INTRODUCTION

Papillomas are benign, however locally invasive tumors normally originated in the larynx and nasosinusal tract. These tumors can be described from their specific histological and morphologic characteristics. Recurrence is common if excision is inadequately performed. Tumors with similar histological and biological characteristics may occur less frequently in areas outside the nasosinusal tract such as pharynx, lacrimal sac and middle ear. Middle ear and mastoid involvement is explained by two mechanisms: (1) direct extension to the nasosinusal cavity via the eustachian tube or (2) primary involvement of the middle ear secondary to metaplastic changes to the mucosal lining.

As these tumors slowly involve the middle ear, there are no estimates on the incidence of these lesions in this particular site and only a few reports in the literature. This paper aims to report a case of middle ear papilloma in a patient with no account of previous nasal disease who evolved to facial palsy.

The patient underwent radical mastoidectomy and has been asymptomatic after six months of follow-up.

CASE REPORT

J.P.A., female, 27 years of age, Cauca- sian, born in Salvador, went to the otolaryn- gology service of the Professor Edgard Santos Hospital at the Federal University of Bahia complaining she has had persistent right-side otorrhea for the past 12 years associated to hypoacusis and ipsilateral Hamming of Otalgia, otorragia, and vertigo were not present. She evolved to total right-side facial palsy about 10 years ago, a condition still present at the time of surgery. No references were made to nasal or oropharyngeal problems.

Otoscopic findings revealed no al- terations in the left ear, whereas the right ear presented ample central perforation of the tym- panic membrane, retraction poutch in the attic and granulous tissue in the middle ear mucosa. The patient did not present right eye closure or ipsilateral lip commissure. Examination of the nose and oropharynx did not show noteworthy manifestations.

Tonal and vocal audiometric tests were performed on August 16, 2004 and the patient’s ear showed no alterations, while the right ear displayed deep mixed auditory loss. A CT scan of the temporal bones (Figure 1) done on June 15, 2004 showed signs of an opaque middle ear cavity and mastoid cells to the right with no evidence of aggressive disease (osteoclastic lesion).

The patient also underwent nasal exam- ination with a 30-degree rigid endoscope and no evidence of nasal papilloma or any other relevant alterations were found.

The patient underwent right-side radical mastoidectomy on August 21, 2004. During the procedure brittle tissue involving the mastoid was removed, fascia of the temporal muscle placed over the remaining cavity, and broad metaplasia performed.

The pathologist’s report (Sep. 20, 2004) indicated the presence of papilloma with hyperkeratosis.

The patient developed right-side inter- mittent otorrhea only for the first two months of post-op follow-up. Marked improvement on facial palsy was reported, mainly in relation to right-side eye closure, however little change was noticed on the lip commissure. Right ear otoscopic examination identified broad metaplasia and a dry, fully epithelialized mastoid cavity, satisfactory graft take and no crusts.

DISCUSSION

Papillomas are benign epithelial tumors that involve the nasosinusal tract and may be grouped into three main categories: (1) inverted (endophytic), (2) cylindrical (fungiform) (exophytic). They may relapse when not properly excised and, in a few rare occasions, might evolve towards malignancy in the form of post-op follow-up. Marked improvement on facial palsy was reported, mainly in relation to right-side eye closure, however little change was noticed on the lip commissure. Right ear otoscopic examination identified broad metaplasia and a dry, fully epithelialized mastoid cavity, satisfactory graft take and no crusts.

Although rare, papillomas may occur outside the nasosinusal tract, in areas such as the nasopharynx, lacrimal sac and middle ear. Only very few cases of middle ear involvement have been reported. Wenig reported on a series of five patients diagnosed with middle ear papilloma. All patients were females with reported symptoms on the left ear. The most frequent complaint was reduced auditory acuity in the involved ear. All shared previous or concomitant history of chronic otitis media in agreement with the case reported here, although none of their patients presented facial palsy.

Primary differential diagnosis is done with middle ear adenoma. Differently from ade- nomas, papillomas are not a disease of glandular pattern, nor do they show the cytomorphic characteristics seen in adenomas. Reactivity to immunohistochemistry with epithelial markers such as cytokeratin cannot differentiate papillomas from adenomas, as both are c ytoke- ratin-reactive. Other middle ear tumors such as juvenile nasopharyngeal angiofibromas, acoustic neuromas, and meningiomas do not pose diagnostic confusion with papilloma as they present specific histomorphologic characteristics.

The treatment for papillomas is emi- nently surgical, and tympanomastoidectomy is the procedure of choice. More conservative procedures such as myringectomy and simple excision were proven ineffective in controlling the disease, as reported by Wenig. As recurrence rates may be high for this disease, shown by Wenig, radical mastoidectomy must be consid- ered as the initial approach, as done in the case reported in this paper.

REFERENCES

1. Filippis C, Marioni G, Tregnaghi A, Marino F, Gaio E, Staffieri A. Primary inverted papilloma of the middle ear and mastoid. Otol Neurotol. 2002 Jul;23(4):555-9.
2. Wenig BM. Schneiderian-Type Mucosal Papillomas of the Middle Ear And Mastoid. Ann Otol Rhinol Laryngol 1996 105(3):226-33.
3. Jones ME, Wackym PA, Said-Al-Naief N, Brandwein M, Shanti CM, Son PSM, Zhang DY, King WA. Clinical and molecular pathology of aggressive Schneiderian papillomas involving the temporal bone: Head Neck Surg. 1998 Jan;20(1):85-98.
4. Kaddour HS, Woodhead C. Transitional papilloma of the middle ear. J Laryngol Otol 1992 Jul;106(7):628-9.
5. Hyams VJ, Batsakis JG, Michaels L. Papilloma of the upper respiratory tract. In: Hyams VJ, Batsakis JG, Michaels L, eds. Tumors of the upper respiratory tract and ear. Fascicle 25, second series. Washington, DC: Armed Forces Institute of Pathology 1988:54-51.