

Giant cervical cyst: Presenting symptom of an occult thyroid carcinoma

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Abstract

A case of giant lateral cervical cystic metastasis from occult thyroid carcinoma mimicking branchial cleft cyst is reported.

Lateral cervical cystic metastases arising from occult thyroid carcinoma and their ultrasonic differentiation from true cysts are discussed.

Introduction

Cystic lesions of the neck are usually considered as benign formations. We were not able to find mention of cystic lymph node metastases of the neck in the current otolaryngology and head and neck surgical textbooks.

Although cystic nodal metastases have been known to pathologists for many years, only a few articles in the literature deal with this entity (Micheau *et al.*, 1974; Cinberg *et al.*, 1982; Tovi and Zirkin, 1983). From this vantage point, we find of interest to describe a very unusual, long-standing, giant cyst of the neck, presenting as the sole manifestation of an occult thyroid carcinoma.

Case report

A 43-year-old woman was referred by the family physician because of large, disfiguring left cervical cystic mass. Ten years previously she had been seen in our outpatient clinic for a similar abnormality and had refused further investigation and surgery.

On present admission, apart from this cervical mass no other pathological finding was detected. Chest X-rays and the I^{131} thyroid scan were normal. Ultrasonographically the mass exhibited a cystic structure with irregular solid components at the posterior cystic wall (Fig. 1) Cytology from fine needle aspiration was not contributory since most of the material was necrotic. The atypical ultrasonic cystic pattern of this mass and the necrotic tissue in fine needle aspiration raised a high index of suspicion of a malignancy and consent for radical surgery was obtained.

At operation, a polycystic lesion of $12 \times 8 \times 7$ cm with firm adhesions to the carotid sheath was excised. The cut section of the mass showed a septate cystic structure with multiple areas of solid projections in the cystic wall (Fig. 2). Frozen section examination revealed a cavitated lymphoid structure lined with papillary elements suggesting a metastatic papillary adenocarcinoma of the thyroid (Fig. 3). The thyroid gland was exposed and a nodule 8 mm in diameter was found in the inferior aspect of the left lobe. Histologically, the nodule proved to be a papillary adenocarcinoma. Total thyroidectomy and left functional neck dissection was performed. The post-operative course was

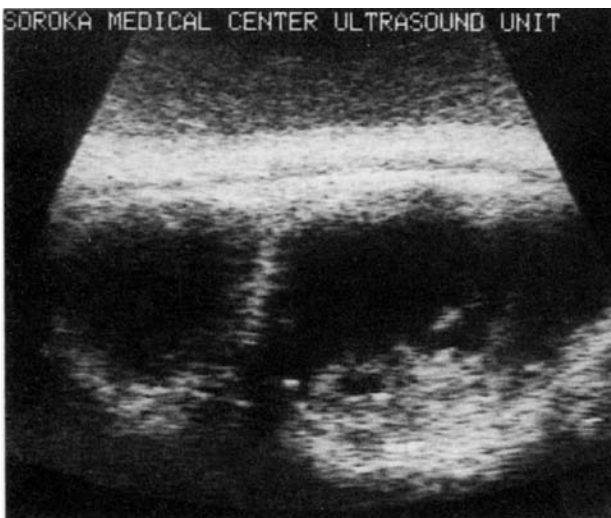


FIG. 1

Longitudinal ultrasound scan of cystic cervical mass. A large bilobular cystic mass with remnants of solid tissue in its posterior wall is demonstrated.

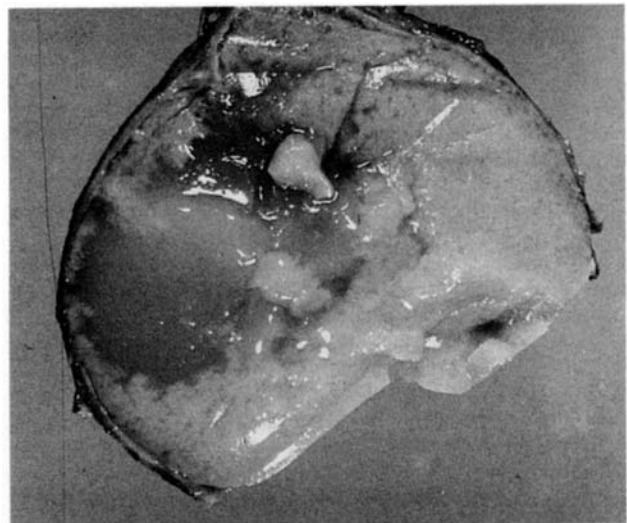


FIG. 2

The cut section of the cervical mass shows a cavitated structure with some solid components in its wall.

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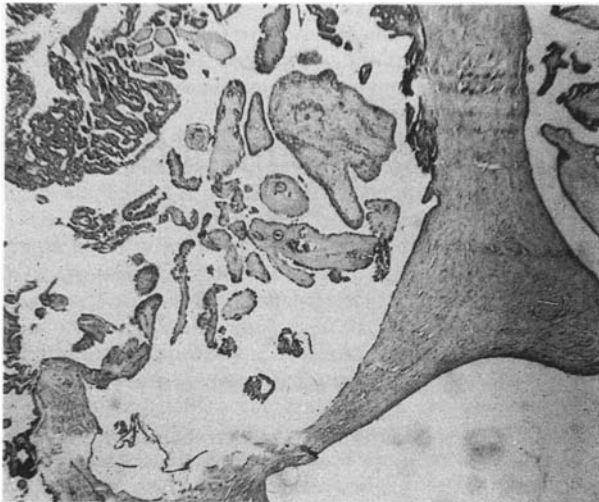


Fig. 3

Cystic wall lined with structures characteristic of papillary adenocarcinoma (H&E \times 100).

uneventful. Replacement thyroid hormone therapy was initiated. Three years after surgery the patient is free of disease.

Discussion

Lymph node metastases from head and neck carcinomas sometimes present as the sole manifestation of the disease (Shaw, 1970; McGuirt and McCabe, 1978). Usually the metastatic lymph node appears as a solid mass in the lateral aspect of the neck. At times the rapid growth of the tumoural process within the lymph node may result in liquefaction necrosis of the latter and transforms it into a fluid-filled mass mimicking a branchial cyst (Micheau *et al.*, 1974; Cinberg *et al.*, 1982; Tovi *et al.*, 1983; Levy *et al.*, 1991). This clinical diagnosis is more persuading when the primary tumour is unrecognized (occult or hidden). Moreover, lympho-proliferative disorders or specific infections may also cause necrosis of the affected lymph node and may be confused with branchial anomalies (Bruneton *et al.*, 1984). Since branchial cleft cysts and the main cervical lymph nodes share the same location along the sterno-cleido-mastoid muscle, diagnostic difficulties may occur. While the excision of the branchial cleft anomalies is well advised, premature removal of a metastatic lymph node may worsen the prognosis (Martin, 1961; McGuirt and McCabe, 1978). Fine needle aspiration biopsy, although contributing to the diagnosis of the solid nodules, has not always been rewarding in cystic lesions (Cinberg *et al.*, 1982).

In our case, the malignancy of the cystic lesion was suggested by its ultrasonic pattern. The presence of intraluminal and mural hyperechoic elements did not favour the diagnosis of a true cyst (Tovi *et al.*, 1987). True cysts, basically present with a homogenous echo-free ultrasonic configuration of smooth walls and a marked through transmission (back wall enhancement) (Birnholz, 1973). Therefore a high index of suspicion of malignancy was sustained and consent for a radical surgery was obtained. Attention was drawn to the thyroid gland as the primary site of the malignancy upon frozen section examination of the cyst wall, in which the histological features were compatible with papillary thyroid adenocarcinoma. The detection of an occult focus of this tumour in the ipsilateral lobe of the thyroid gland enabled us to accomplish the definitive treatment by total thyroidectomy and neck dissection.

Papillary thyroid carcinoma is by far the most common malignant tumour of this gland. It comprises at least 80 per cent of thyroid malignancies in patients less than 40 years old and approximately 60 per cent of overall thyroid neoplasms (Woolner *et al.*, 1961). While it occurs most commonly in women, it is

more virulent in older men (Crile, 1964). It is usually considered as a low grade malignancy with a favourable prognosis. This behaviour is not constant and sometimes the tumour may become locally aggressive or develop distant metastases (Tovi and Goldstein, 1985). It commonly metastasizes to the cervical lymph nodes (Woolner, 1968). In 10 to 30 per cent of the cases, these nodal secondaries appear as the sole manifestation of the disease (Wade, 1980). Since this tumour has a tendency to undergo cystic degeneration either in the primary or in the metastatic sites (Searles *et al.*, 1952), the possibility of metastatic papillary carcinoma should be considered in every solitary lateral cervical cyst. In the present case, the giant size of the metastatic counterpart of the tumour, in point of view of growth pattern behaved differently from the occult primary. This points to the unstable behaviour of papillary thyroid carcinoma as described previously (Tovi and Goldstein, 1985). In conclusion, in the case of cervical cystic lesions with an atypical ultrasonic pattern, the possibility of malignancy should be considered and a consent for radical surgery, if indicated by frozen section examination, should be obtained.

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