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Research Article

A RARE CASE OF EPIDERMAL INCLUSION CYST IN MAXILLARY SINUS

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A R T I C L E I N F O

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A B S T R A C T

Epidermal Inclusion Cyst is a Sebaceous/ Epidermoid Cyst formed due to trauma or may be congenital. We report a rare case of Epidermal Inclusion Cyst in the Maxillary Sinus in a healthy 27 year old male patient with complaints of swelling in the right Maxillary Sinus region with history of pus discharge from Right Maxillary Vestibular region with foul smell since two months. To our knowledge there is no reported case of Epidermal Inclusion Cyst in Maxillary Sinus. The cyst was removed by enucleation through standard elliptical incision and a regular follow-up of the same has been uneventful till date.

INTRODUCTION

EpidermalInclusion Cyst (EIC) may occur anywhere in the body, their occurrence is most frequently on the face, scalp, neck, trunk, genitals, fingers, palms and soles. They are rarely found in the paranasal sinuses. It ranges in size from few millimetres to few centimetres and it originates from the follicular infundibulum containing a cheesy, malodorous mixture of degraded lipid and keratin.

EICs are usually found incidentally. They present as firm non-tender lump. The necrotic debris released in case the cyst ruptures can mimic an inflammatory response to infection. Rarely EIC or Epidermoid Cyst can undergo malignant degeneration to Squamous Cell Carcinoma.They are thought to occur as a result of

- Traumatic / Surgical implantation
- Occlusion of the pilosebaceous unit
- Congenital rest of cells
- Human Papillomavirus type 57 or 60

Radiographically in all modalities they appear as well circumscribed masses. Ultrasonography renders a well circumscribed hypoechopic mass while in CT the density of EIC is similar to that of water. Imaging on MRI is similar to that of CNS epidermoid cyst or cholesteomas.

Case Report- A 27-year old male patient came with a complaint of foul smelling pus discharge from right upper vestibular region since 2 months.

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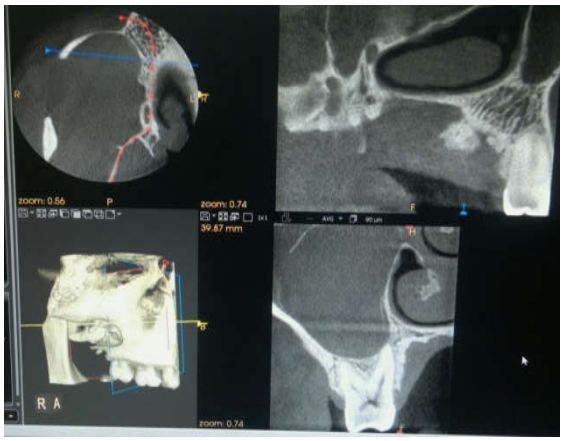
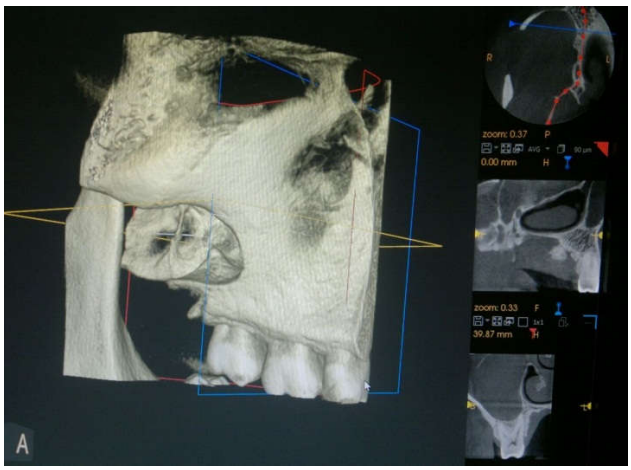
On examination mild extraoral swelling was noted which was non-tender. Intraorally the surface of the upper right buccal vestibule showed the presence of sinus opening which discharged foul smelling soft cheesy material with obliteration of the vestibule extending from right second premolar to second molar. Maxillary right third molar was missing.

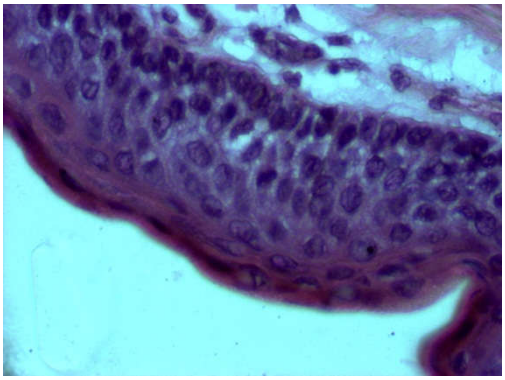
CBCT of Maxilla revealed oro-antral communication between root tip of upper right second premolar, first molar and floor of maxillary sinus. The floor of maxillary sinus showed erosion and radiopacity in the sinus was noted in CBCT. Thereafter, the patient underwent enucleation of cystic mass. An incision was made in the right upper buccalvestibular region and the mass of approximately 4cm *3cm was excised and primary wound closure was done. The mass was a thick whitish material which was thereafter sent for histopathological examination. The patient was on regular follow up.

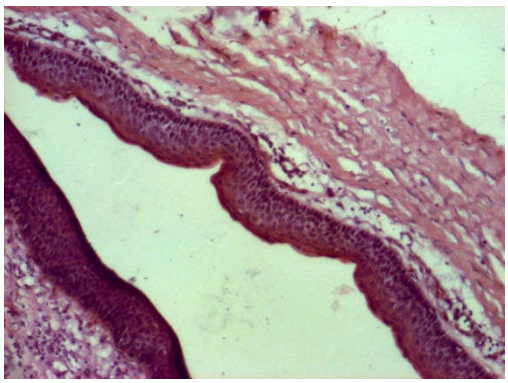




Histopathology

Histopathological finding was consistent with Epidermal Inclusion Cyst. Section studied show cyst wall lined by well-defined stratified squamous epithelium. Focal ulceration and granulation tissue with dense chronic inflammation is seen. Wall showed lamellar bone. External surface was lined by respiratory epithelium. No evidence of tuberculosis or malignancy was found. The final histopathological diagnosis was given as Epidermal Inclusion Cyst of Maxillary Sinus.





DISCUSSION

Epidermal Cysts are also called as Epidermoid Cyst. Epidermal Cyst refers to those cysts which occur due to implantation of epidermal elements in the dermis. EIC may be present congenitally or can be acquired. The congenital forms are due to trapping of ectodermal tissue in lines of fusion. This takes place during 3rd to 5th week of gestation. Acquired cysts, which are known as EICs, arise from inclusion of epidermal structures in the dermis and other deeper tissues following trauma in which the epidermal elements are pushed into the deeper tissues causing formation of a cystic structure. The trapped epidermis acts like a skin graft and starts producing keratin forming a cyst. EIC can also be described as a dermal cystic enclosure of keratinizing squamous epithelium that is stuffed with keratin debris. EIC can also occur in deeper tissue other than dermis which are usually secondary to biopsy and surgery. In our case there is no history of trauma, congenital cause was ruled out due to age of presentation. Histologically EIC has squamous epithelium lining containing keratin debris, sometimes depicting granulomatous foreign body giant cell reaction due to rupture of cyst. Treatment for this lesion is complete excision.

CONCLUSION

Maxillary Sinus Epidermal Inclusion Cyst is rare. The initiating trauma may be negligible and be evident only on thorough history. In our case a congenital cause was ruled out and there was no history of trauma but the clinical, radiographic and histopathological findings point towards an EIC. Lesion was excised; patient was followed up for five months with no recurrence.

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