

# Pleomorphic adenoma of the nose

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## INTRODUCTION

Pleomorphic adenoma (mixed salivary tumour) is usually a slowly growing benign non invasive tumour derived from salivary glands. It is most frequently seen in the major salivary glands, but can also be seen in the oral mucosa, the hard and the soft palate as well as in the nose cavity.

## CASE STORY

A 56 year old woman perceived in 1976 a reduced passage through the nose and one year later total obstruction on the left side. The patient had no pains and no episodes with epistaxis, but secretion from the left side of the nose.

Examination revealed a very hard obstructing tumour in the left side of the nose. For technical reasons it was impossible to make tomography preoperatively. In

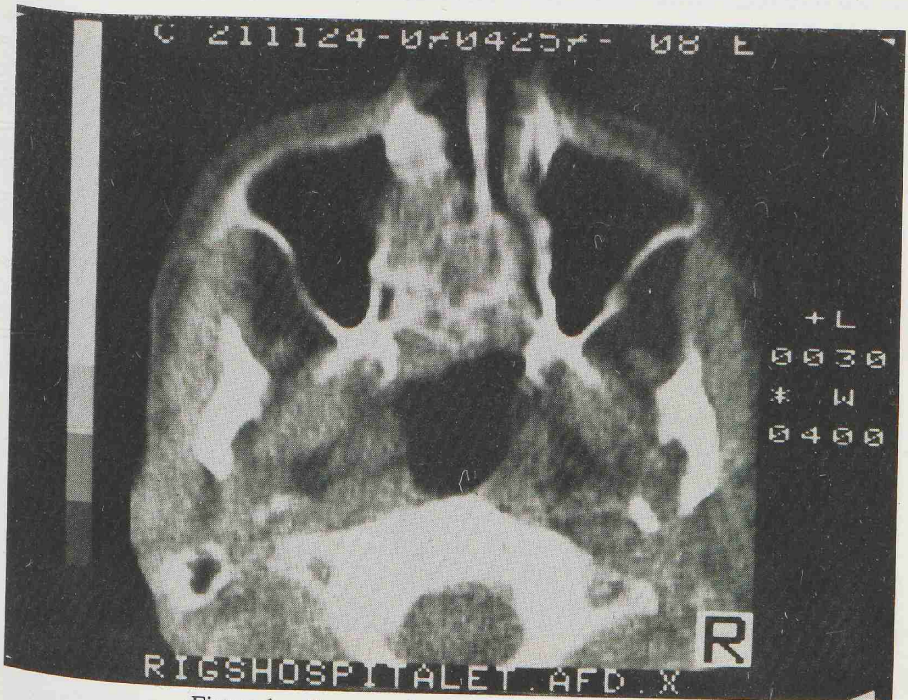


Figure 1. Computerized tomography of the nose.



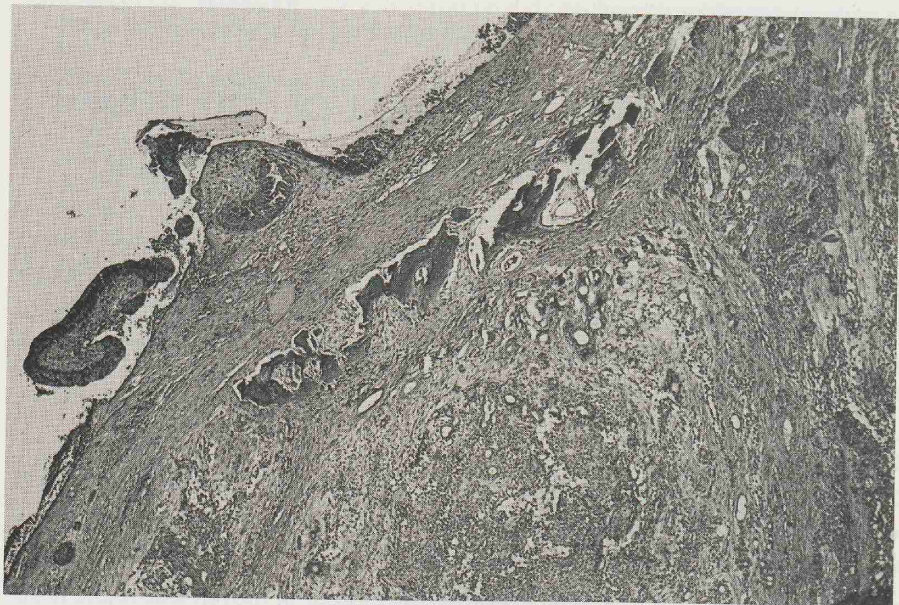


Figure 2a and 2b. Multicentric pleomorphic adenoma containing areas of myxoid elements and an infiltrative way of growth.



general anaesthesia the tumour was excised through a transnasal approach. The tumour arose from the floor and the lateral part of the nose.

Histological examination showed pleomorphic adenoma partly covered by respiratory epithelium. Tomography of the nose and maxillary sinuses four months later showed normal osseous wall to the adjacent maxillary sinus without sign of reformation or destruction.

In February 1981 the obstruction of the left side of the nose returned. Tomography now showed destruction of the nasal septum, invasion of the hard palate and partly destruction of the lateral wall with invasion into the maxillary sinus. We saw the patient for the first time in June 1981 and performed a computerized tomography (Figure 1). This showed a process in the left side of the nose extending backwards to the soft palate and invading the left maxillary sinus. In the center of the tumour several spots of calcification were found. The tumour was removed using a modified Denker's approach and the extension corresponded to the CT-scan. The orbit was not affected. Histological examination showed a multicentric pleomorphic adenoma containing areas of myxoid elements and an infiltrative way of growth, Figures 2a and 2b.

#### DISCUSSION

The most common localization of tumours in the minor salivary glands is the palate, where more than 50% are pleomorphic adenomas (Eneroth, 1970). Mostly they appear between the third and sixth decade, and there is no sex difference (Frale et al., 1970; Compagno, 1977; Blanchet, 1979).

Pleomorphic adenomas are slowly growing tumours histologically characterized by a myxoid stroma with areas of well differentiated glandular structures (Yu, 1974). The tumour is usually incapsulated and may infrequently ulcerate, when the localization is in the palate often in connection with denture trauma.

In one case the primary tumour was localized to the left side of the nose and reoccurred five years later with extension to both hard and soft palate. Pleomorphic adenomas in the nasal cavity are rare and from a material of 492 tumours of the minor salivary glands only 9,6% were found (Krolls et al., 1972).

In another material of 40 patients with intranasal pleomorphic adenomas only eight originated from the lateral wall and only three had extensions into the maxillary sinuses (Compagno et al., 1977). Relapse frequency was 10%, which was low compared to pleomorphic adenomas elsewhere (Krolls et al., 1972; Hjertman et al., 1970).

Histologically pleomorphic adenomas in the nose appear to show great cellularity in such a way that epithelial elements dominate in relation to stromal structures. This phenomenon contrasts pleomorphic adenomas in the major salivary glands. In this particular case we found myxoid structures, and this might have contributed to the relapse five years later.

Radiologically there is a difference between malignant and benign erosions of the hard palate. Cortical margin preserved and absence of periosteal reaction adjacent to the radiolucent defect favours a benign tumour (Pinto et al., 1975). However, this is not in accordance with our radiological findings, as our tomography shows osseous infiltration by the tumour and proliferative changes in the circumference. Furthermore our CT-scan suspect malignancy partly on account of invasion of the maxillary sinus and partly because of calcification of the tumour center. In order to distinguish between benign and malignant tumours in this area radiological examinations are not sufficient and might even be misleading. The treatment of pleomorphic adenomas is surgical and should not be enucleation but excision in healthy tissue as pleomorphic adenomas often have minor satellites or as in our case demonstrates an invasive disposition of growth. Postoperative control of pleomorphic adenomas in the nose should properly concentrate on tumours containing quantity of stromal elements, as they apparently show a tendency to relapse.

#### REFERENCES

1. Blanchet, F., Valdazo, A., 1979: Tumeur mixte (adénome pléomorphe) des fosses nasales: à propos d'un cas. *Revue de Laryngologie*. 100: 595-598.
2. Compagno, J. and Wong, R. T., 1977: Intranasal mixed tumours (pleomorphic adenomas). *AMJ. Clin. Path.* 68: 213-218.
3. Eneroth, C-M., 1970: Incidence and prognosis of salivary gland tumours at different sites. *Acta otolaryng.* 263: 174-178.
4. Frable, W. J., Flzay, R. P., 1970: Tumours of minor salivary glands. *Cancer*. 25: 932-941.
5. Hjertman, L. and Eneroth, C-M., 1970: Tumours of the palate. *Acta otolaryngol.* 263: 179-182.
6. Krolls, S. O. and Boyers, R. C., 1972: Mixed tumours of salivary glands. Longterm follow-up. *Cancer*. 30: 276-281.
7. Pinto, R. C., Kelly, D. E. and George, A. E. 1975: Radiologic features of benign pleomorphic adenoma of the hard palate. *Oral Surg.* 39: 976-981.
8. Spiro, R. H., Koss, L. G., Hajdu, S. I. and Strong, F. W., 1973: Tumours of minor salivary origin. *Cancer*. 31: 117-128.
9. Yu, S. W. K., 1974: Mixed tumour of the nasal septum. *Canadian J. Otolaryng.* 3: 630-633.

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