RHINOSPORIDIOSIS: AN UNUSUAL PRESENTATION , (A Case Report)

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Introduction

Rhinosporidiosis is a rare granulomatous disease caused by spore-bearing fungi-*Rhinosporidium seeberi* or *Rhinosporidium kinealyi* [1]. The principal site of infection is the nasal mucosa. The disease is endemic in coastal areas of India and Sri Lanka. The diagnosis is made by observation of characteristic sporangia. The management presents a challenge because of the frequent recurrences.

Case Report

A 38-year-old railway electrician, resident of Pune, presented with history of a progressive painless bosselated swelling over dorsum of right hand. The swelling was present for last 18 months the patient also had a feeling of nasal blockage for last 8 months. He was a known case of nasal rhinosporidiosis operated earlier in 1984 and again in 1991 for a recurrence. In 1993 he presented with a nodular swelling over 3rd toe of right foot and ulceroproliferative nodules over right ring finger extending on to dorsum of right hand of 1 year duration. He underwent amputation of right 3rd toe at the level of proximal interphalangeal joint and also amputation of right 4th and 5th fingers and metacarpals for this lesion.

Patient was asymptomatic till 2 months after surgery when he noticed a small growth over lower end of the scar on the dorsum of right hand. This swelling progressively increased in next 18 months to become a spherical mass 6 cm in diameter. Simultaneously he also noticed blockage of right nostril. There was no history of epistaxis or nasal discharge. Patient gave history of frequent baths in stagnant pools. The patient was also a known case of pulmonary tuberculosis since 1987 and had been on irregular treatment with antitubercular drugs in 1987, 1993 and 1995.

On examination the patient was of average built and nutrition. General examination revealed clubbing (Grade III). He had a 6x7 cm ulceroproliferative growth over dorsum of right hand overlying the lower end of old scar (Fig). There was no discharge or bleeding from the mass. It was firm, nontender,

and did not bleed on touch. It was not fixed to the underlying bone. There was no regional lymphadenopathy. Bilateral crepitations with scattered rhonchi were detected on auscultation of chest.

Fungal smear from the swelling showed characteristic sporangia and incisional biopsy from the lesion confirmed rhinosporidiosis. Bronchial lavage was negative for fungi, acid fast bacilli and malignant cells.

The patient underwent diathermy excision of the hand lesion along with excision of the nasal lesion. Postoperative fungal smears from the wound were negative for sporangia and the tissue margins were free of disease on histopathological examination. A week later he underwent electrocautery of the base and the wound was allowed to granulate. Split skin grafting was done 4 weeks later and postoperatively the wound healed well. The movements of the fingers and thumb were complete and he had a good hand grip.

Discussion

A disease of young male farmers, rhino-

Fig. 1 : Photograph showing ulceroproliferative growth over dorsum of right hand overlying the lower end of old scar.

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sporidiosis primarily affects nasal mucosa, with the second most common involvement being ocular which is by autoinoculation. Nasal disease is probably acquired by bathing or diving in muddy stagnant pools of water [2]. Lesions are also found on other mucous membranes such as those of larynx, penis, vagina, rectum and sometimes also on skin where it is presumed to have spread from a primary site on the nearby mucous membrane [3]. The clinical picture of the nasal lesion is of polypoidal masses of abundant granulation tissue which are initially sessile and later becomes pedunculated. They are friable and bleed easily.

Most investigators consider *R. seeberi* to be a fungus belonging to group *Phycomycetes* but it has not been isolated in routine culture. However, inoculation into an epithelial cell culture line produces an entire life cycle including polyps [4]. The diagnosis depends on the recognition of sporangia seen on the surface of the polyp or in tissue section. These appear as double membrane spheres which occasionally rupture liberating free spores. However, electron microscopic studies have shown structures formerly regarded as sporangia and spores to be lysosomal bodies loaded with indigestible residue [5]. Warts, hemangiomas, mucoceles, condylomata or neoplasms need to be considered in differential diagnosis of skin lesions [6].

Medical management for cutaneous rhinosporidiosis has not been described though dapson

is used with variable results. Topical amphotericin, though recommended for ocular disease, has not been tried for skin lesion. The lesion can be completely removed by surgery or by electrocautery. Surgery, with its open incisions in which spores can be implanted, is associated with increased recurrence. Surgical management, by diathermy and electrocautery of the base, has been said to prevent recurrence [7].

This case has been reported for its unusual site of occurrence, i.e. skin. We were however, unable to get the exact incidence of skin involvement in rhinosporidiosis from the available literature.

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