IJIRR

International Journal of Information Research and Review
Vol. 04, Issue, 10, pp.4623-4624, October, 2017

CASE REPORT

CHOLESTEATOMA OF PARANASAL SINUS MIMICS MALIGNANT TUMOR- A CASE REPORT

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ARTICLE INFO

Article History:

Received 29th July, 2017
Received in revised form
06th August, 2017
Accepted 13th September, 2017
Published online 30th October, 2017

Keywords:

Cholesteatoma,
Paranasal sinuses,
Pultaceous cheesy material.

ABSTRACT

Intriduction: A cholesteatoma is a cystic keratin-filled mass lined with stratified squamous epithelium. Paranasal sinus cholesteatoma is a rare clinical entity with only a few cases reported in the literature.

Case Report: We describe a rare case of cholesteatoma in the maxillary and ethmoid sinus presenting with blood-stained nasal discharge and nasal obstruction refractory to medical treatment. The patient was treated by functional endoscopic sinus surgery to remove the cholesteatoma completely.

Final Consideration: Through the results obtained in this study, corroborates that it is necessaryto create a large antrostomy to ensure completely removing the cholesteatoma and facilitate to easier follow-up.

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INTRODUCTION

A cholesteatoma is a cystic keratin-filled mass lined with stratified squamous epithelium that partially or entirely replaces the normal mucous membrane. Most cholesteatomas are observed in the middle ear or mastoid cavity. However, cholesteatomas in the paranasal sinus are rare. Only few cases have been reported in the literature.

Case Report

A50 years old woman complained of foul smelling, blood-stained nasal discharge from and nasal obstruction in the right nasal cavity for 3 months. She had been treated with antibiotics, steroids, and irrigation, but her symptoms persisted. When she visited our department, her appearance was normal. Using anterior rhinoscopy, we found reddish granular masses occupying the entire right nasal cavity (Figure 1a). Fiberscopy revealed an easy bleeding tendency and whitish necrotic material. Computed tomography (CT) showed a relatively homogeneous, expansile lesion in the right maxillary sinus, which pushed the septum to the opposite side and eroded the right medial maxillarywall.The opacification of the frontal and ethmoid sinus was notable (Figure 1b), andthe serum squamous cell carcinoma (SCC) antigen titer was elevated.

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Because of these characteristics, sinonasal malignancy was highly suspected. In response, nasal endoscopic biopsy was performed under local anesthesia. The granular mass resulted in a large autoantrostomy, where a cyst containing gray pultaceous cheesy material was clearly visualized to fill the antrum (Figure 1c). The thin cystic wall could be easily peeled from the surrounding tissue without obvious bleeding. Finally, the antrum was completely explored without residual lesions. A histopathological examination indicated that tissues were lined by the respiratory epithelium with lamellar layers of keratin; thus, the diagnosis of cholesteatoma was confirmed. Magnetic resonance imaging (MRI) conducted 1 month later revealed only mild mucosal edema without residual lesions (Figure 1d), and the reevaluated serum SCC antigen titer was normal. The sinusal mucosa was intact, and the large autoantrostomy was persistent 3 months postoperative (Figures 1e and f).

Final Consideration

Cholesteatoma of the paranasal sinuses is a rare disease that mostly affects the frontal sinus. Maxillary sinus cholesteatoma is extremely rare, and only 10 cases have been reported.[1] It is difficult to make the diagnosis without a histopathological examination. However, medical history, physical examination findings, and imaging studies can provide reasonable suspicion[2]. Symptoms may occur as a result of the interplay between bone erosion and infection, are determined by the anatomic relationship of the maxillary antrum.

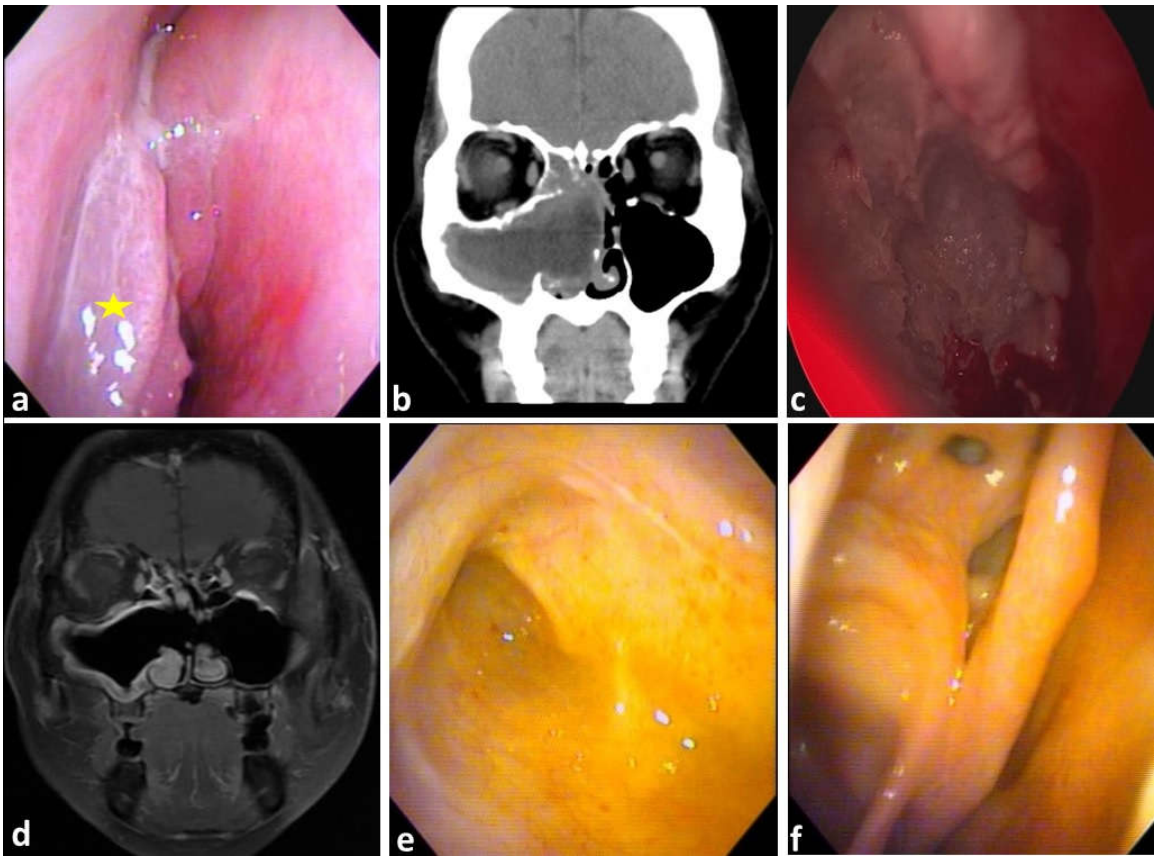

Figure 1. (a) Granular lesion (yellow asterisk) in the right nasal cavity. (b) The lesion involved the right maxillary and ethmoid sinus with a central hypodensity content. The destruction of the medial antral wall was notable, and the septum was pushed toward the opposite side. (c) The gray whitish substance was exposed and loosely filled the entire antrum. (d) MRI exhibited only mild mucosal edema without residual lesions. (e) The antral mucosa was intact. (f) The large antrostomywas persistent for surveillance

On radiological examination, CTrevealed a relativelynonenhancing, homogenous, expansile lesion withosteoclasia in the surrounding area; intramaxillary sinus mucocele or fungal sinusitis yielded similarfindings. MRI exhibiteda fairly low signal intensity on T1-weighted images and a high signal intensity on T2-weighted images (Valvassori). Differential diagnosis revealed cholesteatoma of the paranasal sinuses, including non-neoplastic and neoplastic lesions. Imaging revealed features identical to those of allergic fungal sinusitis and mucocele. A highly aggressive bony destruction led to the suspicion of malignancies, and the granular appearance with necrotic debris (in the case of a high SCC titer) should be distinguished from inverted papilloma or SCC. The treatment of cholesteatoma consists of the complete removal of the cholesteatoma and wrapping sac; however, there is no general consensus on the treatment of intranasal cholesteatoma. Typically, complete excision by using the Caldwell–Luc approach is recommended. However, in the present case, the content was loose and its sac could be easily peeled; therefore, endoscopic sinus surgery was applied. Surgery aims to create a large antrostomy to ensure complete removal and easier follow-up (Viswanatha, 2007). In conclusion, cholesteatoma of the sinus is rare and can sometimes mimic malignancy.

The differential diagnosis of a slowlyexpansile lesion in the sinus, particularly with bony destruction, should indicate this disease. The complete removalof the cholesteatoma sac is necessaryto prevent cholesteatomarecurrence

Acknowledgements

We acknowledge Wallace Academic Editing for editing this manuscript.

REFERENCE

Hartman, J.M., Stankiewicz, J.A., Maywood, I.L. 1991. Clesteatoma of the Paranasal Sinuses: Case Report and Review of the Literature. Ear, *Nose & Throat Journal* 70,719-725.

Min, H.J., Shin, J.H., Kim, K.S. 2016. Cholesteatoma of Maxillary Sinus: What Is the Best Surgical Approach?.The *Journal of Craniofacial Surgery*, Jun,27(4),963-966

Valvassori, G.E. Imaging of the Temporal Bone. In: Glasscock, M.E. and Gulya, A.J.,Eds., Shambaugh's Surgeryof the Ear, 5th Edition, B C Decker, Hamilton, 227-259.

Viswanatha, B., Nayak, L.K., Karthik, S. 2007. Cholesteatoma of the maxillary sinus. *Ear Nose Throat J.*, 86(6):351-3.

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