

A Case Of Isolated Rhinosporidiosis Of Lacrimal Sac Diagnosed As Chronic Dacrocystitis – Case Report

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Abstract:

Rhinosporidiosis is a Chronic infection of the mucous membrane, caused by Rhinosporidium seeberi. Transmission of infection is through transepithelial penetration & Occular penetration, mostly affecting young people, predominantly males with the history of bath in ponds, rivers or stagnant waters. The nose & nasopharynx are the most common site of infection. Isolated lacrimal sac Rhinosporidiosis without nasal mass is a rare entity. Although nasal obstruction & Epistaxis are a common presentation, patient with epiphora without any nasal mass is difficult to diagnosis.

In this case patient presented with isolated Lacrimal Sac Rhinosporidiosis disguising as Chronic Dacrocystitis. Patient was managed by endoscopic excision.

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I. Introduction

Rhinosporidiosis is a chronic infection of the mucous membrane which is caused by *Rhinosporidium seeberi*, mostly affecting young people, predominantly males. Route of infection is believed to be transepithelial and ocular penetration. History of bath in pond, river or stagnant waters is present. It is commonly seen in southern zone of India and Srilanka because of the hot tropical climate². The nose and nasopharynx are the most common site of infection. It can also affect other structures like larynx, trachea, skin, genitalia, lungs, and rectum³. Isolated lacrimal sac rhinosporidiosis without nasal mass is very rare. Nasal obstruction and epistaxis are common presentation. Patient with epiphora without nasal mass is difficult to diagnosis¹. Treatment of choice is surgical excision

II. Case Report

A 47 year old male, residing in ichapuram, Srikakulam district, farmer by occupation came to otorhinolaryngology outpatient department at Government medical college, Srikakulam, with chief complaints of swelling below the medial canthus of left eye since 1 year which is insidious in onset, non-progressive, associated with purulent discharge on pressing the swelling manually. History of watering of left eye since 6 months which is intermittent in nature, no history of ocular trauma, nasal pathology, redness or any visual disturbance was noted. Patient was non diabetic, normotensive, not an asthmatic.

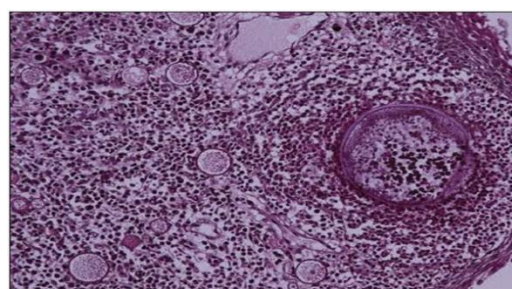
On examination, a 3x2 cm non tender swelling was present medial and below the medial canthus of left eye. There was no redness, no excoriation of skin, and no pus point. Anterior rhinoscopy did not reveal any abnormality in the nasal cavity. Nasal patency was found to be equal on both sides. On performing lacrimal syringing, left side regurgitation of pus mixed with clear fluid from opposite punctum was noted. Visual acuity was normal on both sides.



Patient was prepared for Endoscopic Dacrocystorhinostomy under local anesthesia. Nasal Mucoperichondrium flap was elevated. Using Kerrison's punch, lacrimal bone was removed to expose the lacrimal sac. Intraoperatively along with purulent discharge, a red, globular mass was found on opening the lacrimal sac. The mass was excised and sent for histopathological examination. Lacrimal sac was marsupialized widely and kept open along the lateral nasal wall. Betadine wash given. Post operative recovery was good.



Histopathological examination shows sporangia which are surrounded by dense chronic inflammatory infiltrate comprising of lymphocytes and plasma cells – features suggestive of rhinosporidiosis. Post operatively, dapsonsone 100mg / day was started. Patient followed up for 6 months, no recurrence was found.



III. Discussion

Rhinosporidiosis is a chronic granulomatous disease, caused by *rhinosporidium seeberi*. First it was classified under fungal disease, now considered as an aquatic protistan parasite belonging to the class of Mesomycetozoa¹. Human is considered to be an accidental host. The nose and nasopharynx are infected commonly (78%), followed by conjunctiva (15%). Approximately 26% of ocular rhinosporidiosis are associated with conjunctival or nasal involvement¹.

Infection may spread into lacrimal sac either through nose or conjunctiva. In the present case, patient had no nasal and conjunctival involvement. Due to complete obstruction of lacrimal sac, our patient presented with only epiphora as chronic dacrocystitis which mislead the diagnosis. Computed tomography helps to judge the extension of disease and erosion of the bony structures around it¹. Grading helps to decide the surgical procedure to be undertaken and need for multidisciplinary approach whenever needed.

Grading:⁴

GRADES	TREATMENT
Grade 1: Lesion limited to lacrimal sac as a pedunculated, sessile mass or polyp +/- Nasolacrimal duct but no lesion in nose or eye	Dacrocystorhinostomy or modified Dacrocystorhinostomy
Grade 2: Lesion involving Lacrimal sac, Nasolacrimal sac, and nose or eye	Dacrocystectomy along with en bloc resection of Nasolacrimal duct and cauterization of nasal or eye lesion.
Grade 3: Lesion involving Lacrimal sac, Nasolacrimal duct, and nose or eye and spread to skin +/- Lacrimo-cutaneous fistula	Extended Dacrocystectomy involving uncinectomy, ethmoidectomy, complete extirpation of the sac with en bloc removal of Nasolacrimal duct along with fistulectomy if fistula present.

Post operatively keeping the patient on Dapsone reduces the risk of local recurrence. Dapsone arrests the maturation of the spores and increases fibrosis

IV. Conclusion

Isolated lacrimal sac rhinosporidiosis is a rare entity. Patient with only lacrimal sac swelling without nasal mass or conjunctival pathology, difficult the diagnosis. Hence, always consider rhinosporidiosis as differential diagnosis in a patient with isolated lacrimal sac swelling associated with history of bath in pond or stagnant water.

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