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Chondrosarcoma of the maxillary sinuses

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Chondrosarcoma is a malignant tumour rarely found in the sinuses. Compared with other bony tumours of the nose and the jaws, it is very rare.

The distinction between chondrosarcomas and osteosarcomas was first drawn by Phemister in 1930. Chondrosarcomas have their own characteristic histology and differ from osteogenic sarcomas. They never show neoplastic osteoid tissue and bone, evolving directly from a sarcomatous stroma (Ewing, 1939).

Microscopically, chondrosarcomas are often well differentiated, resembling benign chondromas. They consists of a cartilaginous matrix, usually of the hyaline type, and of chondrocytes encased within lacunae. Cytological aberrations of the chondrocytes, such as increased cellularity, nuclear irregularity and hyperchromatism and the presence of binucleated or multinucleated cells help to establish the malignant nature of the lesion. In less well differentiated chondrosarcomas, compactly arranged fusiform or round cells usually surround cartilaginous islands. In poorly differentiated chondrosarcomas the cartilaginous tissue is extremely cellular, alternating with tissue of chondromatous appearance (Ashley, 1978).

Chondrosarcomas are less aggressive neoplasms than osteogenic sarcomas and their biological behaviour depends largely on their degree of differentiation. Even well differentiated, they are locally destructive and recur repeatedly before metastasing.

Lymph node metastasis is unusual. Metastasis takes place via the blood stream and may spread to distal organs, chiefly to the lungs and bones (Potdar et al., 1970). Because of the limited number of cases in the literature in reference to chondrosarcomas of the facial bones, many contradictory statements are reported concerning the histogenesis, the clinical and biological behaviour as well as the prognosis (Buchner et al., 1979; Batsakis, 1974; Lucas, 1976).

It should be noted that excised chondromas of the nasal cavities and the sinuses, when longstanding and recurring, may develop into chondrosarcomas, as it can be seen from the small number of cases mentioned in the literature.

REPORT OF A CASE

Mrs. T. Z., aged 42, examined in Sept. 1980, complained of severe nasal obstruction, progressively deteriorating over the last year.

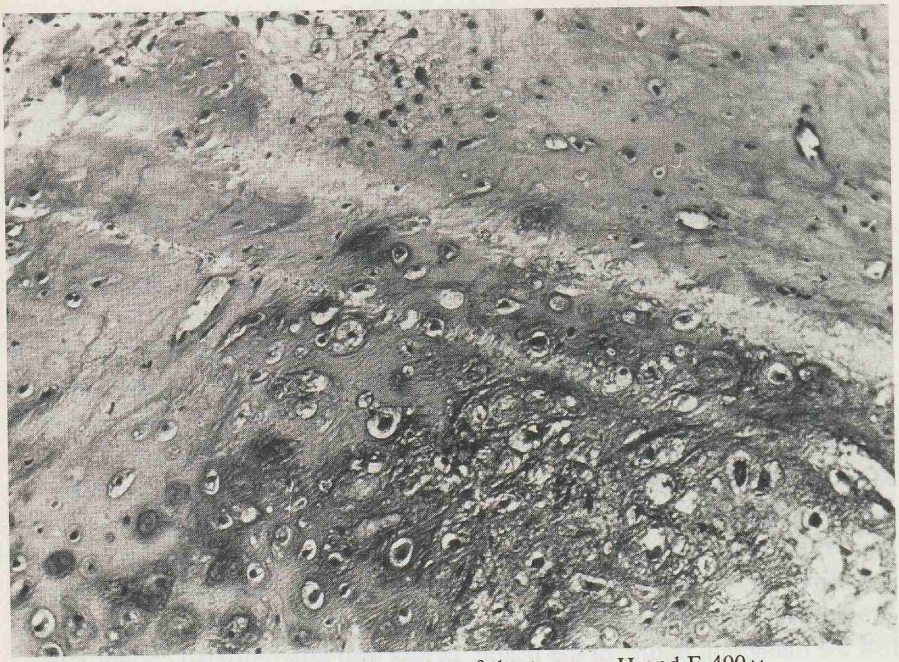

Figure 1. Differentiated area of the tumour. H and E 400×

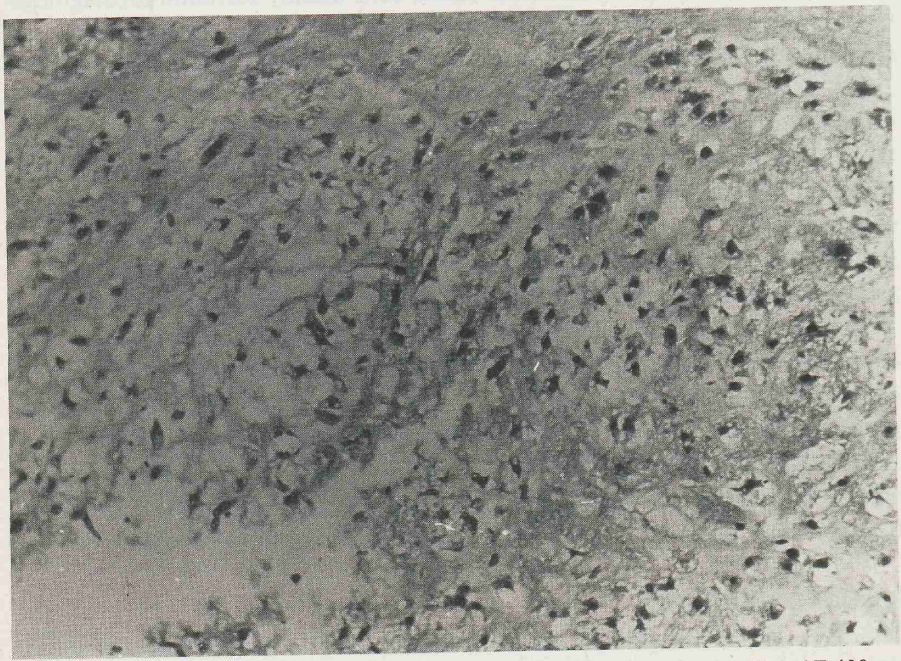

Figure 2. Cellular area with cytological signs of sarcomatous appearance. H and E 400×.

The E.N.T. examination revealed a symmetrical tumour-like formation in both nostrils and opacity of both maxillary sinuses (Figure 1). Nothing abnormal was revealed by the detailed examination of the various systems. Chest X-ray was negative.

A Caldwell-Luc operation was performed bilaterally, the tumour was excised and normal breathing through the nose was restored.

The histological examination of the tissue from the nasal cavities and from both the maxillary sinuses revealed a chondromatous appearance with areas of differentiated chondrosarcoma (Figure 2).

Since then the patient has been subjected to regular nasal and post-nasal examination and no local recurrence has been found so far. Breathing condition is satisfactory.

CONCLUSIONS

1. Chondrosarcomas of the jaws are rare tumours.
2. They are of a secondary nature and constitute a malignant degeneration of previous chondroma.
3. The treatment is surgical only.
4. Prognosis is always bad, and metastasis is almost inevitable.

The case is thought worth recording because very few cases have been published in recent years.

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