CASE REPORT

Pleomorphic adenoma of lateral nasal wall presenting with epiphora

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Abstract

We report a rare case of pleomorphic adenoma arising from the lateral nasal wall which was incidentally detected at a very early stage. A 38-year-old man presented to the ophthalmology department with a 2-year history of epiphora from the left eye. He was referred to otorhinolaryngology department as a candidate for endoscopic dacryocystorhinostomy. Nasal endoscopy revealed a polypoid mass on the left lateral nasal wall arising near the uncinate process and protruding into the middle meatus. Endoscopic excision of the mass and a concomitant endoscopic dacryocystorhinostomy and functional endoscopic sinus surgery were done. Histopathological examination was compatible with pleomorphic adenoma having tumour-negative surgical margins. He was free from the disease 24 months after the surgery.

Keywords: Pleomorphic adenoma, Lateral nasal wall, Minor salivary glands, Endoscopic dacryocystorhinostomy, Epiphora.

Introduction

Pleomorphic adenoma (PA) is the most common benign tumour of the salivary glands. It originates mainly from the major salivary glands, especially from the parotid. Only 6-8% originate from the minor salivary glands and can be seen in any location where these glands are located, like hard and soft palate, lips, lacrimal gland, floor of the mouth, tongue, retromolar area, peritonsiller region and the nasal cavity.[1,2]

In the nasal cavity, the most common site of origin is septal mucosa. Lateral nasal wall involvement is less than 10% and nasal PA mainly originates from inferior turbinate.[3] We report a rare case of pleomorphic adenoma originating from the lateral nasal wall which was not invading the surrounding bony structures probably due to early incidental diagnosis. Though several intra-nasal pleomorphic adenomas have been described, to our knowledge this is the first reported case of a pleomorphic adenoma arising from the mucosa of lateral nasal wall over the lacrimal bone without invading the lacrimal sac.

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Case Report

A 38-year-old man presented to the ophthalmology department with a 2-year history of epiphora from the left eye. He was referred to the otorhinolaryngology department as a candidate for endoscopic dacryocystorhinostomy. Nasal endoscopy revealed polypoid mass on the left lateral nasal wall arising near the uncinate process protruding into the middle meatus and touching the middle turbinate. The mass was mobile with a smooth surface and pale appearance (Figure-1). No cervical lymphadenopathy was detected. The remainder of the physical examination was in normal limits.

Paranasal computed tomography (CT) revealed a soft-density oval mass measuring about 8mm in its greatest dimension having contact with the middle turbinate in the left nasal cavity (Figure-2). There was no invasion of the nasolacrimal tract and adjacent bony structures. Mucosal hypertrophy in the left maxillary sinus was also noticed. As such concurrent functional endoscopic sinus surgery for the left maxillary sinus was considered.

Under general anaesthesia, endoscopic excision of the mass was done, including the sub-periosteal layer with 5mm safety margins. There was no evidence of bony invasion. After removal of the tumour, corresponding lacrimal bone and frontal process of maxilla were drilled with formation of a round-shaped window 1cm in diametre until the medial wall of the lacrimal sac was exposed. A vertical incision on the medial wall of the lacrimal sac was then performed by use of a sickle knife and the greatest part of the medial wall of the lacrimal sac was removed using an angled cutting forceps. The specimen which was taken from the lacrimal tract was also sent for histopathological examination and no sign of invasion was detected. Bicanalicular intubation with a silicone stent was performed and the stent ends were sutured together intranasally. A functional endoscopic sinus surgery for the left maxillary sinus was then done. Pressed gel foam soaked with antibiotic ointment was placed over the surgical field.

Histopathological examination of the polypoid mass was compatible with pleomorphic adenoma and the surgical margins were reported to be free of tumour. He was

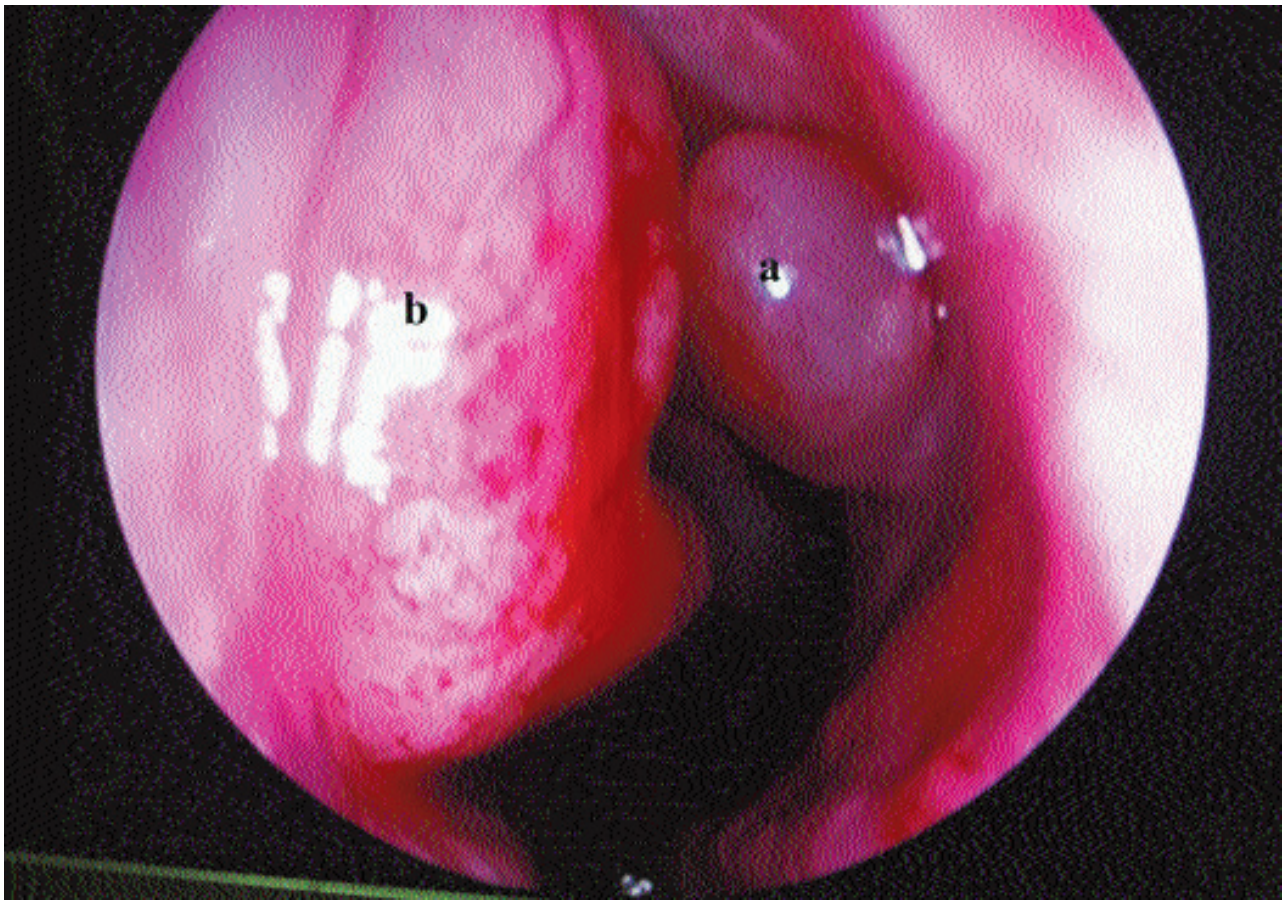

Figure-1: Endoscopic view of left nasal cavity.(a) Polypoid mass. (b) Middle turbinate in contact with the mass.

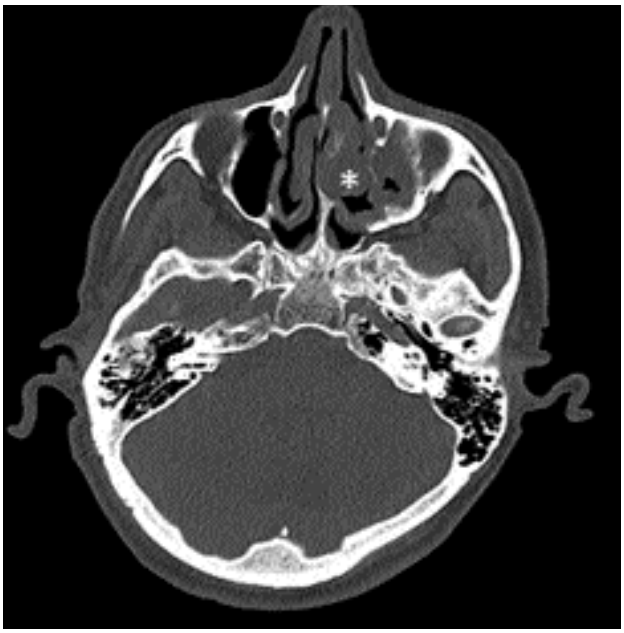

Figure-2: Axial computed tomography scan showing soft-density mass (*) between the lacrimal bone and the middle turbinate.

discharged from the hospital the day after the surgery without any complications. After two months, the bicanalicular silicon stent was taken out and he recovered well without evidence of residual or recurrent disease on follow-up. He is currently free from the disease 24 months after the surgery.

Discussion

Pleomorphic adenoma is the most common neoplasm of the major salivary glands, and is particularly seen in the parotid gland. Occasionally it can be found in areas outside the major salivary glands involving the minor salivary glands located in hard and soft palate, lips, floor of the mouth, tongue, retromolar area, peritonsillar region, lacrimal tract and the nasal cavity.[1,2] The most common site for nasal pleomorphic adenoma is the nasal septum. On the contrary, lateral nasal wall involvement is very exceptional.[4,5] Pleomorphic adenoma originating from lateral nasal wall mainly involves the inferior turbinate.[3] In our case, it originated from the mucosa which was adjacent to the bone forming the medial wall of lacrimal tract and was not invading it. To the best of our

knowledge, this is the first reported case of a pleomorphic adenoma arising from the mucosa of the lateral nasal wall located just beside the medial wall of the lacrimal sac without invading it.

A study reported unilateral nasal obstruction and epistaxis as the most common symptoms.[5] Other presenting complaints included nasal swelling, a mass in the nose, epiphora, and mucopurulent rhinorrhoea. Our patient was a 38-year-old man who presented with epiphora only and this symptom was related to the concurrent chronic dacryocystitis. Thus, the detection of the mass was accidental during routine nasal endoscopy. A smooth-surfaced, pale, polypoid mass was observed on endoscopy. In such cases, other benign and malignant lesions such as nasal polyps, papilloma, haemangioma, angiofibroma, squamous cell, adenocarcinoma, adenoid cystic carcinoma, mucoepidermoid carcinoma, and melanoma must also be included in differential diagnosis.[2]

The CT findings with pleomorphic adenomas of the nasal cavity are non-specific and typically show a well-defined soft-tissue mass. CT allows the clinician to assess bony involvement or destruction.[6] In our case CT revealed an oval soft-density mass, measuring about 8mm in its greatest dimension having contact with middle turbinate in the left nasal cavity. No bony involvement or destruction was seen.

The preferred treatment modality for pleomorphic adenoma is total surgical excision with tumour-negative surgical margins. Concerning the nasal involvement, lateral rhinotomy, midfacial degloving, transpalatal surgery and endoscopic surgery are some surgical approaches depending on the localisation and tumour size.[7,8] There are few cases of intranasal pleomorphic adenomas which were removed by endoscopic approach.[4,8-10] We also had the opportunity to use endoscopic approach owing to the incidental diagnosis at a relatively early stage. The advantages of endoscopic approach are decreased morbidity, reduced blood loss during surgery, decreased hospital stay and avoidance of external scars.[8,9] Endoscopy also enables better visualisation of tumour margins, facilitating complete removal and avoiding excessive resection. Besides, insufficient resection of pleomorphic adenomas results in recurrence. The tumour must be excised with histologically tumour-negative margins.[7] The recurrence rates of intranasal pleomorphic adenomas range between 2.4% and 7.5%.[5] In our case, surgical margins were proved to be tumour-free in histopathological examination. No local recurrence or neck involvement was seen on nasal endoscopy, neck examination or paranasal CT in the 18th post-operative month.

Conclusion

Pleomorphic adenoma of the lateral nasal wall is exceptional. Lateral nasal wall pleomorphic adenomas which have been reported up to now mostly originated from the inferior turbinate. To our knowledge, this is the first reported case of a pleomorphic adenoma arising from the lateral nasal wall located just beside the medial wall of the lacrimal sac. Also, the accidental early detection of the tumour led to the opportunity to choose endoscopic approach which is less invasive.

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