

Papillary Thyroid Carcinoma Presenting with Ulcerated Lymph Node Mass

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ABSTRACT

Papillary thyroid cancer (PTC) is an indolent differentiated thyroid cancer with high risk of cervical lymph node metastasis. It usually presents with thyroid nodule or lateral neck node at level III or IV. Cutaneous involvement by primary thyroid nodule or neck nodes is uncommon. Literature search has shown few cases with fungated thyroid mass and only one case with ulcerated lateral nodal mass. The case report is about management of a rare neglected case of papillary thyroid cancer presenting with large ulcerated lymph node mass involving level IB to V.

INTRODUCTION

Papillary carcinoma of thyroid (PTC) accounts for 80% of all thyroid malignancy. PTC is a well differentiated, indolent tumor with high risk of metastasis to cervical

nodes in about 30-90% of cases.¹ Lymphatic spread is most common to central compartment followed by levels III, IV, and then to levels II and V.² Slow growth leads to relative long duration until the diagnosis is established. Usual presentation includes a midline or lateral neck swelling of varying size without local infiltration. The present case report is regarding the management of a rare neglected case of PTC presenting with large ulcerated lymph node mass.

Case Description: A 72-year-old man presented with history of multiple swellings in the neck since 10 years. The swelling first appeared below left ear 10 years ago which was initially gradually increasing but picked a relatively fast growth rate since last two years. Another swelling appeared in the midline of neck two years ago. Then two more distinct swellings developed on left lower part of neck one year ago. The first swelling ulcerated one



Figure 1: Pre-operative images.

and a half month back and required daily dressings. There was no history of dyspnoea, dysphagia, or voice change. On clinical examination, patient had eastern cooperative oncology group (ECOG) performance score of one. Neck examination revealed a 3x3 cm nodular mass in left lobe of thyroid that moved with deglutition and had no retrosternal extension. An ulcerated large matted lymph node mass of 12x15 cm was present in left lateral neck involving level IB, II, III, IV, V, and parotid tail. The mass had a foul smelling bloody discharge. Trachea was shifted to the right. No significant lymph nodes were appreciated on right side (Figure 1).

Fine needle aspiration cytology (FNAC) from thyroid mass showed PTC and core cut biopsy from nodel mass showed features of metastatic thyroid carcinoma. Contrast enhanced CT neck showed bulky left lobe of thyroid, isthmus, and adjacent right lobe with soft tissue density mass of 3.7x2.5 cm associated with few calcified foci (Figure 2). Multiple heterogenously enhancing soft tissue density masses were seen in left side neck along jugular chain as well as in supraclavicular region approximately 6.7x5.8 cm causing ulceroproliferating skin surface and a 4x3.8 cm mass in left parotid. Carotid

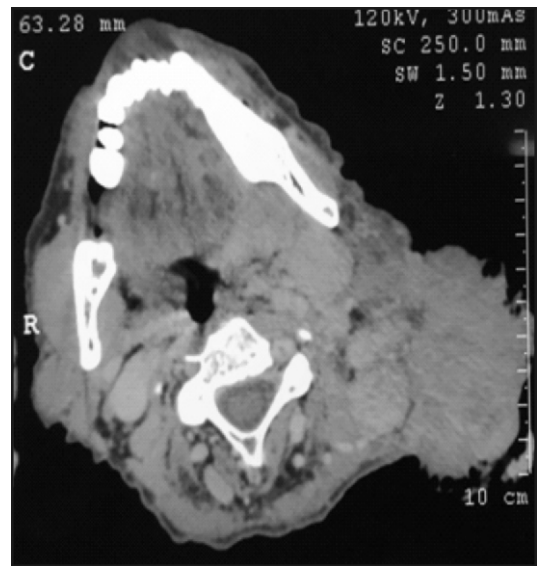
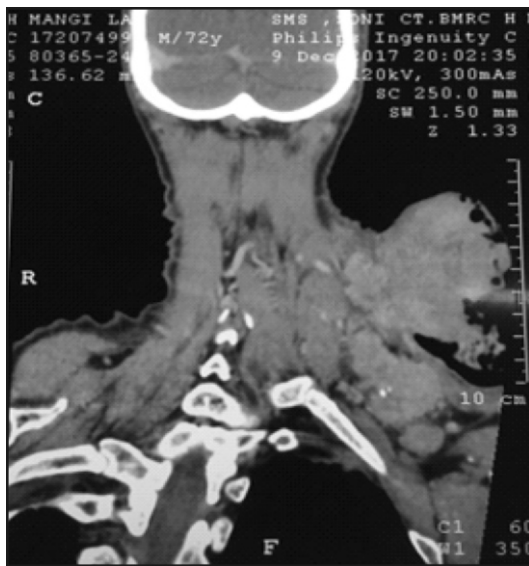


Figure 2: CT scan of neck.

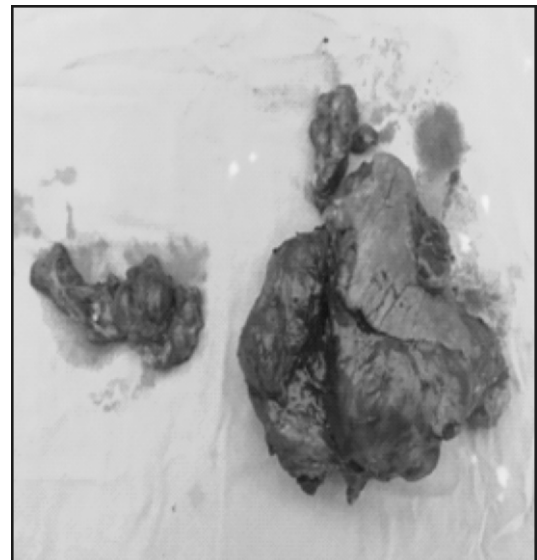


Figure 3: Intra-operative images.

artery, trachea, and sternum appeared free. Preoperative vocal cord assessment was normal. Patient was planned for surgery and adjuvant radioactive iodine therapy. An extended thyroid neck incision was taken along with island of involved skin (Figure 3).

Dissection showed level II to V matted nodal mass of 10x12 cm which had infiltrated the left internal jugular vein and tail of left parotid gland. Thyroid mass in left lobe was densely adherent to strap muscles, trachea, and common carotid. Total thyroidectomy with central compartment lymphadenectomy and left modified radical neck dissection type I (preserving spinal accessory nerve) was accomplished. Primary skin closure was achieved after mobilising the skin flap. The histopathology report confirmed the diagnosis of PTC with extracapsular extension, 17/23 lymph nodes with metastasis and perinodal spread.

DISCUSSION

Lymph node metastasis is a predictive factor of recurrence and prognosis in thyroid malignancy. Majority of studies on thyroid concentrate on management of lymph nodes in thyroid cancer, ranging from prophylactic central node dissection to radical neck dissection.

Differentiated thyroid carcinoma presenting with ulceroproliferative cervical nodal metastasis is extremely rare. This rare presentation results due to negligence of patient and indolent nature of differentiated cancers leading to asymptomatic enlargement of thyroid or nodal mass gaining enormous size. This patient presented 10 years after disease onset when foul smelling bloody discharge created discomfort.

In previous studies, there was only one report of ulcerated lymph nodes in recurrent PTC. Cruz I et al³ reported a case of 80-year-old Caucasian woman who underwent thyroidectomy and radioactive iodine (RAI) for PTC. She developed recurrent right latero-cervical mass that was left untreated and extended to skin after 12 years. Other reports mentioned patients with long standing or sub optimally treated fungating thyroid cancer. Spartalis et al⁴ reported a case of giant exophytic PTC with hemorrhagic ulcers. A case of cutaneous fungating PTC mass complicated with myiasis⁵ has been reported. Nabawi et al⁶ discussed management of eleven patients of locally advanced thyroid cancers who presented with malignant skin infiltration. All these cases were elderly people who

neglected their tumors and had not wanted any treatment until the complications compelled them.

Thyroid cancer usually spreads to level V, followed by lateral neck nodes, mainly at level III and IV. This patient had unusual onset. He had first level II LN enlargement that persisted for years until the appearance of thyroid nodule and other lateral compartment lymph nodes. The study by Lee et al⁷ showed the rate of level II LN metastasis (60%) was lower than that of level III (82%) and IV (75%). Based on the pathologic distribution of nodes, neck dissection should routinely include level II-IV and extend to level -V in primary and recurrent cases.⁸

CONCLUSION

PTC, despite being the most common and indolent variant of differentiated thyroid cancers, can have unusual presentation like squamous cell carcinomas with ulceration and involvement of level II lymph nodes. Surgery with modified radical neck dissection remains the mainstay of treatment.

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