



IDIOPATHIC BILATERAL ANTRAL EXOSTOSES: A RARE CASE REPORT

Tengchin, Wang

Department of otolaryngology, Tainan municipal hospital (MANAGED BY SHOW CHWAN MEDICAL CARE CORPORATION), Tainan city, Taiwan

Introduction

Maxillary sinuses exhibit significant anatomic structures that are important to assess prior to implant placement. Reported an incidence of maxillary sinus exostosis is 0.9% in panoramic radiographs [1]. Paranasal sinus exostoses have been recognized as a complication of nasal irrigation with cold solution after nasal surgery. However, a few reported cases are idiopathic without history of nasal surgery and receiving nasal irrigation.

Case report

A 26-year-old female patient without relevant background in medical history, referred from dentistry clinic due to calcified lesion found by panoramic radiograph incidentally. Under the suspicion of ectopic teeth in the maxillary sinus, computed tomography was performed. The images exhibited both exostoses in each maxillary sinus. At the left side, a pedicled exostosis was observed in maxillary sinus, over the medial wall (Figure1) . At the right side, an irregular, corticalized exostosis was identified with its origin between the boundary of the lateral antral wall and sinus floor (Figure2). The patient had not reported any symptoms of pain, discomfort, or signs of sinus inflammation. The patient asserted that she had not undergone sinus or nasal surgery, and not having used nasal irrigation treatment ever in her life. Finally, the diagnosis of idiopathic bilateral antral exostoses is made, and there is no further treatment for this patient.

Discussion and conclusion

Exostoses are the outgrowths of normal compact and cancellous bone. Antral exostoses has been firstly reported in 2010 in otolaryngology literature [2]. The differential diagnosis should be made from pathologies such as anthroliths and osteomas located in the maxillary sinuses to avoid the unnecessary surgical procedures [1]. Antral exostoses are rare bone hyperplasias, and their prevalence has been reported as 0.9% [1] and 2.6% [3]. There is a possible correlation between cold temperatured nasal irrigation, cold-water swimming, and exostoses. Antral exostoses have been found generally as unilateral. The average size of these lesions 4.7 mm X 7.4 mm. 55% of exostoses are located on the posterior wall and floor of the maxillary sinus and 10% with boundary of medial and anterior walls [1]. Antral exostoses generally do not require surgical approaches due to biopsy is not usually suggested, unless they cause clinical symptoms and lead to sinonasal obstruction.

The present case are considerably rare within previous published cases because there was no complaint for the case and no history of previously reported-related factors. In addition, the lesions were observed bilaterally in this report, and this finding is relatively rare. Although antral exostoses are rare conditions, their differential diagnosis should be carried out from other pathologies to avoid the unnecessary surgical procedures.

Reference

1. Ohba T, Langlias RP, Langland OE. Antral exostosis in panoramic radiographs. *Oral Surg Oral Med Oral Pathol* 1993;76:530–3
2. Ramakrishnan JB, Pirron JA, Perepletchikov A, Ferguson BJ. Exostoses of the paranasal sinuses. *Laryngoscope* 2010;120:2532-4. †
3. Lana JP, Carneiro PM, Machado Vde C, de Souza PE, Manzi FR, Horta MC. Anatomic variations and lesions of the maxillary sinus detected in cone beam computed tomography for dental implants. *Clin Oral Implants Res* 2012;23:1398-403.



Figure 1: (a) Axial, (b) coronal. Pedicled, irregular shaped exostosis was observed over the medial antral wall

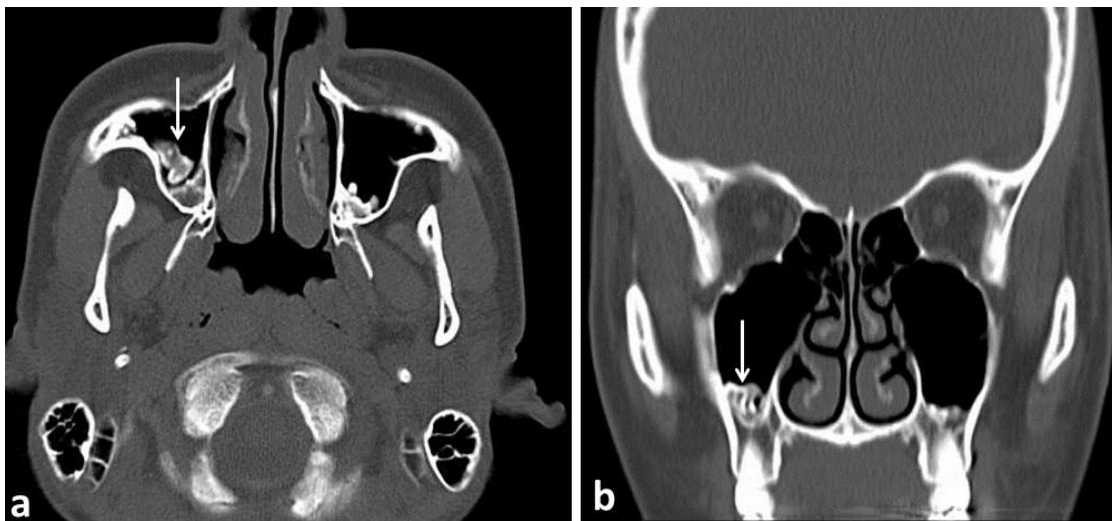


Figure 2: (a) Axial, (b) coronal. Irregular and corticalized exostosis was identified with its origin between the boundary of the lateral antral wall and sinus floor