International Journal Dental and Medical Sciences Research
Volume 5, Issue 1, Jan-Feb 2023 pp 404-405 www.ijdmsrjournal.com ISSN: 2582-6018

A Case Report of Micropapillary Thyroid Carcinoma-Diagnostic Challenge and Management Protocol

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Submitted: 01-02-2023 Accepted: 10-02-2023

I. INTRODUCTION-

Papillary thyroid microcarcinoma (PTMC) is a thyroid cancer with small tumorsthat are 1.0 cm maximum in diameter. The majority of PTMCS are not commonly found on clinicalexamination and preoperative investigations like FNAC and mostly found from histopathological examinations post thyroidectomy performed for the benign thyroid diseases. Rise in incidence ofPTMC may be explainedby better presurgical and post-surgicaldiagnostic modalities. PTMC commonly seen inlong standing micro nodules of multi nodular goiter. the Treatment of PTMC has higher cure of more than 90% with early diagnosis and surgery.

II. CASE SUMMARY

A 38 year /m c/o swelling in front of the neck x 1 year, progressively increasing insize no h/o hypo/hyperthyroidism symptoms no h/o compression symptoms.

O/E- swelling of size 6x4cm in the right lobe of thyroid, moves with deglutition on palpation it is no tenderness/no warmth, cystic in consistency with multiple small nodules. **USG NECK :**was done and it is suggestive of MNG- Tirades 3 following which FNAC was done.

FNAC: Class IIBethesda system- benign adenomatoid nodule with secondary degenerative changes however in view of presence of nuclear grooves and pleomorphism need advanced histopathological correlation. patient underwent Total Thyroidectomy

INTRA OPERATIVE FINDINGS: The gland grossly enlarged right more then left specimen measuring 7x7x4.5cm nodular. Right lobe measures 7x6x4.cm. isthmus measures 2.7x I x 0.5 cm. Left lobe measures 4.5x3x2cm the gland shows multiple nodules, largest nodule measures3 cm across and the smallest nodule measures I cm across.

BIOPSY: sections from both lobes show varying sized multiple nodules of thyroid, separated by fibrous septa. the varying sized follicles are lined by flattened cuboidal epithelium and are filled with colloid areas of cystic change hemorrhage**(fig.2)**. calcification, cholesterol cleats and focal papillary hyperplasia are also seen. one foci in the right lobe shows an encapsulated lesion measuring 0.4 cm showing features of micropapillary carcinoma **(fig.1)**. Rest of the thyroid parenchyma shows extensive infiltration by lymphoid follicles

Clinical picture

specimen

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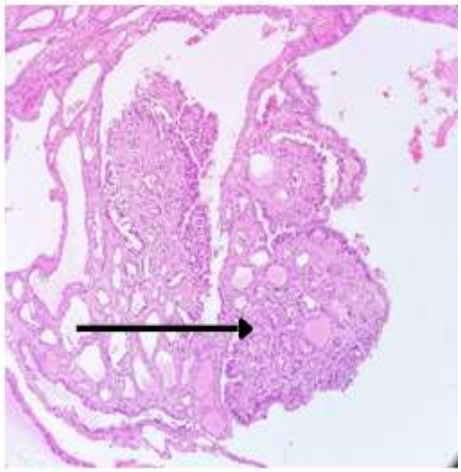
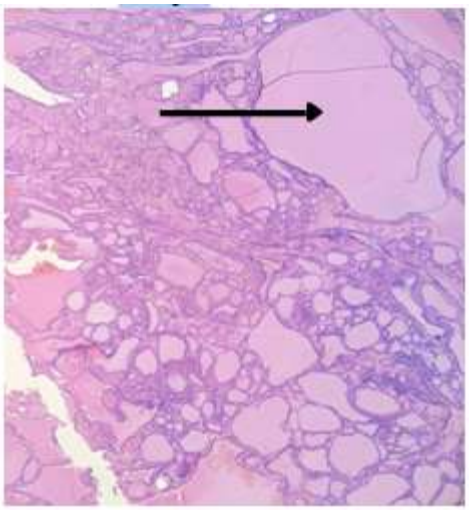


HPE fig:1



HPE fig:2

III. DISCUSSION –

Differentiated thyroid cancer, is the most frequent endocrine cancer, with a rising global incidence. Papillary thyroid micro carcinomas(PTMCs) account for up to 43% of all thyroid malignancies, and they account for approximately half of all new occurrences of papillary thyroid carcinoma (PTC). PTC with a maximum diameter of less than 1.0 cm is referred to as PTMC(1). PTMCs are commonly thought as benign tumors that have no clinical importance and have little effect on patient's survival. PTMCs, on the other hand, demonstrate wide range of disease severity and reported frequency of aggressive characteristics. These tumors are most commonly found following a his topathologic evaluation of thyroidglands removed during surgery for non-thyroidal or non-malignant thyroid illness (2).

A papillary micro carcinoma may be the initiallesion of alymphnodemetastas is that manifests clinically as a neck tumor on rare occasions. PTMC's clinical significance is currently unknown. Although most PTMC'shave a slow progression and a good prognosis, others are suspected to be linked to recurrence, distant metastasis, or death. Papillary microcarcinomas have a good prognosis and can even act like benign lesions, thus they can be treated conservatively. Microcarcinomas, on the other hand, are "real" tumors that, in some situations, require rigorous therapy. PTMC has a high risk of lymph node metastasis to the central compartment despite the absence of palpable neck nodes.

Identification of individuals with aggressive PTMC is critical because they requiread rastic treatment approach, such as traditional PTC, which includes total thyroidectomy, lymphadenectomy, central compartment surgery, and radioiodine therapy. (3) Despite the fact that there is a body of literature advocating the use of I-131 therapy for patients with PTMC, few studies have been able to show that I-131 therapy has a therapeutic advantage for patients with PTMC.

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