Occult Papillary Thyroid Carcinoma with Absence of Palpable Nodule in Thyroid Gland: A Case Report

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ABSTRACT

Papillary thyroid carcinoma presenting as isolated cervical lymphadenopathy with clinically normal thyroid gland is rarely reported.
Here is reported a case of 19-year-old female who presented with left cervical mass with clinically normal thyroid gland. After inconclusive FANC revealed metastatic papillary thyroid carcinoma. The patient subsequently underwent total thyroidectomy with left modified radical neck dissection done.
Cystic neck masses appearing in the anterior or posterior triangles of the neck are usually benign. But they can sometimes be malignant and so should be kept in the differential diagnosis and appropriately investigated.

***Key Words**: Papillary thyroid carcinoma, cervical lymphadenopathy, total thyroidectomy.*

Introduction

Papillary thyroid carcinoma is the most common thyroid cancer.1 About 80% of all thyroid cancer's cases are papillary thyroid cancer. Most commonly, papillary thyroid cancers are totally asymptomatic. However, the most common symptom is a mass in the neck.[2] Papillary carcinoma typically arises as a solid, irregular or cystic mass that comes from otherwise normal thyroid tissue.[3] Less frequently it can present as recurrent laryngeal nerve palsy, cervical cyst, Para pharyngeal mass, distant metastasis and isolated cervical lymphadenopathy, as in our patient. [4]Most palpable cervical lymph nodes are located at the mid jugular (48%) and lower jugular lymph node (29%), posterior triangle (9%), upper jugular lymph nodes (9.7%) and submandibular lymph nodes (3.2%). [5]Cystic neck masses appearing in the anterior or posterior triangles of the neck are usually benign. But they can sometimes be malignant and so should be kept in the differential diagnosis and appropriately investigated. Papillary thyroid carcinoma, uncommonly, presents as a solitary cervical cystic mass.[6]

Case report

A 19 year old female patient presented via OPD to ANTH Islamabad with the chief complaint of 2-year history of multiple small swellings in left side of neck gradually increasing in size not associated with pain, discharge however was associated with shortness of breath on lying down. There was no history of fever, voice change, increased appetite, heat or cold intolerance. No significant family history was noted. Physical examination showed multiple fixed enlarged lymph nodes of variable sizes in left side of neck occupying almost all levels of cervical lymph nodes. There was no palpable nodule in Thyroid tissue. No lymph node in right side of neck or elsewhere in body.

Base line investigations were within normal range. Ultrasound neck showed hypoechoic nodule in lower of left side of thyroid. Multiple enlarged lymph nodes at level III and IV. FNAC was suggestive pf papillary lesion. Thyroid function tests were within normal range. Thus a definitive diagnosis of papillary carcinoma thyroid was made.

Staging investigations showed thyroglobulin levels within normal range. Chest X-ray normal. CT scan showed heterogeneously enhancing lesion involving lower pole of left thyroid gland with extra thyroidal soft tissue extension inferomedial. Extensive metastatic lymphadenopathy on left side of neck (V, VII) along with subcentrimeter sized lymph nodes in level (II, III, IV, V).

Therapeutic intervention opted for the patient was total thyroidectomy with left modified radical neck dissection done. The peroperative findings showed nodule 1x1.5cm in left lobe of thyroid with massive left cervical lymphadenopathy.

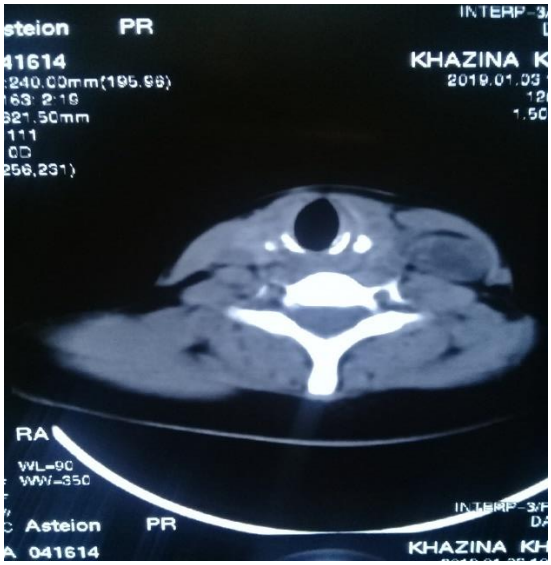

Figure 1: *MRI of patient showing papillary Thyroid carcinoma.*

Figure 2: *Peropertive picture showing lymph nodes.*

Figure 3: *After Removal of the gland*

Figure 4: *Postoperative Course*

Histopathological Outcomes

Diagnosis

Left lobe of thyroid *showed Papillary thyroid carcinoma with tumor size of 2.1X1.3X1.2. The lymph nodes were involved whereas the capsular margins were uninvolved. The pathological stage was determined to be Pt2, pN1b.*

Right lobe of thyroid *showed benign thyroid tissue which was negative for malignancy.*

Microscopic discription

Histological type of tissue showed PAPILLARY CARCINOMA CLASSIC. The margins were uninvolved with presence of lymphatic invasion. There was no vascular or perineural invasion and extrathyroidal extension were not identified.

Discussion

Papillary thyroid carcinoma is the most common thyroid malignancy, accounting for 80% of all thyroid cancers. It has a predisposition for lymphatic metastasis and occasionally metastatic lymph nodes are palpable without the primary tumour being evident. Most of the lateral neck cysts are benign such as branchial cleft cysts, dermoid cysts, teratoma, epidermoid cysts, and cystic hygromas.7 In 90% of patients in the young adult population cervical neck cysts were proven to be benign.8 Cervical lymph node metastasis of PTC can mimic benign cervical cyst clinically and radiologically when it underwent cystic degeneration. Metastasis to cervical lymph nodes could be the first presentation without identifiable primary tumour in thyroid glands. Papillary thyroid carcinoma with extrathyroidal extension (ETE) occurs in 4% to 16% of cases and carries with it an increased

risk of disease recurrence and death.9 Common ETEs include involvement of recurrent laryngeal nerve, larynx, trachea, and esophagus. Involvement of skin with sinus formation is rare, only few cases are reported.[10]

Diagnostic options to evaluate these enlarge cervical lymph nodes include ultrasound, radionuclide scans, Computed tomography (CT) scan, magnetic resonance imaging (MRI) and Fine needle aspiration (FNA). High-resolution sonography is widely used to detect and characterize thyroid nodules. Sonographic features that are found to be associated with an increased risk of malignancy include a predominantly solid composition, hypoechogenicity, absence of a hypoechoic halo, presence of microcalcifications, irregular margins, and intranodular vascularity.

The recommended treatment of patients with thyroid cancer presenting with cervical lymphadenopathy is total thyroidectomy with appropriate ipsilateral and/or modified contra lateral modified radical neck dissection. The prognosis is usually good when surgery is followed by radionuclide scanning and lifelong thyroid supplementation.

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