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Case Report

A Rare Case of Nodular Goiter Presenting as Follicular Variant of Papillary Thyroid Carcinoma

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Abstract

Papillary carcinoma thyroid has an aggressive form which is follicular variant [2]. More commonly it presents with regional lymphadenopathy and extrathyroidal extension [1]. A 24 year old patient presented with chief complaints of swelling in front of the neck for the past 5 years, patient noticed the swelling in front of the neck, insidious in onset, gradually progressed to attain the current size. Not associated with any pain. FNAC showed papillary variant hence hemithyroidectomy was done which later proved to be FVPTC in HPE.

Introduction

Papillary thyroid carcinoma (PTC) is the most common thyroid malignancy and is usually associated with an excellent prognosis, particularly in young female patients.

Of all the thyroid carcinomas diagnosed 70%-80% are PTC.

PTC usually occurs in a ratio of 2.5: 1 female to male ratio [1].

The peak incidence occurs between the age of 30-50 years [1].

Follicular variant of papillary thyroid carcinoma occurs in approximately 10 % of PTC [2].

Case Report

24 year old female patient presented with complaints of swelling over the neck for the past 5 years, patient noticed the swelling in front of the neck, insidious in onset, gradually progressed to attain the current size. not associated with any pain. She was on euthyroid state.

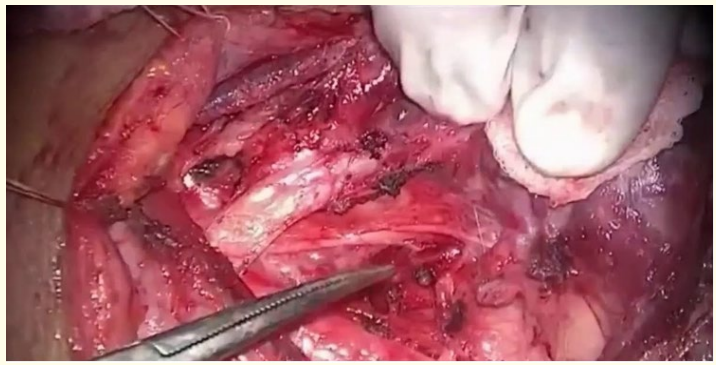
On examination patient's general condition was fair and vitals were stable. A single swelling of 2x1 cm present in front of the neck, on right side extending 5cm below the thyroid cartilage; 2cm above the sternal notch; 2 cm lateral to mid line and 2cm lateral to anterior aspect of sternocleidomastoid. The swelling moves with deglutition. The swelling was sift-firm in consistency and well defined borders were palpated deep to deep cervical fascia. Carotid pulsation felt equally at the same level on both sides. no other swelling palpable.

The thyroid profile showed TSH, FT3, FT4. ultrasound of neck revealed "well defined solitary nodule measuring approximately 1.7x1.6x1.2 cm with multiple solid and cystic components, internal and peripheral vascularity noted in right lobe of thyroid - suggestive of solitary nodule of right lobe of thyroid. A cystic nodule measuring 0.3x0.3 cm noted in the left lobe of thyroid-suggestive of colloidal cyst"

FNAC picture clusters of benign follicular cells align with few cyst macrophages, lymphocytes and thin and thick colloid and scattered bare nuclei in background suggestive of NODULAR COLLIDAL GOITER-BETHESDA CATEGORY II. Other lab parameters were normal. Patient was assed and taken up for right hemithyroidectomy under general anaesthesia.

Intra operatively a well demarcated cyst in lower pole measuring 2x2 cm- soft to firm in consistency with a grey white nodule-0.5cm in diameter, nodule was firm in consistency.

HPE revealed papillary carcinoma, follicular variant, well demarcated, non-invasive. Margins free of tumour. Adjacent thyroid shows extensive lymphocytic thyroiditis.



Right near total thyroidectomy was done.

Discussion

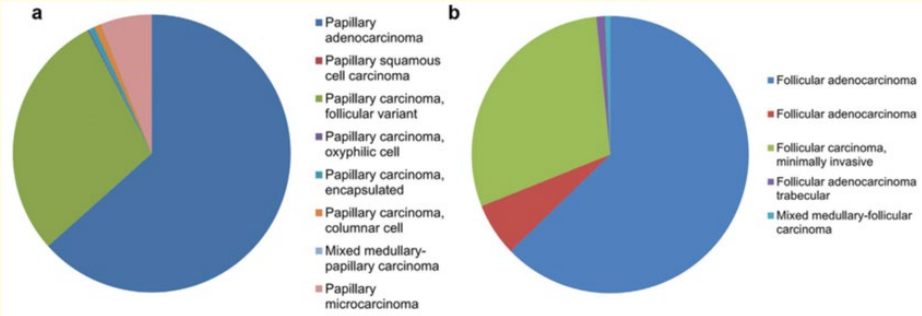
Follicular variant of papillary thyroid carcinoma is one of subtype of PTC and is considered as a lazy cancer [4].

Lindsay in 1960 histologically described FVPTC [1], in 1977Chen and Rosai, and in 1983 Rosai et al . It is a tumor which possess both nuclear features typical of PTC in character (eg, nuclear clearing, grooves, and pseudo-inclusions) and growth pattern follicular in nature [4].

Diagnostically FVPTC presents several challenges. FVPTCs are usually encapsulated, cytologically it's difficult to differentiate from follicular adenoma (FTA). Many studies highlight this by demonstrating variability involved with the observer in diagnosis of FVPTC [3].

Follicular variant PTC has similar prognosis to PTC, multinodular follicular variant is an exception to it with worse prognosis [1]. Usually completely encapsulated tumors don't invade. They are a very low risk of negative outcome - those tumors are classified as "noninvasive follicular thyroid neoplasm with papillary-like nuclear features" [4] (NIFTP).

As of 2015 guidelines of ATA stated near-total or total thyroidectomy for tumor > 4 cm, low risk papillary and follicular carcinomas > 1 cm and < 4 cm without extrathyroidal extension, and without evidence of any lymph node metastases, hemithyroidectomy alone was enough, and we should choose hemithyroidectomy as the initial surgical procedure.



The compositions of histologic subtypes for papillary thyroid cancer (a) and follicular thyroid cancer (b).

Conclusion

ATA guidelines were followed and near total thyroidectomy was done to the patient [4]. Post operatively the patient was symptomatically better. Since near total thyroidectomy was done patient postoperatively was able to attain an euthyroid state without any need of drugs.

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