

Case Report

A Case of Nodular Hyperplasia of the Juxtaoral Organ in Man

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Summary. We report the first case of a tumorlike hyperplasia of the juxtaoral organ in man.

Key words: Juxtaoral organ in man — Nodular hyperplasia.

Epithelial cell nests in the fossa buccotemporalis in man have been misinterpreted in diagnostic frozen sections for surgical oral pathology as perineural invasion by squamous-cell carcinoma. Krammer and Zenker (1974) in their reply to the paper of Lutman (1974) emphasized that these structures are identical

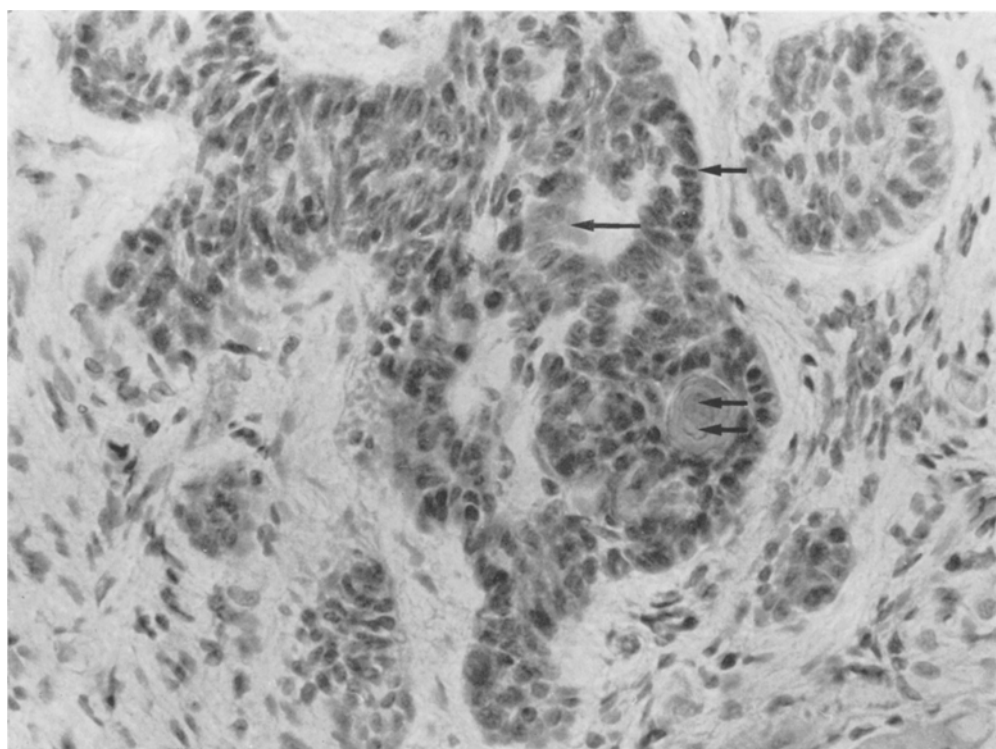


Fig. 1. Typical human juxtaoral organ. Frozen section, HE, $\times 320$

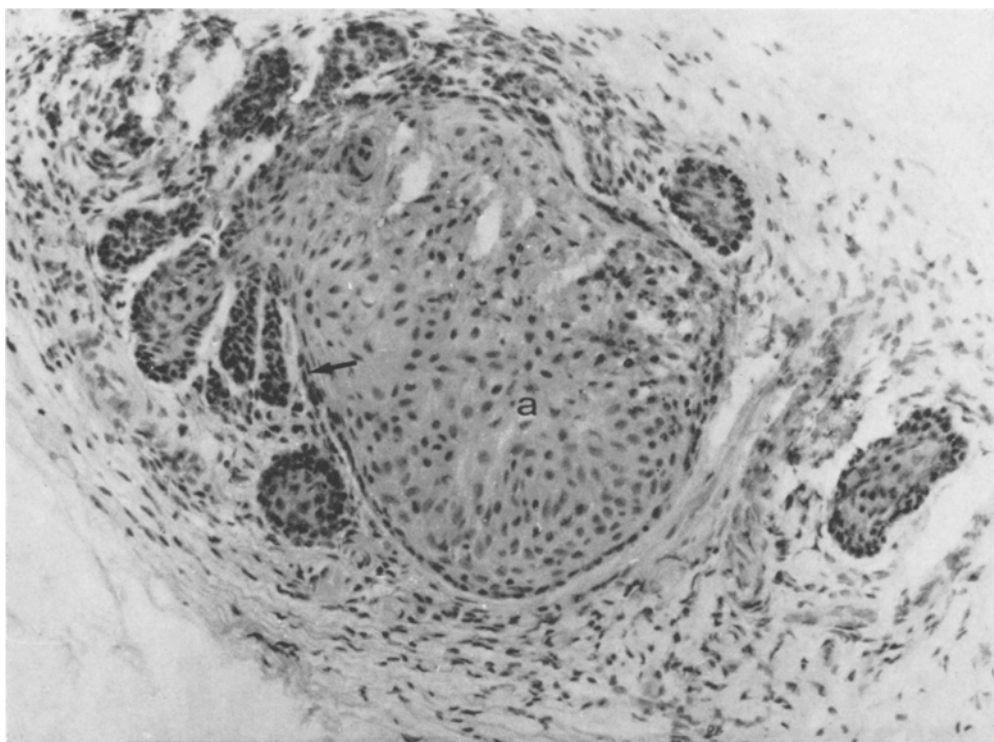


Fig. 2. Nodular hyperplasia of a juxtaoral organ. Frozen section, HE, $\times 160$

to the well-known and extensively described juxtaoral organ, which has been established by Zenker in 1953 as a permanent normal anatomical entity in man. It is identical to the organ of Chievitz (1885) which was originally thought to be a transient structure in fetal life.

In the course of a histochemical investigation of this organ we examined serial frozen sections from the buccotemporal region of man in 100 autopsy cases.

In this paper we report the first case of a tumorlike lesion of the juxtaoral organ.

The lesion depicted in Figure 2 was removed from the left fossa buccotemporalis of a 68 years old woman who died with acute myocardial infarction. No tumor, no systemic disease and no lesion of the skin and mucosa appeared in her history. There were no symptoms of a pathological process in the oral cavity.

The typical juxtaoral organ (Fig. 1) measures approximately 10 to 0.5–2 mm. It is composed of arborized trabeculae of cells. At their periphery spindle-like cells with dark nuclei are radially orientated (Fig. 1, short arrow). In the contrast the core of the trabeculae is built up by axially arranged cells with pale vesicular nuclei and sometimes small nucleoli. Small nests of very pale clear cells whose large nuclei lack nucleoli ("helle Zentren", Salzer, Zenker, 1962) are dispersed randomly in the core, (Fig. 1, long arrow). Follicle-like structures are occasionally encountered in the center of trabeculae (Fig. 1, double arrow).

In the contrast to the typical juxtaoral organ found on the right side of our case, a nodule of nearly 4 mm in diameter lay in the dorsal pole of the left organ. Histologically the outer cellular layer of the adjacent unaltered part is continuous with the peripheral, capsule-like flat cell layer of the nodule (Fig. 2, arrow). Randomly dispersed cells with lightly oxyphilic cytoplasm and nuclei of varying chromatin content without nucleoli constitute the core of the lesion (Fig. 2, a).

The surrounding connective tissue (Stratum fibrosum internum, Salzer, Zenker, 1962) apparently seems to be compressed at the expanding side. Vascularisation is absent. The appearance of the lesion resembles a condition that has been called nodular (adenomatous) hyperplasia in other organs.

Because of the nodular appearance and the predominance of irregularly arranged cells we propose the same term for the pathologic entity of the juxtaoral organ described here. Cytological features suggest that this lesion arises from the pale cell nests.

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