Oncocytoma of the Lacrimal Caruncle

C. A. García,a M. A. Melo-Uribe,b and J. A. Díazb

aPathologist, Universidad Industrial de Santander, Bucaramanga, Colombia
bPathology Resident, Universidad Industrial de Santander, Member of the Grupo Patología Estructural Funcional y Clínica at the Universidad
Industrial de Santander PATUIS, Bucaramanga, Colombia

To the Editor:

Oncocytomas are neoplasms that originate in the glandular and secretory epithelia.1 Histologically, the masses are composed of polyhedral cells of granular eosinophilic cytoplasm, which presents abundant mitochondria when examined ultrastructurally.1 In cutaneous presentations, the most common sites are the ocular caruncle and medial eyelid canthus.2

The incidence of neoplasm in the caruncle is around 3% of all tumor biopsies from ocular adnexa. Ostergaard1 published a Danish series spanning 25 years that included 574 biopsies of caruncular lesions, reporting an incidence of 2.8%. In another series of 466 biopsies of the caruncle reported by Pecorella,4 the incidence of oncocytoma was 2.7%. This tumor is more common among older adults and men than women.2


The lesion was diagnosed as an oncocytoma of the lacrimal caruncle.

Oncocytoma, also known as an oncocytic tumor or oxyphilic cell adenoma, is a tumor that originates in the cells of glandular and secretory epithelia. Oncocytomas have been
described at different sites, mainly the salivary, parathyroid, adrenal, and thyroid glands, kidneys, gastrointestinal system, and ocular adnexa.\(^1, 2\) The most common site in the eyes is the caruncle and the inner canthus of the eyelids, although the condition has also been reported in the lacrimal gland and conjunctiva.\(^6\)

Oncocytomas of the caruncle are slow-growing lesions that reach an average size of 2 to 5 mm and may be solid or cystic.\(^2\) The lesions are asymptomatic, but may occasionally be accompanied by an inflammatory response and become reddish. They are usually removed to establish diagnosis and for cosmetic reasons.\(^7\)

Histologically, oncocytomas are characterized by the presence of polyhedral cells, with abundant granular and eosinophilic cytoplasm\(^8\) (Figure 1). The cytoplasm stains with periodic acid-Schiff reagent and phosphotungstic acid (Figure 2). The cells show positive antibody reactions to low-molecular-weight cytokeratins; some of the tumor cells are diffusely positive for carcinoembryonic antigen. The cells are not immunoreactive to vimentin, CD68, S100 protein, or HMB-45 monoclonal antibodies.\(^1, 2\) Electron microscopy has shown that the cytoplasm of these cells is occupied by large quantities of mitochondria filled with crystals.\(^1\)

The differential diagnosis should be established with benign masses of inflammatory origin, papilloma, dermoid and epidermoid cyst, basal cell carcinoma, angioma, and pyogenic granuloma.\(^2\)

Oncocytomas of the caruncle rarely recur and are classified as biologically benign, although cases of malignant oncocytoma of the eyelid, known as oncocytic carcinoma, have been reported.\(^5\) These oncocytomas differ from benign oncocytomas in their cellular atypia, invasive nature, and development of recurrences and metastasis. In our patient, lesions had not recurred after 6 months of clinical follow-up.

In conclusion, our literature review did not reveal any reports of this disease in Colombia and, therefore, we present the first case of this lesion in our country. This tumor should be considered when performing the differential diagnosis of slow-growing lesions in the caruncle of elderly patients. The tumor is benign and complete resection is the definitive treatment.

**References**