ABSTRACT

We report a case of a 32-year-old man with frontal pressure/pain and proptosis. His ENT exam and nasal endoscopy were normal. CT of paranasal sinuses revealed a large mass occupying the right frontal sinus with destruction of anterior and posterior walls of the frontal bone.

The patient's first approach was an unsuccessful endoscopic surgery. Therefore an extended Lynch incision was made, with extraction of a cheese-like material, with a pearly aspect. Histopathology revealed to be cholesteatoma.

The signs and symptoms were resolved with the removal of the tumor.

INTRODUCTION

Cholesteatoma was first described in 1829 by Cruveilhier, as “tumeur perle” and after named cholesteatoma by Müller in 1838. It is a misnomer since the tumor is, histologically, not made of cholesterol but of keratin. Cholesteatoma is a common pathology, normally found in the middle ear and in other areas of the temporal bone. In the ENT area, other locations are rather rare, being the sinuses one of them. In the English literature there are few cases reported of this disease in the frontal sinus. Facial asymmetry, proptosis, frontal pressure or pain, visual impairment are some of the sings and symptoms that the patient can present.

OBJECTIVES

The objectives of our paper is to describe a case of frontal cholesteatoma and review the characteristics of this pathology.

CASE REPORT

We report a case of a patient of 32 years-old, male, whose first symptoms were frontal pressure and proptosis of the right eye which was displaced downward. He had no visual symptoms or eye movement disorder. There was a normal ENT exam and normal nasal endoscopy. A CT of the paranasal sinuses revealed a large mass on the right frontal sinus, already with destruction of the anterior and the posterior walls of the frontal bone.

An endoscopic approach of the frontal sinus was attempted with no success. Therefore another approach was attempted, an external approach, using an extended Lynch incision. By this method we were able to clear out the frontal sinus, obtaining material for pathology. What came out was cheese-like debris with a pearly aspect. The histopathological analysis revealed cholesteatoma of the frontal sinus. The signs and symptoms were resolved with the removal of the tumor.

DISCUSSION

Cholesteatoma is known to be a common disease of the middle ear, being a benign but locally invasive tumor. There are very few cases on the literature of cholesteatoma on the sinuses, being more reported on the frontal sinus.

There are four theories that support the pathogenesis of the paranasal sinus cholesteatoma. The first one is the congenital theory, i.e. primary cholesteatoma, which supports that misplaced epithelial cells remain during the formation of the face. This is one of the most excepted theories, since most of the patients don't have any other risk factors. The secondary cholesteatoma have three theories: implantation of epidermal cells after surgery or trauma; migration of squamous epithelium to an area not normally lined by this type of epithelium; and epithelial metaplasia following chronic inflammation.

The cholesteatoma is a benign tumor, but it can become locally aggressive. This happens because not only the tumor promotes erosion on bone by pressure but also by the production of proteolytic substances, invading the orbit and the central nervous system.

REFERENCES