INTRODUCTION

Tumors of the nasolacrimal system are rare and mostly arise from the lacrimal sac or the nasolacrimal duct (NLD). More than 400 primary lacrimal sac tumors have been reported.1 The frequency of lacrimal sac tumors is reported to be 4% of all orbital tumors, whereas 10% of the tumors of the nasolacrimal duct (NLD) are even more rare. The most common type of primary epithelial tumors is benign, and the most common malignant epithelial tumors are squamous cell carcinoma. The common canalicus and the lacrimal sac are located between the anterior and posterior limbs of the medial canthal ligament. The lacrimal sac measures 12–15 mm in length and lies within the lacrimal fossa. The anterior part of the lacrimal fossa is formed by the frontal process of the maxilla, and the posterior part is formed by the lacrimal bone.2 Intranasally, a significant (15 mm) portion of the lacrimal sac is located above the insertion of the anterior and middle turbinate.3 The sac ends in the NLDS (18–24 mm in length), which is located approximately 44 mm anterior to the maxillary sinus ostium.4 The NLD opens into the inferior meatus and a mucosal valve (Kean’s valve) prevents retrograde reflux of nasal secretions into the orbit.3 It is also 13.3 mm superior to the nasal floor and 13.4 mm posterior to the anterior attachment of inferior turbinate.5

Lesions of the nasolacrimal system are classified into epithelial and non-epithelial tumors. Primary epithelial tumors are the most common accounting for 70% of all reported cases. Followed by mixed epithelial tumors (12%).6 Malignant epithelial tumors include squamous cell carcinoma, papillomas with foci of carcinoma, transitional cell carcinomas, adenocarcinoma, mucoepidermoid, adenoid cystic carcinoma, adenocystic carcinoma, and poorly differentiated carcinomas. Squamous cell carcinoma is the most common, followed by adenocarcinoma, mucoepidermoid, adenoid cystic and poorly differentiated carcinomas. The embryogenesis and histogenesis of extraocular and postcranial Warthin’s tumors is controversial. The pathophysiology that currently explains the presence of Warthin’s tumor in periparotid locations is still under discussion. Although 8% of Warthin’s tumors occur in extraparotid locations, with cervical lymph nodes being by far the most common location,10,11 extraocular Warthin’s tumors have been reported.12

The objectives of this study are to review the literature, discuss the current advances in endoscopic techniques, and present a case of a patient presenting with nasal obstruction, considered in the differential diagnosis of a nasolacrimal duct tumor.

CASE PRESENTATION

An 87-year-old woman presented with right nasal obstruction. Examination revealed a 1 cm erythematous mass in the right nasal cavity. The lesion was excised through an intranasal Lynch incision. Histopathological evaluation of our case demonstrates the presence of bilayered epithelium lining the cystic spaces and the surrounding lymphomatous stroma. Further discussion of this case helps in understanding the nature of these tumors, the management includes excision and DCR. At 1 year postoperatively, our patient has no evidence of disease and her presenting symptoms of nasal obstruction and pain have resolved.

DISCUSSION

Although tumors of the nasolacrimal apparatus are rare, ophthalmologists will likely encounter patients who present with epiphora or unilateral pain over the nasal bridge. Therefore, familiarity with the anatomy of the nasolacrimal apparatus and the tumors arising from this structure are essential.

REFERENCE