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CASE REPORT

Disseminated Cutaneous Rhinosporidiosis: A Rare Case Report

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ABSTRACT

Rhinosporidiosis is a chronic granulomatous disorder caused by *Rhinosporidium seeberi*. It usually presents as a soft polypoidal pedunculated or sessile mass. Nose and nasopharynx are the commonly affected sites, but other sites, such as conjunctiva, the lips, palate, uvula, maxillary antrum, epiglottis, larynx, trachea, bronchus, ear, scalp, vulva, vagina, penis, and rectum, have been reported. However, cutaneous manifestation is rare. We report such a case of a 50-year-old male patient from rural south Odisha presenting to the ENT Department of SCB Medical College and Hospital, Cuttack, with multiple granulomatous growths of different sizes all over the body, along with a nasal mass, of 2½-year duration. He also gives history of a surgery on his nose 3 year back. Histopathology of the excised cutaneous and nasal lesions confirmed our diagnosis as rhinosporidiosis. On the basis of these clinical and histopathological findings, a diagnosis of nasal rhinosporidiosis with disseminated cutaneous spread was made.

Keywords: Disseminated, Rhinosporidiosis, *Rhinosporidium seeberi*.

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CASE REPORT

A 50-year-old male patient from rural south Odisha, farmer by occupation, presented to the ENT Department of SCB Medical College and Hospital with numerous reddish, shiny, globular growths of different sizes of 2½-year duration all over the body. The patient had surgery for the nasal growth 3 years back, which was the only lesion at that time, but reappeared again after 4 months and other lesions started appearing subsequently in due course. There was history of bathing in ponds also used by cattle since early childhood. He was a chronic alcoholic. Family history was nothing suggestive. On examination, the patient was thin built with pallor.

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Anterior rhinoscopy revealed an erythematous, polypoidal growth protruding from the left nostril (Fig. 1). Nasopharynx and oral cavity examination showed no visible growth. Various cutaneous lesions over face, scalp, back, anterior chest wall, and limbs (Figs 2 to 5) were found to be nontender, highly vascular, and bleeding on touch. Their sizes varied, were lying singly, and also in clusters. The surface was moist and shiny, with a few lesions showing hemorrhagic crusts.

Other systemic examination revealed no abnormality. Hematological examination showed moderate anemia and all biochemical parameters were within normal range. Chest X-ray and ultrasound of abdomen and pelvis

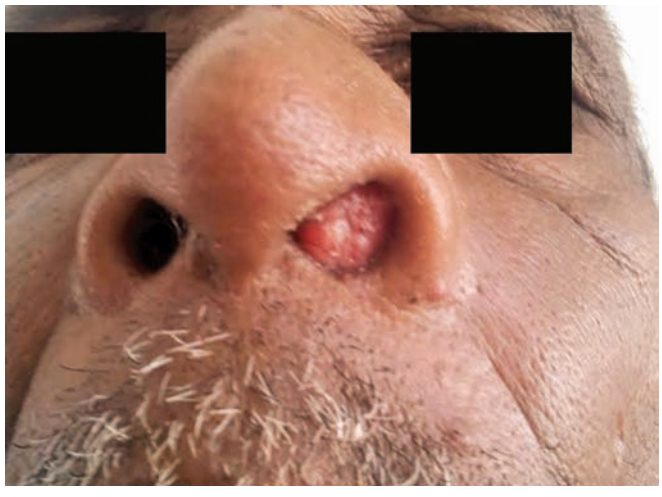

Fig. 1: Growth of the left nasal cavity

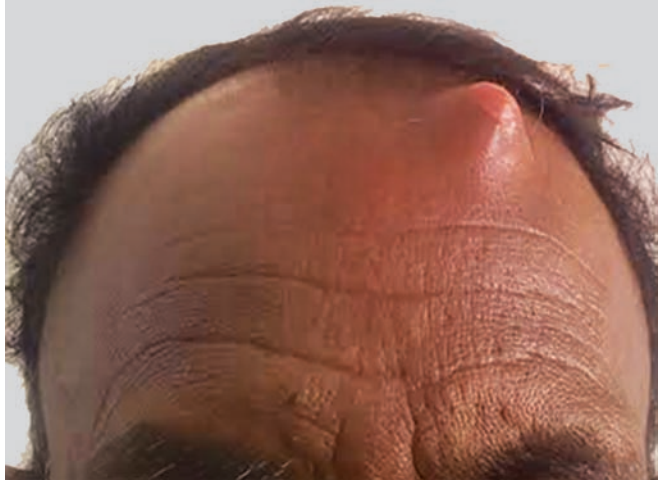

Fig. 2: Growth over the scalp

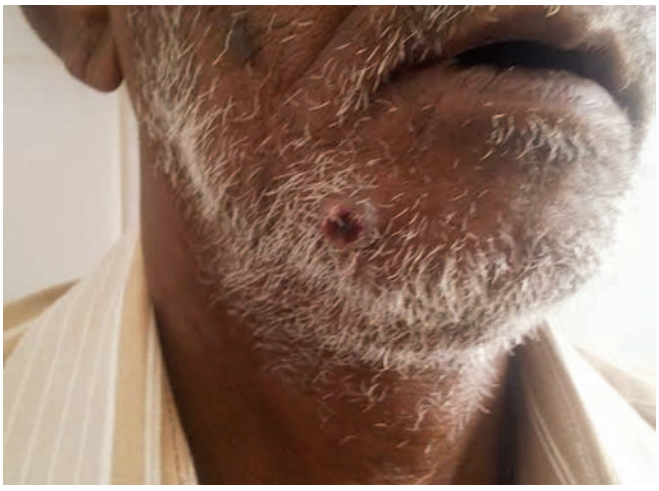

Fig. 3: Growth over the chin area

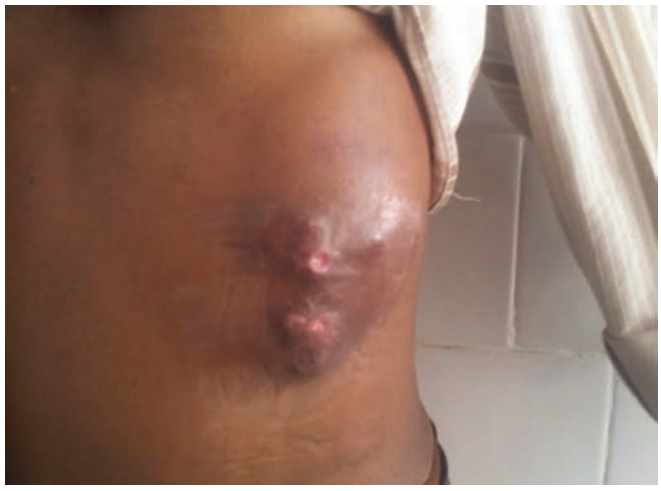

Fig. 4: Growth over anterior chest wall

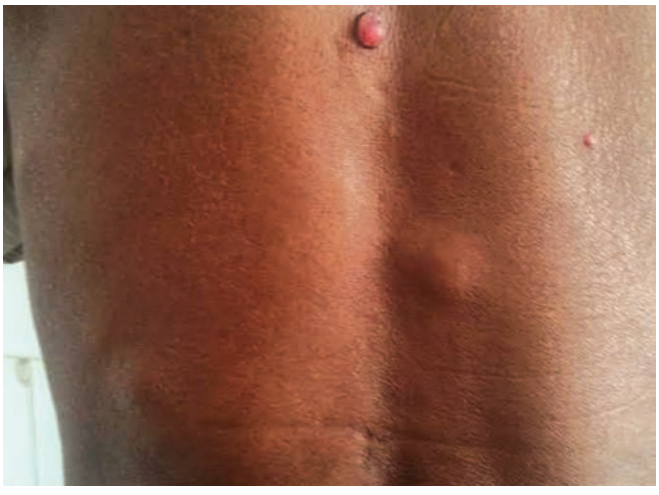

Fig. 5: Growth over the back of the trunk

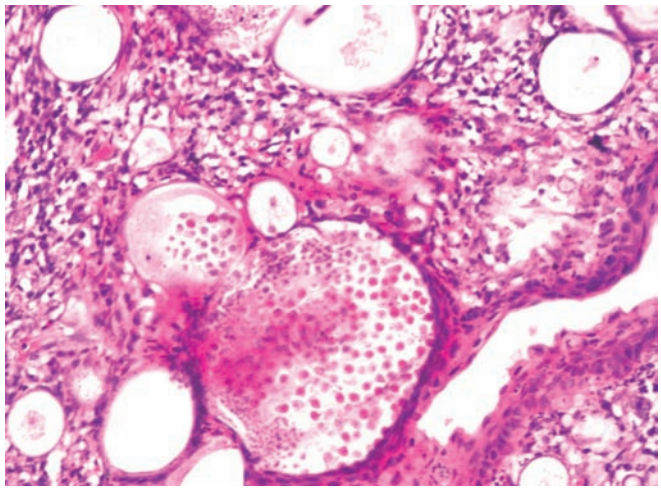

Fig. 6: Hematoxylin and Eosin stained section demonstrating the sporangia in a fibromyxoid stroma containing polymorphs and eosinophils

showed no abnormality. Serological tests for HIV and syphilis were negative.

Tissue was excised from all the sites mentioned by electocoagulation and sent for histopathological (HP) study, which showed foreign body giant cells bloated with engulfed sporangias and multiple sporangia with endospores in a fibromyxomatous stroma containing chronic inflammatory cells (Fig. 6).

A final diagnosis of nasal rhinosporidiosis with cutaneous dissemination was made. The patient was advised to take Dapsone 100 mg orally daily for 6 months and discharged with advice for regular follow-up to detect early recurrences.

DISCUSSION AND CONCLUSION

Rhinosporidiosis is a chronic granulomatous disease caused by an organism first described by Malbran in 1892 as sporozoan, as protozoan by Seeber, and phycomycetes by Ashworth in 1923.[1] Its taxonomic position was unclear, but a recent isolation of a prokaryotic cyanobacterium *Microcystis aeruginosa* by Ahluwalia et al[2] has almost ended its etiological controversies. The presumed mode of transmission is from natural aquatic habitat and through traumatized epithelium,[3] most commonly nasal mucosa. Mode of spread is by three means: Auto-inoculation, hematogenous, or direct inoculation.

In our case, nasal as well as several disseminated cutaneous lesions, which are anatomically unrelated, was due to autoinoculation and hematogenous spread.[4,5]

Although, diagnosis can be made by simple aspiration cytology and microscopic examination with 10% KOH, a definitive diagnosis is only by histopathological study of excised tissue. Role of immunosuppression is doubtful. Several authors have reported disseminated lesions in immunocompetent patients.[6,7]

Disseminated lesion has been reported in various parts of the body, such as trachea, bone, penis, rectum, and vagina.[8,9]

Lipoma, liposarcoma, subcutaneous aspergillosis were considered as differential diagnosis. But patient's

history of bathing in a pond shared with cattle, nasal growth, and the regional origin of the patient and earlier experience of dealing such cases suggested and histopathology slide confirmed the diagnosis.

Treatment is excision and electrocoagulation. After nasal mass and scalp lesion excision, patient was referred to the general surgery department for excision of other lesions over chest, back, and hand. Oral Dapsone (100 mg) daily was started immediately, which helps in arresting maturation of sporangia and promoting stromal fibrosis.[6,10]

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