick amorphous wall (Figure 2). The cystic spaces contained basophilic spherical bodies compatible with rhinosporidial endospores. A granulomatous reaction was observed around the cystic areas. PAS (Periodic acid Schiff) staining of the tissue supports the diagnosis.



Figure 1. A Case of Conjunctival Rhinosporidiosis Presenting as a Polypoidal Mass.

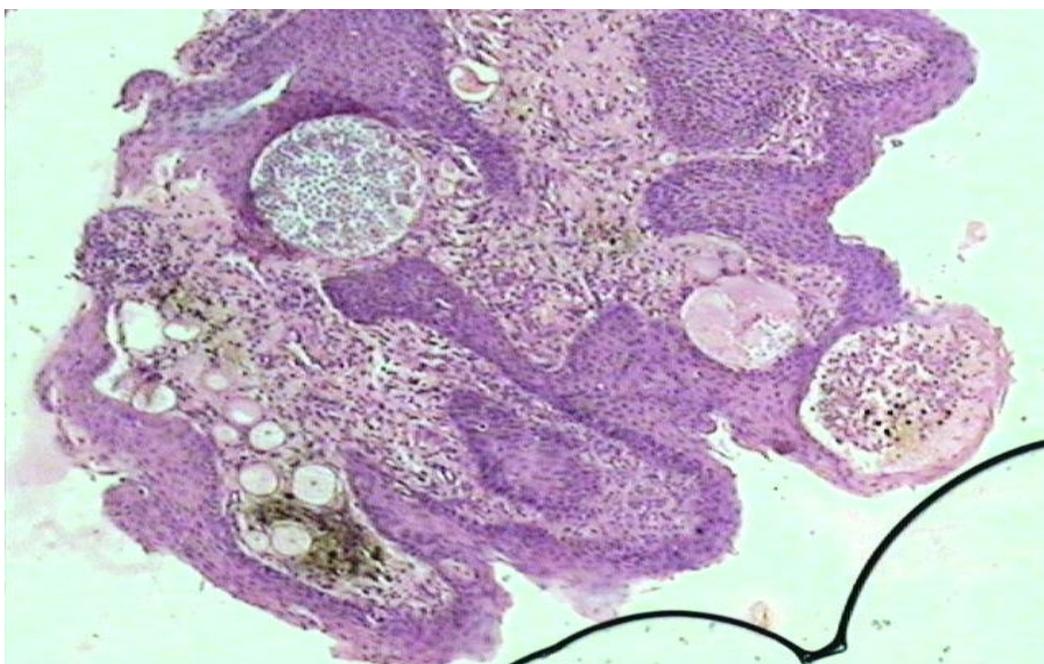


Figure 2. Photomicrograph Showing Sporangia Containing Numerous Spores and the Surrounding Tissue Shows Chronic Inflammation [H & E Stain 10x Veiw].

DISCUSSION

The first case of conjunctival rhinosporidiosis was noted by Kirkpatrick David and Sivaramasubrahmanyam (1973). Rhinosporidiosis is common in southern part of India with agricultural background but it is rare in north eastern India. One survey revealed that the disease is rare in Jammu and Kashmir, Himachal Pradesh, and North eastern states of India. In our knowledge this is the second case of rhinosporidiosis from this region; first

case was reported by Saha Ray et al. (2011) from Tripura. Ocular involvement is relatively uncommon, among the ocular rhinosporidiosis conjunctival polypoid mass is most common mode of presentation Kuriakose, (1963). The pathway of transmission of rhinosporidiosis remains unclear. It has been suggested that infection occur while bathing in common pond i.e. water borne. It is true for our case also as there is history of taking bath in pond Saha Ray et al., (2011).

Simple surgical excision is the treatment of choice

with relatively few cases having recurrence (Kuriakose, 1963). Diagnosis is done by histopathological examination and PAS staining of the tissue.

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