IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 17, Issue 4 Ver.3 April. (2018), PP 47-50
www.iosrjournals.org

Primary SquamousCell Carcinoma of Thyroid-A Rare Case

Pankaj Kumar[1], Pallika Kumar[2],Gyan Ranjan Singh[3]
[1]*Specialist &HOD InDepartment OfOtorhinolaryngology In Dr Baba Sahebambedkar Medical College&Hospital, NewDelhi,*
[2]*Senior Resident In Department OfOtorhinolaryngology In Dr Baba Sahebambedkar Medical College &Hospital NewDelhi,*
[3]*Medical Officer InDepartment Of Otorhinolaryngologyin VMCC &Safdarjung Hospital, Newdelhi*
Corresponding author:Pankaj Kumar

Abstract*:Primarysquamouscellcarcinoma(PSCC) ofthyroidisanextremelyraremalignancyofthyroid.Herewith,w edescribeacasereport offemalepatientwhopresentedwithneckswelling. FNAC misdiagnosed it as medullary carcinomaofthyroidbut,afterresection, biopsyrevealedittobeacaseof squamous cellcarcinomaofthyroid.Afterextensive investigationsnopossibleprimaryfocusof squamous cell carcinoma was found elsewhere, so diagnosis of PSCCof thyroid was made. Patient underwentchemoradiationbutstillpatientsuccumbedtodeathwithinayear, so documentingmore patients will continue to develop our understanding of diagnosis and treatment for best care of ourpatients.*
Keywords: *Primarysquamouscellcarcinoma, FNAC, Chemoradiation*

Date of Submission: 26-03-2018 Date of acceptance: 09-04-2018

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 case of thyroid cancer which was misdiagnosed as a medullary carcinoma by FNAC, but final histopathological examination after resection revealed diagnosisofsquamouscellcarcinomaofthyroid.

II. Case Report

A59 year's old female 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 clinicalexamination massof size 8cm x5 cm was present in anterior part of neck, 2cm below chin, 1cm 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 x 2.5 cm was presentin left side level IIand lymph node 1x1cm 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 showedeuthyroid status. Serum calcitonin was normal.FNAC of thyroidshowed Medullary 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 betweengland, 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 withleft 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

cell origin, causing metastasis to thyroid. Patient underwent endoscopic & imaging studies, but no possible origin for PSCC of thyroid could be identified. Patient was referred for chemotherapy &radiotherapy.

III. Discussion

Asthyroidglandlackssquamousepithelium,PSCCofthyroid is a rare entity which represents less than 1% of thyroid carcinoma and only few cases have been reported in the literature[4]. It behaves like an anaplastic carcinoma with median survival approaching less than six months,often due to airway infiltration[5]. Secondary SCC is more common than primary one,either due to direct invasion or because of metastasis.PSCCof thyroidmainlyaffectsfemalepatientsin their fifth or sixth decade of life and usually with history of goiter[6]. In our case too female patient in her fifth decade presented withrapidly increasing swelling over anterior neck since 2 months. FNAC is reliable tool, but in our case,FNAC misdiagnosed nature of lesion preoperatively & precluded necessary preoperative workup in squamous cell carcinoma of thyroid.

Uniquemicroscopicmorphology, exclusionofotherpossible primarylesions, and help of immunohistochemistry make the final diagnosis of primary SCC of thyroid [6]. Anaplastic carcinoma, metastatic SCC, and carcinoma showing thymus-like differentiation (CASTLE) areotherpossibledifferentialdiagnosesfor PSCCofthyroid. CASTLE shows less biological aggressive course along with positive immunoreactivity for CD5[7, 8].Exclusion of primary lesions in other organs is a paramount todifferentiate betweenprimarySCCandsecondarySCC.Inourpatientno other possible primary focuses of squamous cell carcinoma were found with extensive investigation postoperatively.Currently no standard protocol for treatment of PSCC. Some studies showed greater longevity achieved using aggressive regional surgery & post-op radiotherapy, survival ~31 months[9, 10]. In our case, patient did not had residual disease postoperatively and crossed mean survival time with post-op treatment consisting of cisplatin & radiation therapy. Thus suggesting combination of surgery, cisplatin-based chemotherapy &radiation prolong patient survival.

PSCC of thyroidis rarecondition often diagnosed late in disease process leading to low survival rates. Because of rarityoutcome of chemoradiation not properly studied though studies suggest poor response to chemoradiotherapy[11, 12]. Best treatment for PSCC is early diagnosis & aggressive surgery with goal of complete resection, though rarely possible. Our patient underwent surgery followed by chemoradiation expired within a year showing aggressive nature of tumour.Documenting more patients will continue to develop our understanding of diagnosis and treatment for best care of our patients.

IV. Conclusion

Primary squamous cell carcinoma (PSCC) of thyroid is 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.

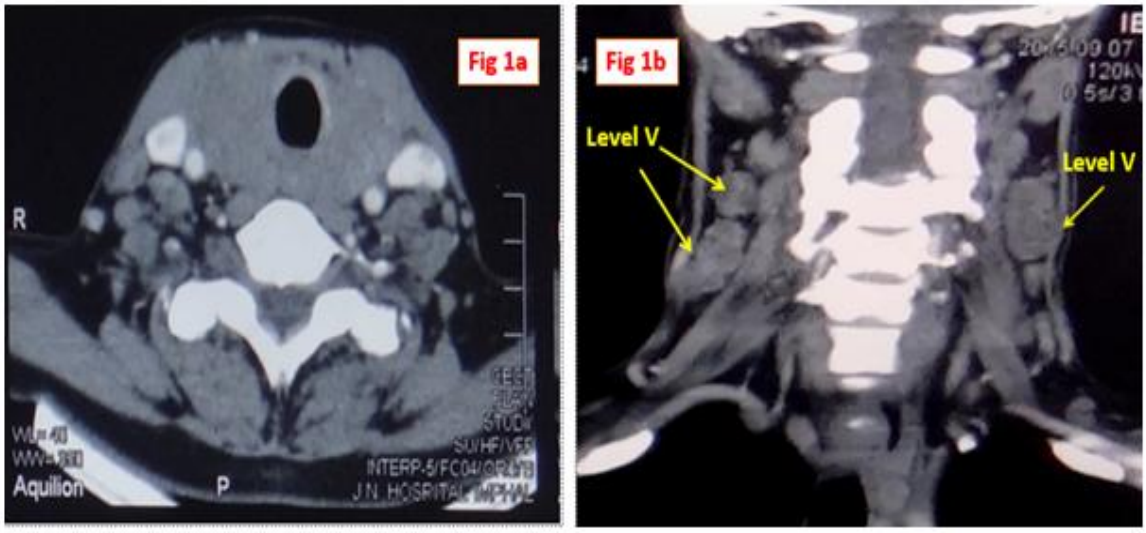

Figure 1- CECT neck axial and coronal views showing diffusely enlarged thyroid with fat plane between gland and strap muscle, trachea is obliterated, bilateral level V nodes enlarged with areas of necrosis.

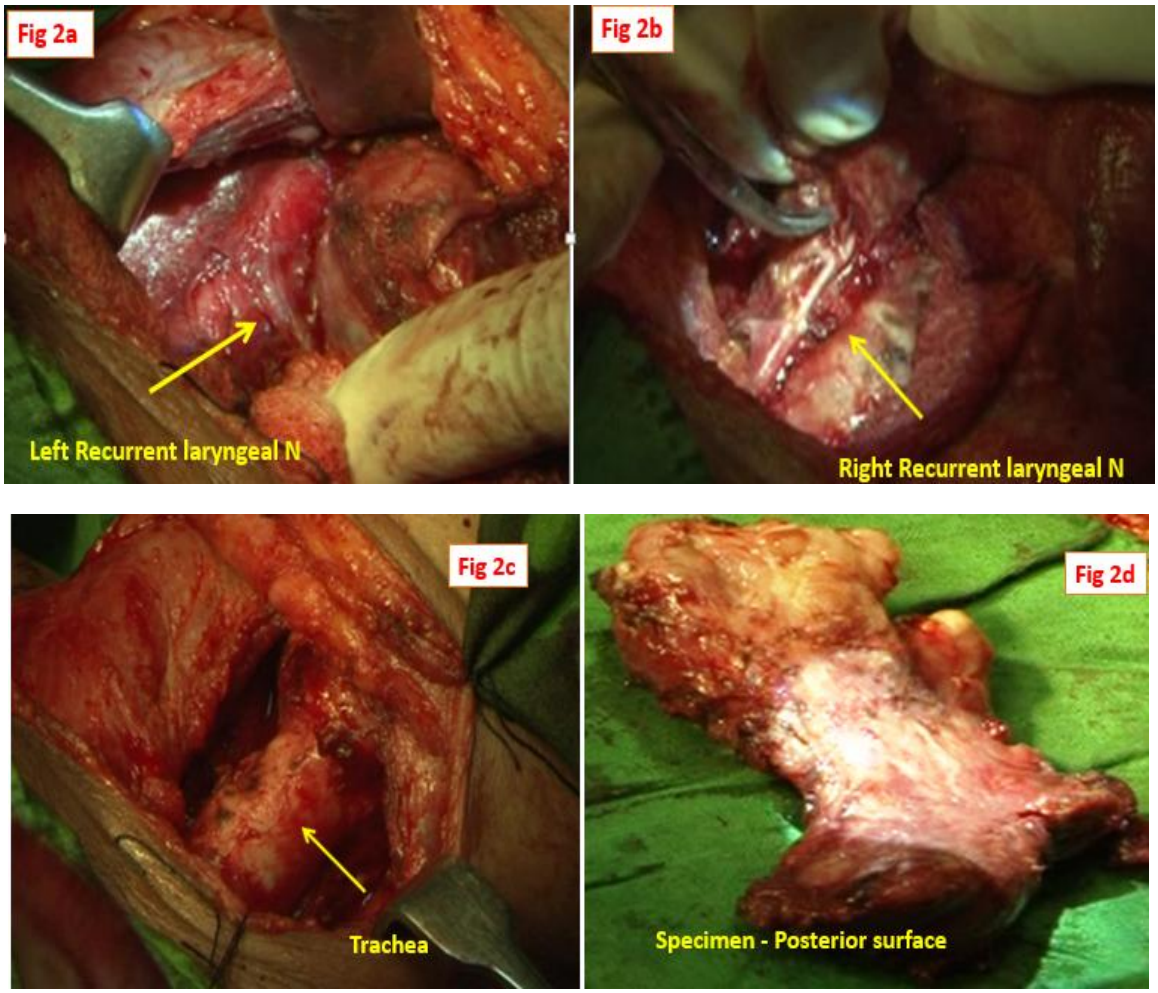

Figure 2a and 2b - Intraoperative picture showing preservation of recurrent laryngeal nerve, Figure 2c – showing trachea after dissection of tumour, Figure 2d – shows resected tumour.

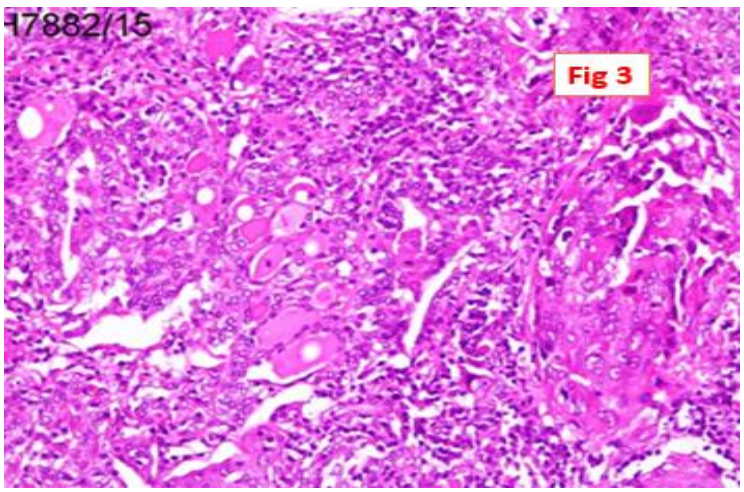

Figure 3 – HPE showing well differentiated squamous cell carcinoma

Reference

[1] Zimmer PW, Wilson D, Bell N: Primary squamous cell carcinoma of the thyroid gland. Mil Med 2003, 168:124-5. 2.
[2] Korovin GS, Cho HT, Kuriloff DB, Sobol SM: Squamous cell carcinoma of the thyroid: a diagnostic dilemma. Ann Otol Rhinol Laryngol 1989, 98:59-65
[3] Rahulkumar N. Chavan, BhargavChikkala, Cinjini Biswas, Somak Biswas, and Diptendra Kumar Sarkar, "Primary Squamous Cell Carcinoma of Thyroid: A Rare Entity," Case Reports in Pathology, vol. 2015, Article ID 838079, 3 pages, 2015.
[4] G.S.Korovin, H.T.Cho, D.B.Kuriloff, S.M.Sobol, "Squamous cell carcinoma of the thyroid: a diagnostic dilemma," AnnalsofOtology,Rhinologyand Laryngology 1989, 98(1):59–65.

[5] K.-Y. Lam, C.-Y. Lo, and M.-C. Liu, "Primary squamous cell carcinomaofthethyroidgland:anentitywithaggressiveclinical behaviour and distinctive cytokeratin expression profiles," Histopathology,vol.39,no.3,pp.279–286,2001
[6] K. Sapalidis, I. Anastasiadis, N. Panteli et al., "Primary squamous cell carcinoma of the thyroid gland," Journal of Surgical CaseReports,vol.2014,no.12,ArticleIDrju133,2014
[7] K. Kakudo, Y. Bai, T. Ozaki, K. Homma, Y. Ito, and A. Miyauchi, "Intrathyroid epithelial thymoma (ITET) and carcinoma showing thymus-like differentiation (CASTLE): CD5positiveneoplasmsmimickingsquamouscellcarcinomaofthe thyroid," Histology and Histopathology, vol. 28, no. 5, pp. 543– 556, 2013.
[8] J. T. Lui, N. Khalil, and S. P. Chandarana, "Primary squamous cell of the thyroid—an abbreviated clinical presentation," Journal of Otolaryngology—Head & Neck Surgery, vol. 43, no. 1,article17,2014
[9] Cook AM, Vini L, Harmer C. Squamous cell carcinoma of the thyroid: outcome of treatment in 16 patients. Eur J SurgOncol. 1999; 25: 606-9.
[10] Shrestha M, Sridhara SK, Leo LJ, Coppit GL 3rd, Ehrhardt NM. Primary squamous cell carcinoma of the thyroid 4. Primary squamous cell carcinoma of the thyroid gland: a case report and review. Head Neck. 2013 Oct;35(10):E299-303.
[11] M.I.Syed, M.Stewart,S.Syedetal.,"Squamouscellcarcinomaofthethyroidgland:primaryorsecondarydisease?"TheJournal ofLaryngology&Otology,vol.125,no.1,pp.3–9,2011 .
[12] A. K. Sarda, S. Bal, Arunabh, M. K. Singh, and M. M. Kapur, "Squamous cell carcinoma of the thyroid," Journal of Surgical Oncology,vol.39,no.3,pp.175–178

Pankaj Kumar "Primary Squalors Cell Carcinoma of Thyroid-A Rare Case .IOSR Journal of Dental and Medical Sciences (IOSR-JDMS), vol. 17, no. 4, 2018, pp 47-50.