Rhinosporidiosis - Cutaneous manifestation *

Rinosporidiose - Manifestação cutânea

Andrelou Fralete Ayres Vallarelli[1]
Silvânia Pinheiro Rosa[2]
Elemir Macedo de Souza[3]

Abstract: Rhinosporidiosis is an infectious mucocutaneous disease caused by Rhinosporidium seeberi. It is characterized by sessile or pedunculated polyps which are erythematous, moriform and friable and which mainly affect the ocular and nasal mucosa. The occurrence of skin lesions is occasional and due to dissemination from the adjacent mucosa, direct inoculation or hematogenous dissemination. The authors report the clinical case of an eight-year-old boy with an isolated lesion located in the medial epicanthus of the right eye.
Keywords: Communicable diseases; Parasitic diseases; Rhinosporidiosis; Rhinosporidium

Resumo: A rinosporidiose é uma doença infecciosa zooantropofílica mucocutânea causada pelo *Rhinosporidium seeberi*. Caracteriza-se por massa polipoide, séssil ou pedunculada, eritematosa, moriforme e friável, principalmente, nas mucosas nasais e oculares. A ocorrência na pele é ocasional, por disseminação a partir da mucosa adjacente, inoculação direta ou generalização via hematogênica. Os autores apresentam o caso clínico de um menino de oito anos de idade, com lesão isolada localizada no epicanto medial do olho direito.
Palavras-chave: Doenças parasitárias; Doenças transmissíveis; *Rhinosporidium*; Rinosporidiose

Rhinosporidiosis is an infectious mucocutaneous granulomatous disease caused by Rhinosporidium seeberi. It usually affects the naso-oropharynx, occasionally affecting the conjunctiva and the lacrimal sac, and sporadically, the urethra, genitalia, larynx, paranasal sinuses and the skin (Figures 1 and 2).[1-3] Cases of rhinosporidiosis have been reported in the Americas, Europe, Africa and Asia, with high prevalence in India and Sri Lanka.[1,2,4] It is endemic in the western region of northeastern Brazil. It occurs by inoculation of spores present in stagnant water or dust from fields. It is more common in men, especially affecting the nose. Eye infection is more prevalent in women.[1,2,6,8] The histology and/or cytology performed after fine needle aspiration

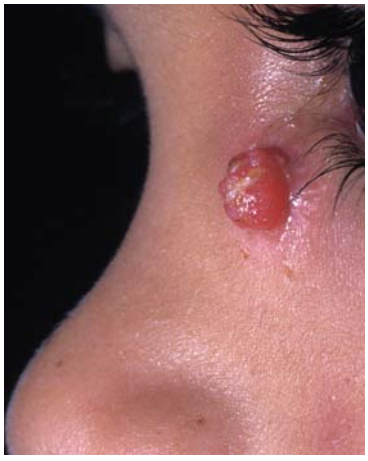

FIGURE 1: A nine-year-old mulatto male patient from the state of Maranhao presenting a sessile tumor with an irregular, friable, erythematous, muriform surface with white dots and a diameter of 0.8 cm in the medial epicanthus of the left eye. The lesion had been present for three months. Surgical removal and electrocoagulation were performed

Received on 14.03.2010.
Approved by the Editorial Board and accepted for publication on 31.08.2010 .
* Work conducted at University of Campinas (Unicamp) - Sao Paulo (SP), Brazil.
Conflict of interest: None / *Conflito de interesse: Nenhum*
Financial funding: None / *Suporte financeiro: Nenhum*

[1] Ph.D. – Private practice - Sao Paulo (SP), Brazil.
[2] Dermatologist and specialist by the Brazilian Society of Dermatology - Private practice - Sao Paulo (SP), Brazil.
[3] Assistant professor (faculty member) - Assistant professor of Dermatology at the Department of Internal Medicine, Faculty of Medical Sciences, State University of Campinas (UNICAMP) - Sao Paulo (SP), Brazil.

©2011 by Anais Brasileiros de Dermatologia

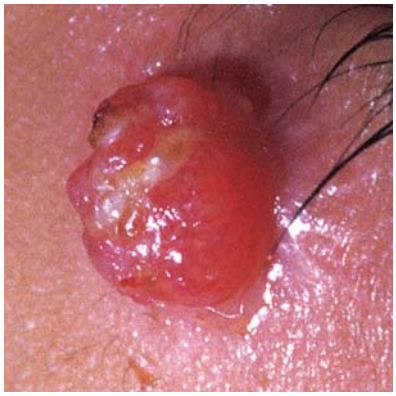

Figure 2: Detail of the lesion

(FNAC) serve to confirm the diagnosis (Figures 3 and 4A).[3] The first reference was credited to Malbran (1896). Guilhermo Seeber (1900) reported the causative agent and classified it as a protozoan from the *Coccidioidaceae* family. A phylogenetic analysis classified it as belonging to the group DRIPs *(Dermocystidium,* rosette agent, *Ichthyophorus,* and *Psorospernim),* an aquatic protistan parasite (Figure 4B).[2, 4, 9] ❑

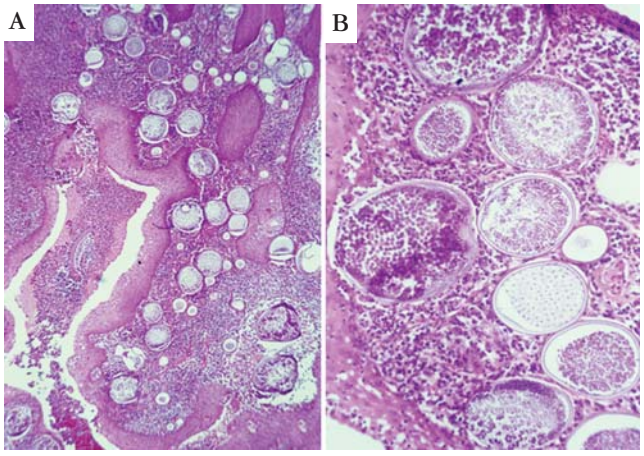

Figure 3: A. A histological examination revealed evolutionary forms of sporangia, young, collapsed and empty forms and bigger, mature forms near the surface of the epithelium (HE, 50X); **B.** The detail shows thousands of spores within the mature forms and inflammatory infiltrate consisting of lymphocytes, histiocytes, plasma cells, some eosinophils and foreign-body type giant cells (HE, 100X)

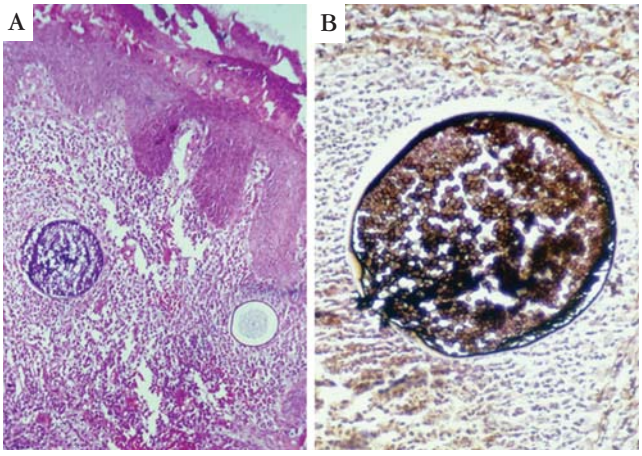

Figure 4: A. The stroma shows chronic inflammatory reaction with predominance of plasma cells, lymphocytes and few neutrophils (HE, 50X); **B.** the sporangia and spores are best visualized with the Grocott-Gomori stain (50X)

REFERENCES

1. Kumari R, Nath AK, Rajalakshmi R, Adityan B, Thappa DM. Disseminated cutaneous rhinosporidiosis: varied morphological appearances on the skin. Indian J Dermatol Venereol Leprol. 2009;75:68-71.
2. Abud LN, Pereira JC. Rinosporidiose nasal - relato de quarto casos e revisão de literatura. Arq Interrn Otorinol. 2007;11:428-35.
3. Deshpande AH, Agarwal S, Kelkar AA. Primary cutaneous rhinosporidiosis diagnosed on FNAC: A case report with review of literature. 2009;37:125-7.
4. Fredricks DN, Jolley JA, Lepp PW, Kosek JC, Relman DA. Rhinosporidium seeberi: a human pathogen from a novel group of aquatic protistan parasites. Emerg Infect Dis. 2000;6:273-82.
5. Fonseca APM, Fonseca WSM, Bona SH, Lopes Filho LL, Araújo RC. Rinosporidiose nasal: relato de dois casos. An Bras Dermatol. 1990;65:123-4.
6. Dadá MS, Ismael M, Neves V, Branco Neves J. Two cases of nasal rhinosporidiosis. Acta Otorrinolaringol Esp. 2002;53:611-4.
7. Boni ES, Saliba ZM, Sessino DB, Miranda JNR, Boni M. Rinosporidiose da conjuntiva-relato de caso. Arq Bras Oftalmol. 2002;65:103-5.
8. Lupi O, Tyring SK, McGinnis MR. Tropical dermatology: fungal tropical diseases. J Am Acad Dermatol. 2005;53:931-51.
9. Mattedi MGS, Cunha A, Boni ES, Palhano Júnior L. Rinosporidiose nasal: Relato de um caso. An Bras Dermatol. 1986;61:141-4.

Mailing address / Endereço para correspondência:
Andrelou Fralete Ayres Vallarelli
Rua Dr. Antônio da Costa Carvalho, 577 – Ap. 91 – Cambuí
13024-050 Campinas - SP, Brazil
Phone: (19) 3234-2404
E-mail: andrelou@uol.com.br

How to cite this article/*Como citar este artigo*: Vallarelli AFA, Rosa SP, Souza EM. Rhinosporidiosis - cutaneous manifestation. An Bras Dermatol. 2011;86(4):795-6.