Primary Squamous Cell Carcinoma of Thyroid-A Rare Case

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Abstract: Primary squamous cell carcinoma (PSCC) of thyroid is an extremely rare malignancy of thyroid. Hereewith, we describe a case report of a female patient who presented with swelling. FNAC misdiagnosed it as medullary carcinoma of thyroid but, after resection, biopsy revealed it to be case of squamous cell carcinoma of thyroid. After extensive investigations, it was found elsewhere, so diagnosis of PSCC of thyroid was made. Patient underwent chemotherapy and radiation, but still patients succumbed to death within a year, so documenting more patients will help in developing our understanding of diagnosis and treatment for the best care of our patients.

Keywords: Primary squamous cell carcinoma, FNAC, Chemoradiation

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I. Introduction

Primary squamous cell carcinoma (PSCC) of thyroid is an uncommon malignancy and has poor prognosis.1 PSCC of thyroid constitutes less than 1% of thyroid malignancies and has been found fatal within one year of initial diagnosis.2 Death is mainly due to persistent progression and local invasion by the tumor.3 Herein, we report a case of thyroid cancer which was misdiagnosed as a medullary carcinoma by FNAC, but final histopathological examination after resection revealed diagnosis of squamous cell carcinoma of thyroid.

II. Case Report

A 59-year-old female was presented with painless, rapidly increasing swelling over anterior neck since 2 months. The patient was otherwise asymptomatic. No history of fever, hoarseness, dysphagia, dyspnea or compressive symptoms. No significant past medical or surgical history or any previous radiation exposure in neck. Her personal history is significant she is smoker, smoking 5-6 bidis/day since 20 years. Family history was negative for malignancy and she denies of any recent weight loss. On clinical examination mass of size 8 cm x 5 cm was present in anterior part of neck, 2 cm below chin, 1 cm above sternoclavicular joint extending from one SCM to other. It was non-tender, non-pulsatile, firm to hard, nodular surface, margins were well defined, mobile only in horizontal plane, moves with deglutition. There was no bruit on auscultation. On neck examination lymph node of size 2 cm x 2.5 cm was present in left side level I lymph node 1 cm was palpable in left Level III, non-tender, firm in consistency. Oral cavity & oropharynx appeared normal on examination. On 70 degree laryngoscopy - Bilateral vocal cords were mobile. All routine investigations were normal. Thyroid function test showed euthyroid status. Serum calcitonin was normal. FNAC of lymph node showed squamous cell carcinoma of thyroid. FNAC of lymph node showed squamous cell carcinoma - well differentiated. On Ultrasound neck bilateral lobe enlarged with increased vascularity, no cervical adenopathy seen on all levels. Bilateral common carotid arteries are normal. CECT Neck showed thyroid was diffusely enlarged with mild contrast enhancement. Fat plane between gland, strap muscle & trachea was obliterated. Bilateral level V nodes enlarged with areas of necrosis (Fig 1a, 1b). Neck vessels showed a normal contour & appearance. Ultrasound abdomen was normal.

Patient underwent total thyroidectomy with left modified radical neck dissection under GA. Intraoperatively, mass was adherent to strap muscles, trachea. Strap muscles was resected. Multiple nodules were noted over surface of thyroid. Pus was oozing out through gland, sent for AFB stain & culture. Bilateral recurrent laryngeal nerve identified & preserved (Fig 2a, 2b). Parathyroid could not be assessed. Postoperatively, histopathological examination revealed a well differentiated PSCC thyroid with lymph node metastasis (Fig 3). IHC helped in making diagnosis. Tumour positive-CK 7, 19, TTF-1 negative for calcitonin. Postoperatively, diligent search made, to find out the possible primary malignant lesion of squamous
III. Discussion

Primary squamous cell carcinoma (PSCC) of thyroid is a very rare and aggressive malignancy having median survival around six months. Preop FNAC may not be helpful in diagnosis. After thorough clinical workup, primary focus must be excluded, before labelling case as a PSCC of thyroid. This case will help build awareness of aggressivity disease & lack of established treatment options. Despite rarity of disease process, further discussion regarding diagnostic criteria should be pursued.
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Figure 2a and 2b - Intraoperative picture showing preservation of recurrent laryngeal nerve, Figure 2c – showing trachea after dissection of tumour, Figure 2d – shows resected tumour.

Figure 3 – HPE showing well differentiated squamous cell carcinoma

Reference

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