Clinical records

Malignant oncocytoma

By N. Laurian, Y. Zohar, and L. Kende (Petah-Tiqva, Israel)

Oxyphil adenoma (oncocytoma) is a rare tumour of the salivary glands having a predilection for older subjects, and constitutes less than 1% of parotid gland neoplasms (Eneroth, 1966; Thoma, 1970). There are very few recorded cases of malignant oxyphil adenoma.

Case Report

A 32-year-old male was admitted to our department for treatment of a painful mass localized in the left parotid region. The mass had been observed by the patient 30 days previously. He was unaware of the tumour before that time.

Otolaryngoscopic, oral and general physical examination did not disclose any other pathological findings. Chest X-ray was within normal limits. There were no haematologic or biochemical abnormalities.

The tumour was lobulated, irregular, immobile, painful, measured 1×2 cm, and localized in the tail of the left parotid gland. There was free flow of saliva from both parotid ducts. There were no signs of facial nerve paralysis.

The patient was operated upon. Surgical exposure of the parotid gland revealed a homogenous, well-encapsulated mass involving the superficial lobe. The frozen section did not reveal any malignant cells. A partial parotidectomy (lateral lobectomy) was performed and the facial nerve was preserved after an easy dissection.

Recovery was uneventful. Pathological examination revealed a brown encapsulated tumour. The microscopic report revealed an oxyphil adenoma (oncocytoma) with no evidence of malignancy (Fig. 1).

The patient was discharged, to be followed up in our outpatient clinic.

He was again admitted ten months later because of the gradual appearance of a painful swelling in the operated parotid area. The swelling presented as a diffuse tumour, adherent to the skin of the retromandibular region, with multiple hard cervical and supraclavicular lymphnodes. Under the scalp on the vertex of the skull there was a painful, small, bulging nodular mass.

Chest X-ray examination was normal. A needle biopsy from the parotid region revealed malignant cells. The patient underwent a total parotidectomy with resection of the facial nerve and radical neck dissection, as well as excision of the scalp lesion.

The histological report revealed a malignant oncocytoma (Fig. 2) with metastases in the lymph nodes of the neck (Fig. 3).

The patient received supplementary combined cobalt irradiation (5,000 r) and chemotherapy. Nine months after the operation the patient died from cachexia due to progressive carcinomatosis.

Permission for a post mortem examination was refused.

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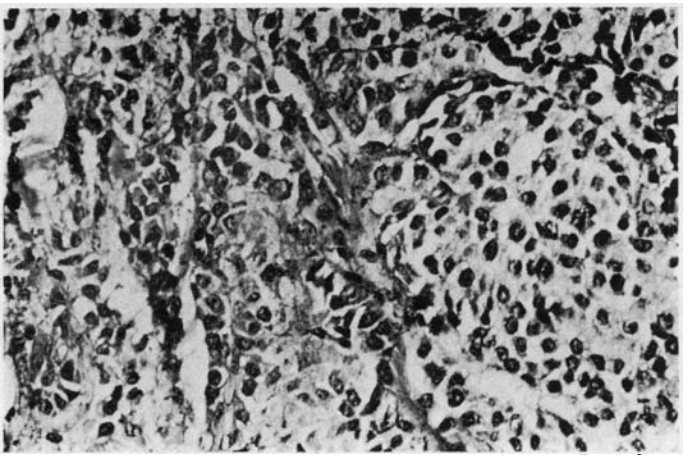


FIG. 1.

The cells are of oncocyte type: large cells, bright cytoplasm with small round marginal nucleus. Magnification 8 × 45. Haematoxylin-eosin stain.

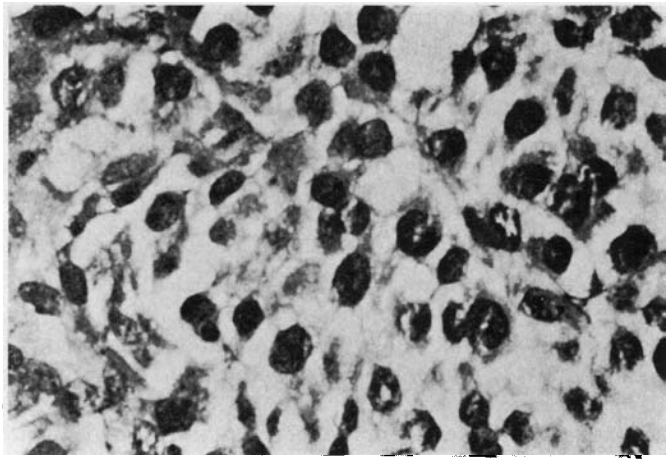


FIG. 2.

Malignant oncocytoma. Atypical, multinucleated cells, enlarged hypochromatic nuclei. (In haematoxylin-eosin stain oncocytes still could be recognized.) Magnification 8 × 120.

Discussion

Oncocytoma is a tumour made up of acidophilic cells known as oncocytes; it is also called oxyphil adenoma and is considered a benign tumour (Foote and Frazel, 1954). The cells are large and have bright pink cytoplasm filled with eosinophilic granules and small rounded nuclei. The dark nuclei may be vesicular with one or more small nucleoli and a few mitoses.

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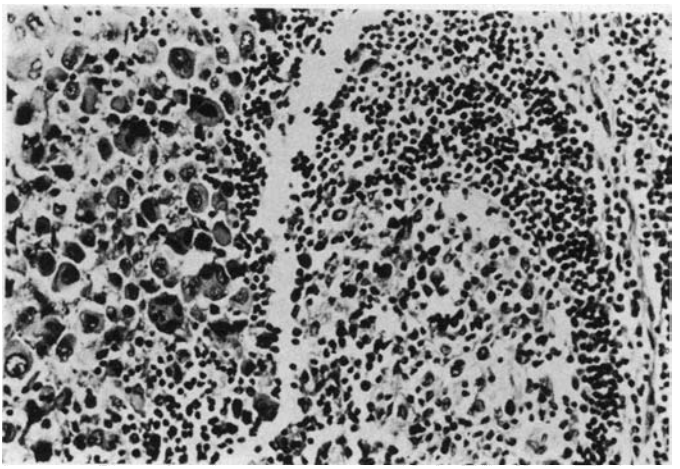


FIG. 3.

Metastases of malignant oncocytoma in cervical lymph node. Destruction of the lymphatic tissue by the malignant cells. Magnification 8×45.

Hamperl (1931) drew attention to the eosinophilic cells which he called oncocytes. They were observed in salivary glands, the trachea, pharynx, oesophagus, buccal mucosa, pancreas, liver, stomach, hypophysis, thyroid, parathyroid, breast, testicle and fallopian tubes.

Other authors (Meza-Chavez, 1949) found these cells in normal parotid glands, in either the ducts or the acini. According to electron microscopic studies done by Hubner, Panlussen and Kleinsasser (1967) the oncocytes in the salivary glands are related to the myoepithelial cells. Balogh and Roth (1965) have shown by electron microscopy that the oncocytes are rich in mitochondria and enzymes.

On account of confusion in terminology provoked by some authors who described the tumour as oncocytoma, adenolymphoma or mixed tumour in which only parts of the tumour were formed by oncocytes, Meza-Chavez (1949) advocated the introduction of the term 'oxyphill granular cell adenoma' to describe those tumours entirely composed of oncocytes.

Oncocytoma of the salivary glands is a rare tumour (Hubner, Panlussen and Kleinsasser, 1967) occurring especially in older subjects and it presents less than 1% of all parotid tumours (Eneroth, 1966; Thoma, 1970). In the literature available to us we found nine reports of malignant oncocytoma of the salivary glands (Bauer and Bauer, 1953; Hamperl, 1962; Marucci, Fontana and Marcato, 1962; Bazaz-Malik, 1968; Fayemi and Toker, 1974; Leventon, Katz and Bell, 1976; Gray, Cornog and Seo, 1976) and only one reported case of a benign oncocytoma which later underwent malignant degeneration (Bazaz-Malik and Gupla, 1968). Among the above-mentioned reports, seven cases of malignant oncocytoma were in the parotid and two cases in the nasal mucosa.

To our knowledge this is the eighth recorded case of malignant oncocytoma to occur in the parotid gland and the second report of malignant change in a benign oncocytoma.

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Summary

A case of malignant oncocytoma of the parotid gland in a 32-year-old male is presented. Ten months after parotidectomy an undifferentiated carcimona, in which oncocytes still could be recognized, developed in the operated area.

According to the literature available to us, this is the second reported case in which malignant transformation in a benign oncocytoma of the salivary gland has been observed.

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