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Otorinolaringologia 2018 December;68(4):158-60
DOI: 10.23736/S0392-6621.18.02171-9

CASE REPORT

Oncocytoma of the lacrimal sac

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ABSTRACT

Acquired nasolacrimal duct obstruction is often caused by chronic inflammation. Rarely, lacrimal sac tumors are a cause of nasolacrimal duct obstruction. Such tumors include: adenocarcinomas, adenoid cystic carcinomas, squamous cell carcinomas, lymphomas, pleomorphic adenomas and oncocytomas. Oncocytomas of the lacrimal sac are rare with very few cases documented in the recent literature. Oncocytoma is not routinely found in other cutaneous locations, and it may cause diagnostic confusion for those not familiar with it. Therefore, the aim of this article is to report the management of a patient affected by an oncocytoma of the lacrimal sac.

(*Cite this article as:* Brucoli M, Magnano M, Boffano P, Mola P, Benech R, Benech A. Oncocytoma of the lacrimal sac. Otorinolaringol 2018;68:158-60. DOI: 10.23736/S0392-6621.18.02171-9)

KEY WORDS: Nasolacrimal duct - Lacrimal duct obstruction - Oncocytoma.

Acquired nasolacrimal duct obstruction is often caused by chronic inflammation. Rarely, lacrimal sac tumors are a cause of nasolacrimal duct obstruction. Such tumors include: adenocarcinomas, adenoid cystic carcinomas, squamous cell carcinomas, lymphomas, pleomorphic adenomas and oncocytomas.[1-9] Oncocytomas of the lacrimal sac are rare with very few cases documented in the recent literature.[1-5]

Oncocytoma is not routinely found in other cutaneous locations, and it may cause diagnostic confusion for those not familiar with it.

Therefore, the aim of this article is to report the management of a patient affected by an oncocytoma of the lacrimal sac.

Case report

A 80-year-old man presented to our hospital with discomfort and epiphora in the left eye. Following the execution of a CT, he was found to have a mass in correspondence of the left lacrimal sac with erosion of the nearby bone (Figure 1).

An incisional biopsy was performed with a first diagnosis of oncocytoma. Therefore, in agreement with the patient, endoscopic surgery was performed under general anesthesia. The inferior turbinate, that appeared to be involved by the neoplasm was removed, together with the uncinate process and a portion of the ethmoid to obtain an *en bloc* resection of the lesion.

Histopathological examination of the left lacrimal sac confirmed the presence of oncocytoma. Immunohistochemical staining revealed immunoreactivity for p-63, Actin, and S-100. Postoperative course was uneventful. The patient did not suffer from epiphora anymore. Six months later, the patient performed a CT scan (Figure 2) that confirmed the optimal healing and the absence of recurrence, that was also clinically confirmed.

Discussion

Primary nasolacrimal duct obstruction usually presents with symptomatic epiphora. Chronic inflammation and fi-

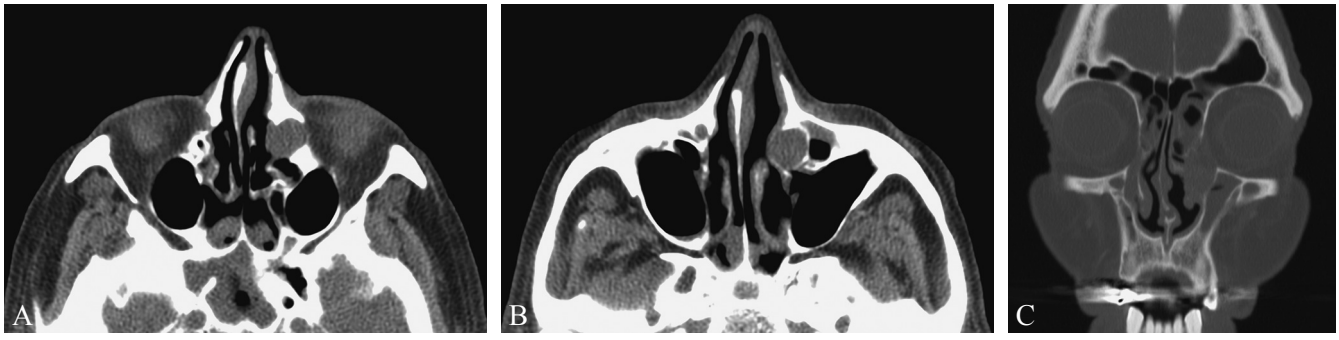

Figure 1.—Axial (A, B) and coronal (C) CT images showing the a mass in correspondence of the left lacrimal sac with erosion of the nearby bone.

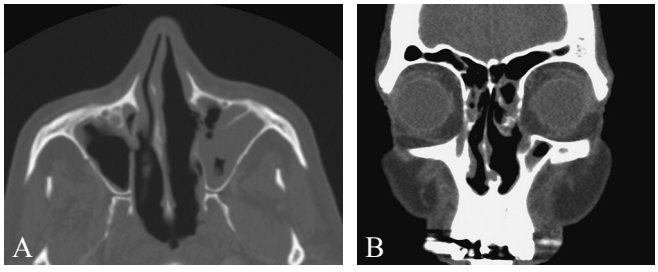

Figure 2.—Axial (A) and coronal (B) postoperative CT images 6 months after surgery confirming the optimal healing and the absence of recurrence.

brosis can cause nasolacrimal duct obstruction. Tumors of the lacrimal sac are rare, majority of these being epithelial in nature. Oncocytomas of the lacrimal sac are even more rare and account for 3.5% of all lacrimal sac neoplasms.[1-5]

Oncocytomas are composed of large oval epithelial cells with eosinophilic granular cytoplasm, rich in mitochondria, and with a round to oval paracentral nucleus. The nature and function of oncocytes is unknown, as they are believed to represent metaplastic epithelial cells due to age-induced exhaustion or excessive physiologic stress.[1, 5]

Four architectural types of oncocytomas have been recognized: solid-organized, solid-disorganized, cystic-micropapillary, and confluent-glandular. Mitoses, pleomorphism, and necrosis are typically absent.[4] Histological differentiation between metaplasia/hyperplasia and hyperplasia/adenoma is not always easy. The oncocytic epithelium expresses CK7, CK8, CK18 and CK 19 strongly, and a positive reaction for CK4, CK5/6, CK13 and CK14 has been reported too.[3]

Surgical excision is the treatment of choice, also to prevent a malignant transformation.[3-5]

Few malignant oncocytomas of the lacrimal sac have been so far described in the literature. In the majority of patients with a malignant lacrimal sac tumor the diagnosis is only made in an advanced stage of the disease. Patients with malignant tumors of the lacrimal sac have an overall mortality of 37.5%. If the nasolacrimal duct is involved, a lateral rhinotomy is recommended. However, a medial maxillectomy including part of the floor and medial orbital wall offers wider excision.[1, 2, 5]

In fact, most patients with a malignant lacrimal sac tumour receive a correct diagnosis only in an advanced stage of the disease, with a resulting overall mortality of about 37.5%.[1]

Conclusions

In conclusion, the finding of an acquired nasolacrimal duct obstruction should make the physician suspect about the possibility of an underlying lacrimal sac or nasolacrimal duct tumor. The gold standard of treatment is surgical excision. These patients require careful long-term follow-up to detect any recurrence in an early stage with the recognition that malignant transformation is possible.

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Conflicts of interest.—The authors certify that there is no conflict of interest with any financial organization regarding the material discussed in the manuscript.
Manuscript accepted: June 11, 2018. - Manuscript revised: May 24, 2018. - Manuscript received: March 29, 2018.