

Papillary Carcinoma of Thyroid – The Symptomless and Silent Carcinoma

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Abstract

Case Report

Thyroid cancers accounts for approximately 1% of all malignancies in developed countries with an estimated annual incidence of 1,22,000 cases worldwide. Thyroid enlargements may be diffuse or nodular, often with physiological changes. Thyroid nodules are more common in women and in regions of low intake of iodine. The thyroid is one of the most labile organs in the body and responds to numerous stimuli such as puberty, pregnancy, physiologic stress and various pathologic states. This functional liability of the thyroid is responsible for transient hyperplasia of the thyroidal epithelium. Here we present a case of Papillary Carcinoma of Thyroid in a 38 year male patient which was symptomless with normal thyroid function tests and without enlargement of the gland.

Keywords: Papillary carcinoma, thyroid, male patient.

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INTRODUCTION

Thyroid gland has wide and vital physiological roles in the body. The thyroid hormones affect all body organs and are responsible for maintenance of homeostasis and the body integrity. Thyroid disorders range from functional, immunological derangements to neoplastic lesions. The major function of the thyroid gland is to maintain a high rate of metabolism which is done by means of iodine-containing thyroid hormones, thyroxine and tri-iodothyronine.

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CASE REPORT

A 38 years old male patient complains of dyspnea and pricking sensation in the neck region when he was sleeping by turning towards right side. This episode was for a period of 15 seconds which was relieved when he was sitting. Thyroid profile was normal. Then the patient went for ultrasound neck and it was diagnosed as Papillary carcinoma of thyroid with

lymph node metastasis. His chest X ray was normal. Then he underwent Fine needle aspiration cytology (FNAC) from Thyroid and it was diagnosed as Papillary carcinoma of thyroid, FNAC from the adjacent sites was also done and it also revealed as Papillary carcinoma of thyroid features. Other relevant investigations were done and confirmed the diagnosis. Surgery was done and total thyroidectomy was done along with central compartment and right radical neck dissection was done. Total 51 lymphnodes were removed and among them 26 nodes were tumour positive. Complete right lobe and isthmus were tumour involved and left lobe as free of tumour. No extrathyroidal extension was there. Patient advised calcium supplements to overcome hypocalcemia.

Patient undertook Radioiodine treatment also after one month and scan showed micro metastasis to both lungs and tumour deposits in left supraclavicular node and in level 3 lymph node. He was advised Thyronorm 175 mg tablets. Radioiodine second round treatment was also done after six months and scan showed no tumour deposits. Postoperatively patient developed winging of right scapula due to any accidental injury to long thoracic nerve and he is under physiotherapy.

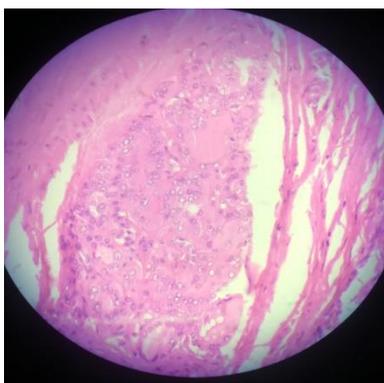


Fig-1: Section from right lobe of thyroid showing features of Papillary carcinoma [H&E,x40]

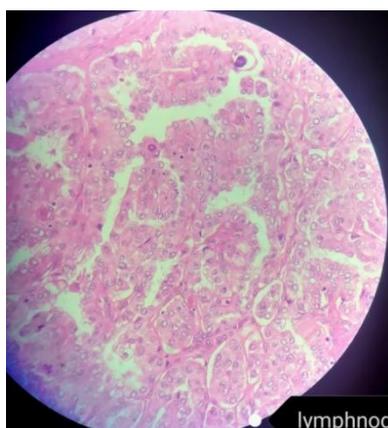


Fig-2: Section from central compartment lymph node showing tumour proper with loss normal architecture. [H&E, x40]

DISCUSSION

During the last few years, the frequency of papillary cancer has increased, but this increase in frequency is related to an improvement in diagnostic techniques and the information campaign about this carcinoma. In daily practice, thyroid mass detected either by physical examination or by ultrasound in an individual with high thyroid function tests is suggestive for a benign condition [1]. Malignant thyroid nodules appear as cold nodules on scintigraphy and they are clinically euthyroid [2].

Papillary carcinoma is a relatively common well differentiated thyroid cancer. Papillary carcinoma may be considered a variant of mixed form thyroid carcinoma. Despite its well-differentiated characteristics, papillary carcinoma may be overtly or minimally invasive [3]. In fact, these tumors may spread easily to other organs. Papillary tumors have a propensity to invade lymphatics but are less likely to invade blood vessels [4].

Papillary carcinoma typically arises as an irregular, solid or cystic mass that arises from otherwise normal thyroid tissue. Thyroid cancers are more often found in patients with a history of low- or high-dose external irradiation. Papillary tumors of the thyroid are the most common form of thyroid cancer to result from exposure to radiation. The life expectancy of patients

with this cancer is related to their age. Papillary carcinoma of thyroid can also be seen in pediatric age group. Pediatric thyroid cancers typically present as neck masses with no associated symptoms and thus come to medical attention at widely varying stages of disease progression [1]. In contrast to adult papillary thyroid carcinoma, pediatric papillary thyroid carcinoma tends to be more aggressive at presentation with higher incidence of multifocality, lymph node metastases and extracapsular extension.

Activation of the RET protooncogene through somatic rearrangements represents the most common genetic alteration in papillary thyroid carcinoma. Three main rearranged forms of RET have been described: RET/PTC and RET/PTC3, which arise from a paracentric inversion of the long arm of chromosome 10, and RET/PTC2, which originates from a 10;17 translocation. There is broad variability in the prevalence of RET/PTC rearrangement, due to different detection methods and tumor genetic heterogeneity.

The main aim of presenting this case is to know that papillary carcinoma of thyroid can present as symptomless cancer, without any thyroid enlargement and with normal thyroid function tests. Papillary carcinoma can initially present as swelling in the lymph nodes without thyroid gland enlargement. So any swelling in the neck should not be neglected as

Papillary carcinoma of thyroid initially may present with metastasis to lymph nodes.

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