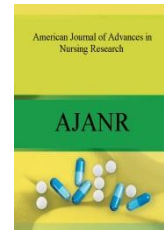




AMERICAN JOURNAL OF ADVANCES IN NURSING RESEARCH



Journal homepage: www.mcmed.us/journal/ajanr

DISSEMINATED CUTANEOUS RHINOSPORIDIOSIS – A RARE PRESENTATION

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Article Info

Received 28/04/2015

Revised 10/05/2015

Accepted 17/05/2015

Key word: Cutaneous
Rhinosporidiosis,
Disseminated, Nodules.

ABSTRACT

Rhinosporidiosis is a chronic granulomatous disease of mucous membrane of man characterized by polyposis of nasal mucosa, conjunctiva and other sites. It is caused by *Rhinosporidium seeberi*. We hereby report a case of 71-year old man who presented with multiple cutaneous painless nodular lesions over the right side of abdomen, left shoulder, back and over the medial aspect of right thigh since 5 years. He had undergone nasal surgery for nasal obstruction in the past. Potassium hydroxide mount and histopathological examination showed the picture of cutaneous rhinosporidiosis.

INTRODUCTION

Rhinosporidiosis is a chronic granulomatous disease of mucous membrane of man and animals characterized by polyposis of nasal mucosa, conjunctiva and other sites. Rhinosporidiosis is caused by *Rhinosporidium seeberi*, taxonomically included along with hydrophilic pathogens Mesomycetozoa [1].

The disease is prevalent in the Indian subcontinent, Sri Lanka, South America and East America. Infections are acquired through contact with contaminated water sources. Rhinosporidiosis commonly manifests as polyps in nasal mucosa, nasopharynx and oropharynx. Cutaneous manifestations with or without mucosal involvement are extremely rare [1, 2]. We hereby report a case of disseminated cutaneous rhinosporidiosis in an elderly male.

Case History

A 71-year old male presented with multiple cutaneous nodular lesions over the right side of abdomen, left shoulder, back and over the medial aspect of right

thigh since 5 years. Lesions started with the abdominal cutaneous swelling; later he noticed it in other regions. Lesions were progressively increasing in size and were painless, nodular without discharge or ulceration. Hand lens was used for detailed examination. He gave past history of having nasal obstruction and difficulty in breathing due to swelling, for which he was operated 10 years ago.

Biopsy material was taken and sent for microbiological and pathological examination. Potassium hydroxide (KOH) mount showed multiple 5-8µm thin walled sporangia with endospores within. Histopathological sections showed hyperplastic epithelium with numerous globular cysts of varying sizes representing immature and few mature sporangia in the upper dermis.

He was screened for involvement in other areas and proved negative; the otolaryngeal examination also turned out to be negative. His haemoglobin was 9.2mg/dl; testing for HIV and HbSAg was negative, RBS- 90mg/dl. Chest X-ray and abdominal sonography was normal. A final diagnosis of Disseminated Cutaneous Rhinosporidiosis was made and advised for Excision Diathermy.

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Research Article



Fig 1. Showing multiple lesions over A. abdomen, B. thigh, C. shoulder, D. back



Fig 2. KOH mount showing Sporangia (40 X)

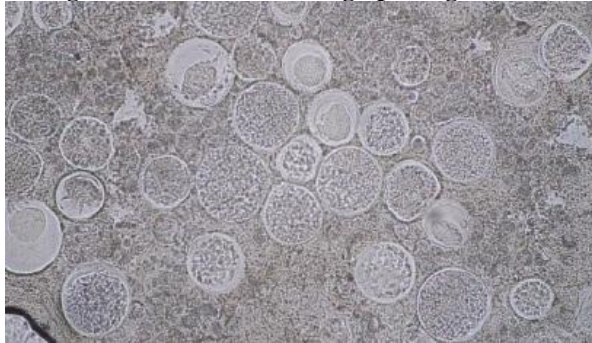
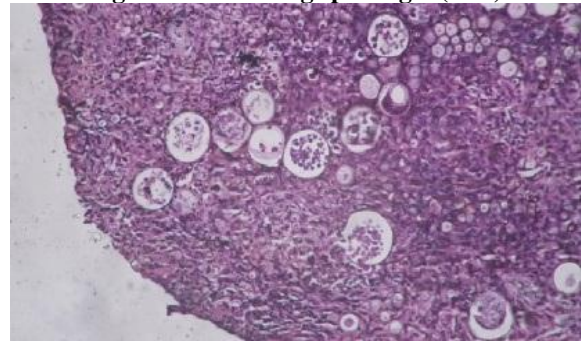


Fig 3. HPE showing sporangia (40X)



DISCUSSION AND CONCLUSION

Cutaneous lesions in Rhinosporidiosis are rare and usually present as papillomatous or sessile masses in areas adjoining to nose and face. In addition, there may be subcutaneous scattered nodules which may ulcerate and are seen fungating over the skin. Cutaneous lesions are rarely pedunculated. However, Tappa MD [3] has reported pedunculated lesions in 2009. The mode of infection may be direct inoculation to the local site or it may be through hematogenous route and present as extracutaneous lesions.

In rhinosporidiosis, papillomatous lesions in buccal cavity, vagina, vulva, urethra and over penis have been reported. Rhinosporidiosis has also been reported from scalp, tracheobronchial tree, larynx, lips, palate, rectum and anal canal. The differential diagnosis includes syphilis, cutaneous tuberculosis, rhinoscleroma, neoplastic lesions like hemangioma, angiofibroma or

epithelioma. Others include polypoid tumors of *Cryptococcus neoformans*, Coccidioidomycosis and *Adiaspiromycosis*.² The diagnosis of Rhinosporidiosis mainly depends on the direct microscopy on histopathological section, scrape cytology and FNAC cytology, KOH mount. The organism can be observed with fungal stains e.g., Gomorimethenamine silver, periodic acid-Schiff, as well as with standard hematoxylin and eosin stain showing mature or immature sporangia with lymphocytic infiltration. Till now, *R. seeberi* has not been cultivated successfully on artificial culture media. However, it has been shown to grow in an epithelial carcinoma cell culture [2, 4].

In our case, patient had nasal polyp without any cutaneous manifestations. After 5 years of surgery, he noticed cutaneous lesions at various sites which were gradually progressive. In this case, it may be due to hematogenous spread. Kishan Prasad reported a similar

case of disseminated cutaneous rhinosporidiosis with pharyngeal lesions. Our patient didn't have any systemic symptoms and did not reveal any systemic lesions.

Cutaneous lesions should be treated early to prevent extension of lesions or disseminations. Surgical removal and diathermy excision is the treatment of choice, but recurrences do occur. Drugs such as Dapsone, Ketoconazole, Amphotericin B have proved effective and has to be used with excision to prevent recurrence [5, 6].

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This case underscores that disseminated rhinosporidiosis has to be suspected with papillomatous lesions of skin associated with pharyngeal lesions.

ACKNOWLEDGEMENT

The skilled technical assistance by the technicians and staff of the pathology department is greatly acknowledged.

