



ORIGINAL RESEARCH PAPER

ENT

A UNIQUE CASE OF MAXILLARY RHINOSPORIDIOSIS

KEY WORDS:
rhinosporidiosis, maxillary, rhinotomy

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ABSTRACT

Rhinosporidiosis is a chronic granulomatous disease of nasal cavity. It is prevalent in few parts of India. Here we present a case which involved the maxillary sinus with its extension to choana and nasopharynx. Mass removed by lateral rhinotomy approach. Very few articles published on involvement of maxilla and different surgical approaches were mentioned for its removal.

INTRODUCTION

Rhinosporidiosis is a chronic granulomatous infection of the mucous membranes, it involves mainly nose and nasopharynx; occasionally it involves the pharynx, conjunctiva, larynx, trachea and skin. Rhinosporidium seeberi was first described by J.R. Seeber in 1900 and later exhaustively investigated by J.H. Ashworth in 1923 [1]. Here we are presenting a unique case of maxillary rhinosporidiosis. A literature search was done on maxillary involvement and its surgical approaches.

CASE STUDY

A 28 yr old male patient presented with complaint of swelling over right cheek region since 6 month. He also presented with mass in right nasal cavity and difficulty in breathing. He has history of occasional nasal bleed. On examination diffuse swelling present over right cheek region. Nasal broadening was present. Pinkish mulberry like mass was present at right anterior nares (Figure 1 A). Left nasal cavity was clear. On oral cavity examination mass was hanging at nasopharynx region. Ear and neck examination were normal.

Patient was advised for CT scan of face and neck. On contrast study large non homogenously enhancing soft tissue mass lesion seen in right nasal cavity and maxillary sinus. Mass was eroding anteromedial wall of right maxillary sinus (Figure 1 B). Focal erosion also seen in medial aspect of right orbital floor. No evidence of intra ocular extension seen. Non homogenously enhancing mass extending upto subcutaneous plane in right side of nose. Mass is seen extending bilateral choana, nasopharynx, oropharynx and upto the level of epiglottis suggestive of sinonasal mass (Figure 1 C).

On the basis of clinical examination and CT findings provisional diagnosis of Right maxillary sinus and nasopharyngeal Rhinosporidiosis was made.

Patient was planned for Excision of Rhinosporidiosis mass under GA. A lateral rhinotomy incision was given on right side (Figure 2 A). Anterior maxillary wall found eroded. Right nasal cavity and maxillary sinus were opened. Soft pinkish pedunculated mass was completely occupying whole maxillary sinus extending to choanal region. Pedicle was cauterized and mass completely removed. Hemostasis achieved. Right nasal packing done. Specimen sent for histopathology examination.

On gross examination mass was reddish, fleshy and granular in appearance (Figure 2 B). On microscopic examination tissue lined by pseudo stratified ciliated columnar epithelium with focal squamous metaplasia and papillomatosis seen. Subepithelium showed sporangia having immature and mature spores with surrounding mixed inflammatory infiltrate confirmatory to rhinosporidiosis (Figure 2 C).

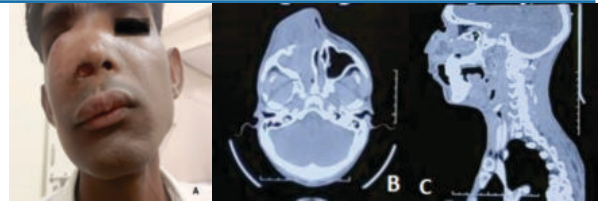


Figure 1: (A) External facial Appearance, (B) CT PNS Axial cut showing subcutaneous involvement and erosion of anteromedial wall of right maxilla. , (C) CT PNS Saggital cut showing soft tissue mass lesion at nasopharynx

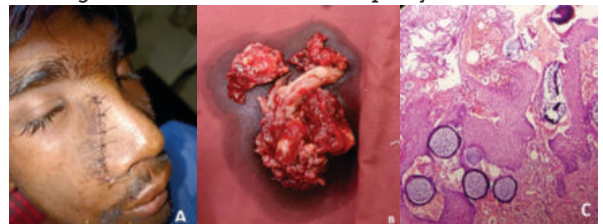


Figure 2: (A) Postoperative picture of lateral rhinotomy incision, (B) Gross appearance of mass, (C) Microscopic Picture

DISCUSSION

The etiologic agent of rhinosporidiosis, Rhinosporidium seeberi, is an enigmatic microbe that has been difficult to classify. Recently, R. seeberi has been considered a fungus, but it was originally thought to be a protozoan parasite [1]. It is the first known human pathogen from a novel clade of aquatic protistan parasites that form a branch in the evolutionary tree near the animal-fungal divergence [2].

This disease can involve almost any part of the body. Various papers have been published on its involvement. In present case involvement was mainly in maxillary sinus which was extending towards nasal cavity and nasopharynx. Very few cases have been published on involvement of maxillary sinus [3,4,5,6].

Surgical excision and cauterization is the mainstay of treatment. We did lateral rhinotomy approach for the complete removal of the mass. In our case mass was eroding antero medial wall of right maxillary sinus and subcutaneous region of nose.

Kazi et al mentioned gross destruction of bony walls of maxilla with soft tissue mass in the sinus. The provisional diagnosis of Maxillary osteomyelitis secondary to odontogenic infection was interpreted as an erosive mass of maxillary sinus. They excised the mass along with part of palate and teeth. Post surgical maxillary obturator was provided for the defect. Histopathology confirmed as rhinosporidiosis [3]. Shah mentioned Caldwell Luc approach for nasal and maxillary mass [4]. Gurkan et al mentioned a rare case of nasal

rhinosporidiosis eroding anterior wall of maxilla. They mentioned transantral transnasal approach for the removal [5].

In a study by Shetty et al two cases of maxillary involvement were presented. They did Le-Fort approach for recurrent sinonasal and nasopharyngeal rhinosporidiosis mass. It is main approach for viewing both maxillary sinuses and the nasal cavity. Any tumor that extends into the maxillary sinus, sphenoidal sinus, or nasopharynx requires excision with the Le Fort I approach [6].

Recurrence is quite common in the rhinosporidiosis due to autoinoculation in adjacent traumatized mucosa. Nowadays laser surgery, cryosurgery, coblation, and harmonic scalpel are used for the surgery.

CONCLUSION

Very few papers on Rhinosporidiosis of maxilla and its surgical method have been published in literature. In our case gross facial disfigurement was present due to anterior displacement by sinonasal mass. No such disfigurement due to rhinosporidiosis was previously reported. Various surgical approaches have been mentioned according to involvement and extension of disease. This is the surgeon's perspective to choose best suitable surgical technique.

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