

Papillary carcinoma thyroid presented with extensive local lymph nodal metastasis

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Abstract

Amongst thyroid malignancies papillary carcinoma is the most common form. It usually remains intrathyroid and carries good prognosis. In our case, it was presented with rapid onset of clinical manifestations within 2 months duration. A 54 years old male patient had history of change in voice, enlargement of thyroid with multiple cervical lymphnodes enlargement. On fine needle aspiration cytology, ultrasonography, computed tomography scan neck diagnosed as malignant thyroid lesion. He underwent total thyroidectomy with left cervical radical neck dissection. On histopathology showed invasive papillary carcinoma with extensive nodal metastasis.

Keywords: Thyroid carcinoma, Papillary carcinoma, Regional node metastasis.

Introduction

Papillary carcinoma is the most common type of thyroid carcinoma which comprises about 75- 85%.¹ Papillary carcinoma is typically slow growing malignant tumor. Many times, it remains asymptomatic. Also cases with silent thyroid nodule with significant local nodal enlargement were noted. In our case, it showed rapid clinical course with extensive regional lymph node involvement.

Case Report

A 54 years old male patient presented to oncosurgery department having history of change in voice since 2 months which got rapidly worsened and presented along with enlargement of thyroid. There was simultaneous multiple nodular masses notes on cervical region. On clinical examination, left thyroid lobe was enlarged, single nodular mass lesion measuring 1.5 x 1.0 cm and multiple left cervical nodules. The larger was measuring 3 x 2 x 1 cm. Patient was apparently alright 2 months back. He has been suffering from systemic illness of hypertension and diabetes mellitus for 3 years and getting regular treatment. He had no history of radiation, any immunological disorder or thyroid disease before 2 months. On radiological examination, ultrasonography of neck revealed left thyroid lobe enlargement with hypoechoic, lobulated mass with calcification and peripheral vascularity measuring 1.6 x 1.3 x 1.0 cm. It was suggestive of malignant mass lesion. Also left cervical nodes level I, II, III showed evidence S/O metastasis.

Multislice computed tomography scan showed ill defined, partially calcified nodular lesion in the upper pole of left hemithyroid measuring 1.7 x 1.0 cm. The lesion was hypodense and remains hypoenhancing on post contrast images. Multiple enlarged left level I, II, III, IV, V and VI lymphnodes noted. Largest

measuring 3.4 x 3.3x1.5 cm. Calcification was noted. Radiologically diagnosed as suggestive of malignant neoplasm with nodal metastasis. There was no evidence of any distant metastasis. On FNAC reported as papillary carcinoma thyroid.

Patient underwent total thyroidectomy with left cervical radical dissection. On gross left thyroid lobe showed mass measuring 1.9 x 1.3 x 1.0 cm. On cut open showed solid, grey white, papillary lesion. Areas of cyst formation, hemorrhage focal calcification was noted (Fig. 1). Left cervical lymphnodes mass was noted. Largest measuring 3.4 x 3.3x1.5 cm (Fig. 2). On histopathology diagnosed as invasive papillary carcinoma thyroid with lymphnode metastasis (Fig. 3, 4). Patient responded well to treatment and advised regular follow up.



Fig. 1: Gross thyroidectomy specimen showing solid cystic papillary tumor



Fig. 2: Gross specimen of radical lymph node dissection showing metastases

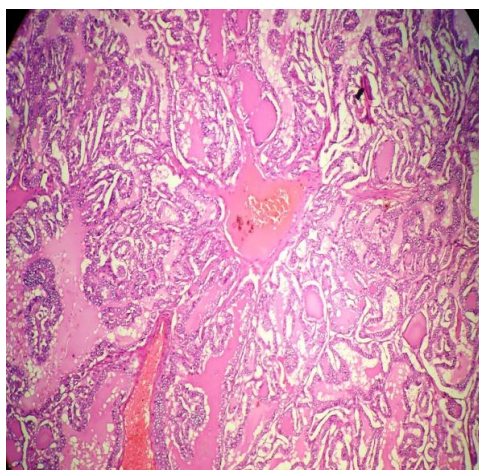


Fig. 3: Papillary carcinoma of thyroid (Haematoxylin & eosin stain, 10 x)

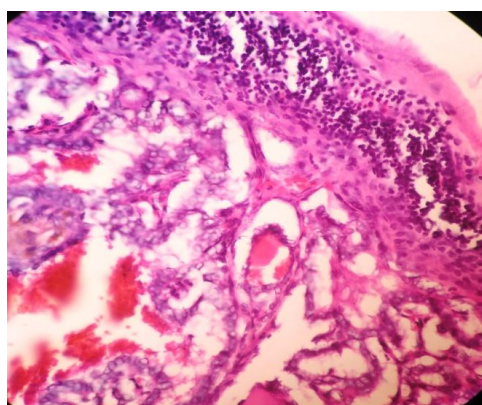


Fig. 4: Papillary carcinoma metastasis in lymphnode (Haematoxylin & eosin stain, 40x)

Discussion

Papillary carcinoma of thyroid is common thyroid malignancy with good prognosis. It is seen 2 times more in females as compared to male.² The tumors are diagnosed in 3rd–5th decade of life.³ Many times, patient remains asymptomatic and may present as nodal metastasis. Occult tumors are noted upto 24 % of cases.⁴ Majority of cases show progress of

tumor with often asymptomatic solitary nodule. In our case, it was presented with short duration history with rapid cervical lymphnode involvement. The tumor size is small as compared to nodal masses. The common etiological factors are early age exposure to neck radiation, excess iodine, exposure to nuclear explosion, Hashimoto's thyroiditis and familial occurrence etc. In our case no such association was noted.

On gross examination, tumor appears solid, firm, encapsulated or diffusely infiltrative. Areas of calcification, fibrosis, cyst, hemorrhage, scarring were noted. In 20% cases multifocal tumor is noted.⁵

On FNAC, papillary carcinoma shows branching papillae with fibrovascular core. The lining cells are cuboidal with nuclear overlapping. The nuclei are having typical optically clear nuclear chromatin (Orphan Eye Nuclei), nuclear grooves.⁶ Psammoma bodies, spindle cell metaplasia, stromal fibrosis and associated Hashimoto's thyroiditis were seen.

On histopathological findings above features are noted along with subtypes like tall columnar diffuse sclerosing, solid and follicular variants have been described. Our case showed all routine features, however there was no associated metaplasia, fibrosis or Hashimoto thyroiditis.

The regional lymphnode metastasis is observed in 29-40.9 % cases.^{7,8} The distant metastasis is rare and seen in 10-15% of cases. The sites are lungs, bones, liver, central nervous system.^{9,10}

Papillary carcinoma is biologically indolent and have an excellent prognosis. However older age at diagnosis, larger tumor size, presence of metastasis, male sex and on histopathology poorly differentiated, vascular/lymphatic invasion and certain subtypes (tall columnar diffuse subtype) of papillary cases have poor prognosis.¹¹

Conclusion

We reported a case of papillary carcinoma of thyroid which showed aggressive clinical course. It suggested although the papillary carcinoma is slow growing tumor with good prognosis, in this case appropriate treatment with removal of metastatic regional lymphnodes are important for better prognosis of patient.

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