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Pleomorphic adenoma of minor salivary glands

Pleomorphic adenoma, mixed tumour *(adenoma pleomorphum, tumor mixtus)* belongs to benign tumours quite common in laryngological practice. This tumour is of epithelial origin and is formed from lamella of adult secretory ducts and clusters of salivary glands. Mixed tumour is most commonly found in parotid gland and is less common in submaxillary gland. Pleomorphic adenomas often develop from the extension of the deep lobe of parotid gland and then they penetrate peripharyngeal space and are a serious diagnostic and therapeutic problem (9). Pleomorphic adenomas are characterized most often by usually slow growth and are often painless lesions with a capsule. The literature reports also nodules with incomplete or rudimentary capsule or «naked» growths. Quite often satelite nodules are found on the surface of the capsule, especially when the lesion is diagnosed late in the advanced stage of the disease. They may be the cause of local recurrence in case of non-radical surgical treatment. Diagnosis is based on clinical examination and radiological tests (USG, CT, MRI). However, the most conclusive is histopathological examination of the tumour using most often a thin needle biopsy.

Apart from major salivary glands pleomorphic adenomas are also found in minor salivary glands of the upper respiratory tract. According to Rauch they constitute about 7.5% of all cases (15). These tumours may develop in palatal glands and other minor glands of mucous membrane of the mouth and throat, but they are rather rare in nasal cavity, paranasal sinuses, larynx, trachea, lacrimal glands and skin (1-4, 8, 11, 15).

CASE REPORTS

In the years 1998–2002 in the Otolaryngology Ward for Head and Neck Surgery in Stefan Cardinal Wyszyński District Speciality Hospital in Lublin four patients underwent surgery for the histopathologically confirmed pleomorphic adenoma in rare localization.

Case 1. Female Ł. B., age 29 (case history no. 5048/99) was admitted to the Otolaryngology Ward in Stefan Cardinal Wyszyński District Speciality Hospital in Lublin for progressive impairment of nasal patency and thick residual discharge in the nasal cavity. The physical examination revealed a tumour of 1.5 cm arising from a cartilaginous part of nasal septum in the right nasal duct. The surface of the tumour was smooth, without any ulceration. A segment was taken from the lesion for the histolopathological examination which revealed *Adenoma polymorphum* in the sample marked no. 11393/99. The patient was qualified for surgical treatment. The tumour from the nasal septum was resected with perichondrium and a margin of mucous membrane. Mucous membrane loss and

perichondrium loss were replaced by skin of full thickness transplanted from behind ear concha. Post-operative recovery was uneventful. Post-operative histopathological examination no. 15944/99 confirmed *Adenoma polymorphum*. A check-up 2 years after the operation did not reveal any local recurrence.

Case 2. Male M. J., age 45 (case history no. 9391/99) was admitted for treatment for the tumour in the upper lip. The patient noticed a growing tumour in the lip 8 months before. The physical examination revealed a tumour in the upper lip 3x4 cm in size, hard on palpation but painless, smooth in shape. The lesion was localized within philtrum. Mucous membrane of the lip covering the tumour did not show any pathological changes. The patient was qualified for surgical treatment and the tumour in the upper lip was removed. Post-operative recovery was uneventful. Post-operative histopathological examination no. 30286/99 revealed *Tumor mixtus glandulae salivaris*. A check-up 1 year later did not reveal any local recurrence. The patient has not come for next check-ups since February 2000.

Case 3. Female Z. B., age 77 (case history no. 8834/99) was admitted to the ward in December 1999 with a diagnosis *Tumor maxillae sin.* In her medical history the patient reported a progressive prominence on her palate, which was hard and painless, of about 5 years' duration. It has caused problems with eating for about last 6 months. For about a year the patient had problems with enunciation and abnormal slurred speech. Laryngological examination revealed a tumour 4x5 cm in size situated on the left side of the hard palate. It was hard on palpation, painless, extending to the soft palate. The mucous membrane covering the tumour was normal and smooth. Within nasopharynx on the left the tumour caused prominence of soft palate. Cervical lymph nodes were not palpable. CT scanning revealed a tumour in the maxilla extending to hard palate on the left and spreading laterally to pterygopalatine fossa, which resulted in thinning of pterygoid process, superiorly intussepted into nasal cavity on the left side damaging horizontal lamella of palate bone. A segment of tumour was collected from oral approach for histological examination. After obtaining the result of the test no. 28035/99 with a diagnosis *Tumor mixtus* the patient was qualified for surgical treatment. A partial maxillectomy with partial removal of hard palate on the left side was performed.

Case 4. Female M. J., age 64 (case history no. 1362/02) was admitted to the ward with a histopathological diagnosis no. 7816/02 *Adenoma polymorphum palati*. Diagnostic tests were performed on out-patient basis. For many years the patient has noticed a progressive lesion in hard palate on the left side. In 1965 she was operated for the tumour in this area but her medical information is missing. The physical examination revealed the tumour in the hard palate about 5 cm in diameter on the left side, extending to the alveolar process, beyond the median line of the palate, with ulceration in the central part about 0.5 cm in diameter. The tumour was hard and painless on palpation. CT scanning of nasal sinuses revealed abnormal tumorous mass in the posterior part of the hard palate filling also the posterior part of nasal cavity and ethmoid cells on the left. The tumour resulted in modelling adjacent bones causing their thinning and slight bone loss, visible especially on hard palate. The patient was qualified for surgical treatment. A partial maxillectomy with the removal of hard palate and etmoidectomy on the left part were performed. In the course of healing process a high degree residue of drying secretion was observed in post-operative space. Apart from that the patient had problems with eating after a gastric tube had been removed and open rhinolalia aperta. When the post-operative niche healed, the patient was discharged from the ward and referred to Maxillofacial Surgery Hospital, Medical University of Lublin for further prosthetic replacement of the extensive bone loss in the palate. The result of post-operative histopathological examination no. 19/600-602/02 was *Tumor mixtus*.

DISCUSSION

The above case histories were presented to show that mixed tumours may develop beyond major salivary glands and cause extensive lesions requiring complicated operative procedures. The treatment of choice in pleomorphic adenoma is the removal of the whole tumour. It is often associated with the necessity to remove extensive anatomical structures.

The localization of pleomorphic adenoma in minor salivary glands is rare. In the literature it constitutes about 5–14% of all "mixed tumours" (5, 7, 10). The most common localization of pleomorphic adenoma in minor salivary glands is palate (from 37% to 89% of all tumours) (2, 3, 12, 13). The second in occurrence of these tumours is the upper lip and cheeks (2). The recurrence in case of pleomorphic adenoma in minor salivary glands is rare. However, mixed tumours sometimes become malignant in some cases. The frequency of malignancy of pleomorphic adenoma in minor salivary glands is estimated at 6–18% (2, 6). This percentage is higher than the frequency of malignancy of pleomorphic adenoma in major salivary glands, both in parotid gland (3.1%–13.3%), and in submaxillary gland (2–11.7%) (6, 20).

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SUMMARY

Pleomorphic adenoma are benign tumours in salivary glands. They occur both in major and minor salivary glands. The localization in minor salivary glands is estimated to be 5–14%. The study presents 4 cases of pleomorphic adenoma with atypical localization with the method of diagnostic and therapeutic procedure.

Gruczolak wielopostaciowy małych gruczołów ślinowych

Gruczolaki wielopostaciowe należą do nowotworów łagodnych gruczołów ślinowych. Rozwijają się zarówno w dużych, jak i małych gruczołach ślinowych. Lokalizacja w małych gruczołach oceniana jest w piśmiennictwie na 5–14%. Zaprezentowano cztery przypadki gruczolaka wielopostaciowego o nietypowej lokalizacji. Przedstawiono sposób postępowania diagnostycznego i terapeutycznego.