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Conjunctival Rhinosporidiosis: Basket of Sporangia Hidden Below the Puncta

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Abstract
Rhinosporidiosis is an infection caused by Rhinosporidium seeberi. R. seeberi has recently been classified as a Mesomycetozoea, an aquatic protozoan parasite .we report a rare case of 45 year old male with conjunctival mass over left eye .surgical excision and histopathology examinitaion was done suggestive of conjunctival rhino sporidiosis.
Keywords: *Rhinosporidiosis, Histopathology.*

Case Report

We report a rare case of 45 year old male patient with c/o mass over Left lower lid fornix since 4 months. Pt. was a swimmer. His ocular examination was done and findings given in following table

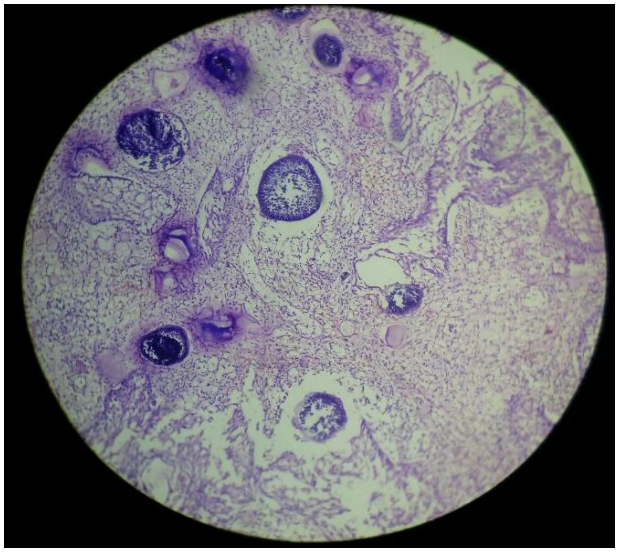
	RE	LE
V/A	6/9→6/6	6/6
LID	NORMAL	NORMAL
CONJUNCTIVA	CLEAR	4*2 mm of solitary pedunculated mass was present near medial canthal side of lower fornix with multiple yellow granules present over it s/o conjunctival Rhinosporidiosis
CORNEA	BRIGHT	BRIGHT
AC	ND	ND
IRIS	CP(N)	CP(N)
PUPIL	NSRTL	NSRTL
LENS	CLEAR	CLEAR
NLP	NR	NR
OM	NR	NR

Posterior segment findings of both eye were within normal limits.

Firstly complete history of the patient was taken. Then informed written consent was taken. After that patient was posted for surgical excision under LA and sample was sent for histopathological examination. Inflammatory cell infiltration is present S/O conjunctival Rhinosporidiosis.

Histopathological findings were suggestive of Conjunctival mucosal tissue lined by partially ulcerated squamous epithelium and submucosa has multiple round sporangia containing spores.

Histopathological slide



Pre-operative

Intra-operative

Post-operative

Discussion

Rhinosporidiosis is an infection caused by Rhinosporidium seeberi.

- R. seeberi has recently been classified as a Mesomycetozoea, an aquatic protozoan parasite[1,2,10]. Rhinosporidiosis is endemic in many parts of India. Local infection from exposure to the organism appears to be implicated in the pathogenesis of R .seeberi. Rhinosporidiosis is endemic in parts of India and Sri Lanka, but quite sporadic in other parts of the world, including the United States [3,4]. Local infection from exposure to the organism appears to be implicated in the pathogenesis of *R. seeberi*, but thus far, it has not been possible to intentionally infect an animal model[2]. Human-to-human transmit-ssion has not been documented, either, so it is not believed to contagious[2,5]. Infection usually causes a chronic granulomatous reaction resulting in polypoid growths within mucous membranes[5,6]. The nasal mucosa is most often affected, but 10-15% of cases are ocular. The most frequent ocular site of infection is the conjunctiva, followed by the lacrimal sac[2,10]. There have been a few case reports of scleral melting and staphyloma formation secondary to *R. seeberi* infection[7].

Chronic infection of mucous membranes by R. seeberi produces polypoid mass lesions commonly arising from the nasopharynx, oral cavity, or orbit/adnexa. The lesions are usually characterized by friability and abundant vascularity. Pinpoint white spots are also commonly seen on the surface which correspond with mature sub-epithelial sporangia[2].

Diagnosis relies entirely on histopathology which demonstrates trophocytes and sporangia in various stages of development and degeneration. Infiltration of acute and chronic inflammatory cells will also be present[5,6].

Rare cases of spontaneous regression have been recorded[2,3]. However excision with local cautery is considered the most effective treatment[8,10]. Cautery is used to reduce the risk of recurrence which is caused by endospores being released into nearby mucosa. Medical treatment with dapsone and amphotericin B remains controversial. Dapsone has had some success in treating rhinosporidioisis; it is believed to act by arresting sporangia maturation[9]. Recurrence rates have been noted to vary by infection site with conjunctival and lacrimal sac recurrences being relatively low compared to nasopharyngeal recurrence rates[6,10].

Differential Diagnosis

- Pyogenic granuloma
- Squamous papilloma

- Chronic infection
- Oncocytoma
- Sebaceous adenoma
- Sebaceous carcinoma
- Squamous carcinoma

References

1. Arseculeratne SN. Rhinosporidiosis: what is the cause? CurrOpin Infect Dis 2005;18(2):113-118.
2. Arseculeratne SN. Recent advances in rhinosporidioisis and rhinosporidium seeberi. Ind J Med Microbiol 2002;20:119-131.
3. Shrestha SP, Hennig A, Parija SC. Prevalence of rhinosporidiosis of the eye and its adnexa in Nepal. Am J Top Med Hyg 1998;59:2331-2334.
4. Reidy JJ, Sedesh S, Klafter AB, Christopher O. Infection of the conjunctiva by Rhinosporidium seeberi. Surv Ophthalmol 1997;41(5):409-413.
5. Harissi-Dagher M, Robillard N, Corriveau C, Mabon M, Allaire GS. Histopathologically confirmed ocular rhinosporidiosis in two Canadians. Can J Ophthalmol 2006;41:226-229
6. Rogers S, Waring D, Martin P. Recurrent lacrimal sac rhinosporidiosis involving the periocular subcutaneous tissues, nasolacrimal duct, and nasopharynx. Orbit 2012;31(5):358-360.
7. Castelino AM, Rao SK, Biswas J, Gopal L, Madhavan HN, Kumar SK. Conjunctival rhinosporidiosis associated with scleral melting and staphyloma formation: diagnosis and management. Cornea 2000;19:30-33.
8. Arora R, Ramachandran V, Raina U, Mehta DK. Oculosporidiosis in Northern India. Indian Pediatr 2001;38:540-543.
9. Job A, Venkatesmaran S, Mathan M, Krishnaswami H, Raman R. Medical therapy of rhinosporidiosis with dapsone. J LayngolOtol 1993;107(9):809-812.
10. Reddy AK, McAllister AR, Syed NA, Allen RC. Conjunctivalrhinosporidiosis in a temperate climate. EyeRounds.org. posted November 3, 2015; available from http://eyerounds.org/cases/224-rhinosporidiosis.htm