International Journal of Recent Advances in Multidisciplinary Topics
Volume 4, Issue 2, February 2023
https://www.ijramt.com | ISSN (Online): 2582-7839

Oral Papillary Squamous Cell Carcinoma of Tongue: A Very Rare Presenation

Subrat Padhiary[1], Swagata Sahoo[2*], Ananya Bej[3], Someswar Chakraborty[4], Karan Baruah[5], Anandamaya Goswami[6], Avijit Garai[7], Pradeep Barik[8]

[1]*Professor, Department of Oral and Maxillofacial Surgery, Institute of Dental Sciences, Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, Odisha, India*

[2,3,4,5,6,7,8]*Post Graduate Student, Department of Oral and Maxillofacial Surgery, Institute of Dental Sciences, Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, Odisha, India*

***Abstract*: Oral Papillary Squamous Cell Carcinoma (OPSCC) is a rare and a very occasional variant of squamous cell carcinoma with somewhat of a propitious prognosis. Generally, this OPSCC affects in the 6th -7th decade of life with a slight male predilection. PSCC generally mimics Verrucous Carcinoma (VC)in its papillary and verrucous appearance, but cellular atypia is not seen in VC as compared to PSCC. Generally, PSCC are solitary lesions or a collection of papillary lesions all having fibrovascular core and some even evolving from pre-existing papilloma. A 30-year-old male patient reported to the out -patient department of Oral and Maxillofacial Surgery with complain of unusual growth on the right side of tongue for two months. Incisional biopsy was done which later confirmed us on the diagnosis being Well differentiated Papillary Squamous Cell Carcinoma of the tongue. The treatment protocol included bilateral selective omohyoid neck dissection where in the right side up to level IV neck dissection was done and on the left side up to level IV neck dissection was done. This case report provides the details regarding the post-operative quality of life and associated complications of the same.**

***Keywords*: Squamous cell carcinoma, Papilloma, Neck dissection, Recurrence.**

1. Introduction

Oral Papillary Squamous Cell Carcinoma (OPSCC) is a rare and a very occasional variant of squamous cell carcinoma with somewhat of a propitious prognosis. Generally, this OPSCC affects in the 6th -7th decade of life with a slight male predilection. PSCC generally mimics Verrucous Carcinoma (VC)in its papillary and verrucous appearance, but cellular atypia is not seen in VC as compared to PSCC [1]. Generally, PSCC are solitary lesions or a collection of papillary lesions all having fibrovascular core and some even evolving from pre-existing papillomas [2].

Only more than 80 cases of OPSCC affecting the larynx, oropharynx and nasopharynx have been reported in the Scientific literature [3].

This type of tumour histopathologically shows exophytic papillary projections, hyperkeratosis of atypical squamous epithelium with fibrovascular core and increased mitotic figures with stromal invasion. Human papillomavirus (HPV) has been identified in some head and neck squamous cell carcinoma variants that also includes adenosquamous carcinoma, basaloid squamous cell carcinoma and very recently a strong association has been made between PSCC if arising from oropharynx but not exclusively [4].

OPSCC exhibits like an exophytic or a papillary growth ranging from size 2mm to up to 4cm [5]. Generally, metastasis are infrequent with pure papillary carcinoma since they rarely invade the submucosa [7]. Human papillomavirus (HPV) E6/E7 mRNA was detected in more than half of the cases of PSCC in the larynx, oropharynx, and oral cavity suggesting an association with HPV [8]. The crucial treatment procedure includes resection of the tumour surgically with defect reconstruction with pertinent flap.

2. Case Report

A 30-year-old male patient reported to the out -patient department of Oral and Maxillofacial Surgery with complain of unusual growth on the right side of tongue for two months. Patient was apparently healthy, well built, well-nourished with no known systemic diseases. He did not have any associated symptoms of dysphagia, dysphonia, sore throat, or neck swelling. History divulged that the patient noticed the growth in the last two months and the growth was progressively increasing. There is limited mouth opening and tongue protrusion since last 2 years. Patient has habit of chewing tobacco 10-15 times per day since last 10 years and has quit 6 months back.

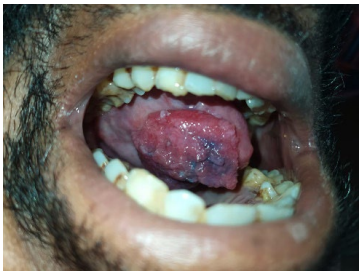

Fig. 1.

On clinical examination there were no extraoral findings.

*Corresponding author: swagatasani793@gmail.com

Intraoral examination revealed there was a single proliferative growth on the right ventrolateral border of the tongue extending anteroposteriorly from the tip of the tongue till 46 tooth region of size 2*4 cm approximately with raised borders, distinct margins, irregular surface and was erythematous in appearance.

On palpation it is non tender, sessile, firm in consistency, pedunculated and bleeds on probing. Vertical palpable fibrotic bands were present circumorally.

One single palpable right submandibular lymph node of size 1*1 cm which was non tender and not fixed to underlying tissue and contralateral level IB node was also palpable. Clinical TNM was $T_2\ M_{2C}N_0$.

According to the CECT report, a heterogeneously enhancing lesion measuring approx. 3.1*1.8*1.9cm noted along ventral aspect of right lateral tongue with infiltration into ipsilateral genioglossus muscle. Bilateral level Ib &left IV lymph nodes seen largest measuring 7.5mm in SAD at left level IV. The left level IV node is seen compressing the left Internal Jugular Vein.

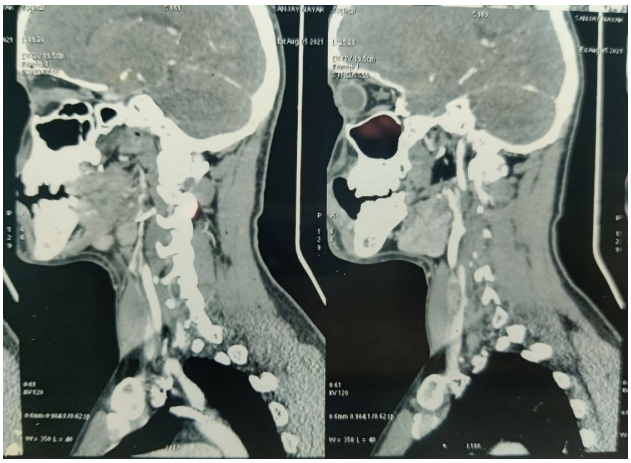

Fig. 2.

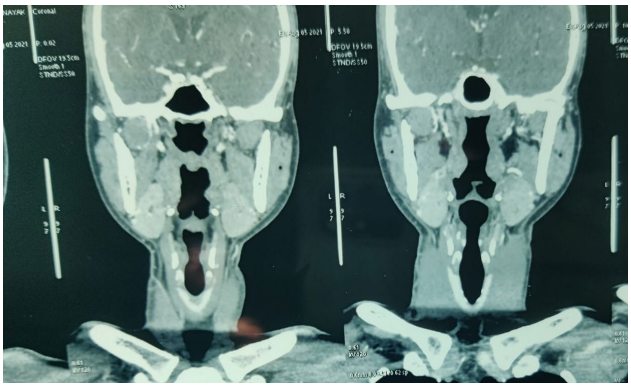

Fig. 3.

Based on the clinical findings the provisional diagnosis was made to be squamous cell carcinoma.

Incisional biopsy was done which later confirmed us on the diagnosis being Well differentiated Papillary Squamous Cell Carcinoma of the tongue.

3. Treatment

Since the case was diagnosed as well differentiated papillary squamous cell carcinoma of the tongue. The treatment protocol included bilateral selective omohyoid neck dissection where in the right side up to level IV neck dissection was done and on the left side up to level IV neck dissection was done. Resection of the mandible was done from the symphysis region. Wide local excision of the tumour was done with partial glossectomy of the right side of tongue with defect reconstruction using Radial Forearm Free Flap. Microvascular anastomosis was done along with facial artery. Mandible was fixed with two 2mm profile 4-hole plates and 8 screws of 8mm profile. The surgical site was closed via layer-by-layer suturing using Vicryl and Ethilon. Excisional report reveals Depth of invasion 8.4mm. There is no perineural and Lymphovascular invasion. All margins are found to be free of invasion. All nodes are free of invasion except right side Ib.

Pathological staging was $pT_2N_1M_X$

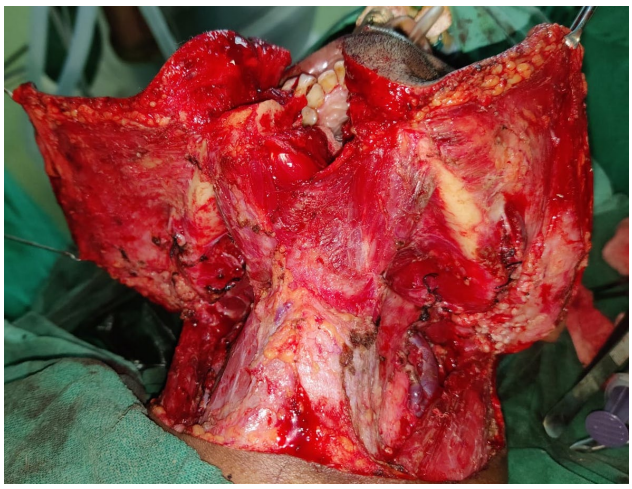

Fig. 4.

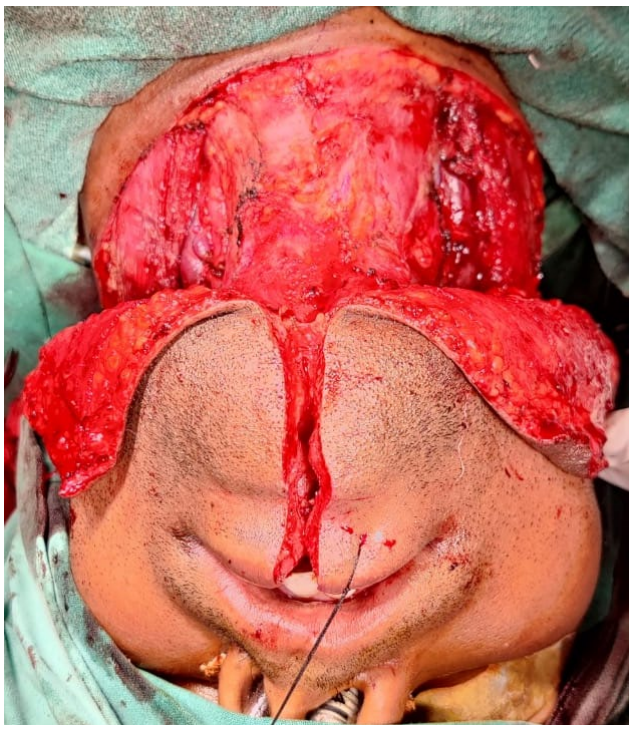

Fig. 5.

Then patient was sent for radiotherapy. After 2months patient came with a swelling on the left side of neck which was immobile in nature. CECT neck reveals nodular heterogeneously enhancing thickening of skin and subcutaneous tissue of neck anterior to thyroid cartilage. Few enlarged left level IV and right level Ib were seen. PET-CT report revealed that involvement of level IV and level V lymphnode of left side of size 3.5cm X 3.1cm. Patient advised for chemotherapy.

4. Discussion

Regardless of OPSCC being a distinctive form of conventional squamous cell carcinoma, it has a favourable prognosis despite its high rate of recurrence [1]. Generally, OPSCC affects the geriatric age group of patients above the age of 60 years. According to a study done by Ding et al which comprised of 12 OPSCC patients they reported the mean age of patients to be 72.9 years and all of them were in their initial stage. Talking about gender predilection studies done by Ding et al and Argyris et al they revealed female to be more prone to OPSCC with F:M ratio of 1.75:1 and 1.4:1 respectively. Clinical presentation of OPSCC is like a subdued, pulverulent, polypoid exophytic papillary growth ranging from 0.2 cm to up to 5cm in size. Another study done by Russel et al consisting of 52 cases of OPSCC based on their location of occurrence found that 36.5% of OPSCC was affecting the larynx, 34.6% of OPSCC was found affecting the oral cavity, 13% was found affecting the oropharynx. Generally, PSCC are solitary lesions or a collection of papillary lesions all having fibrovascular core and some even evolving from pre-existing papillomas [2].

Since there is no proper literature present for specific sites for OPSCC occurrence, so a study done by Boa et. al on 56 cases of OPSCC revealed the most common site to be buccal mucosa followed by tongue, palate, lower lip, floor of mouth and lastly oropharynx. There is a distinct relationship between verrucous carcinoma and OPSCC where VC being a neoplasm exhibits hyperkeratosis with broad rete pegs with no stromal invasion whereas OPSCC has malignant changes with minimal keratinisation and associated cellular atypia. OPSCC has two variants namely: 1. Papillary form 2. Broad based exophytic form [3]. Papillary form is characterised by thin multiple finger like projections with fibrovascular core whereas exophytic form has broad, bulbous exophytic round projections. A study done by Argyris et al observed that out of 40 cases of OPSCC, 39 cases showed tumour invasion i.e., 91 % cases showed invasion.

Treatment plan for OPSCC should be aggressive and similar to any other conventional oral squamous cell carcinoma and should be based on its stage of invasion.

OPSCC generally has better prognosis than SCC but worse than verrucous carcinoma.

5. Conclusion

Oral Papillary Squamous Cell Carcinoma (OPSCC) is a rare and a very occasional variant of squamous cell carcinoma with somewhat of a propitious prognosis. Regardless of OPSCC being a distinctive form of conventional squamous cell carcinoma, it has a favourable prognosis despite its high rate of recurrence. Hence the treatment plan for OPSCC should be aggressive and similar to any other conventional oral squamous cell carcinoma and should be based on its stage of invasion.

References

[1] Faraj Alotaiby, Fenglin Song, Brian J. Boyce, Dengfeng Cao, Yulin Zhao And Jinping Lai, “Unusual Papillary Squamous Cell Carcinoma of the Tip of Tongue Presenting in a Patient Status Post Heart Transplant.”

[2] Yonara Maria Freire Soares Marques, Camila Fragata Chicaro, Mauro Tosta, Luiz Paulo Kowalski, and Décio dos Santos Pinto, “Papillary squamous cell carcinoma of the tongue.”

[3] K. P. Karthik, R. Balamurugan, T. Sahana Pushpa, “Oral papillary squamous cell carcinoma (OPSCC): A rare presentation in the palate,” RYA COSMO Foundation Hospital, Chennai, India

[4] Mitra Mehrad, Danielle H. Carpenter, Rebecca D. Chernock, Hongwei Wang, Xiao-Jun Ma, Yuling Luo, Jingqin Luo, James S. Lewis, and Samir K. El-Mofty, “Papillary Squamous Cell Carcinoma of the Head and Neck Clinicopathologic and Molecular Features with Special Reference to Human Papillomavirus.”

[5] Yewei Ding, Liwei Ma, Linjun Shi, Jinqiu Feng, Wei Liu, Zengtong Zhou, “Papillary squamous cell carcinoma of the oral mucosa: a clinicopathologic and immunohistochemical study of 12 cases and literature review.”

[6] Qi Xiaofeng and Han Wei, “Papillary Squamous Cell Carcinoma of the Cheek.”

[7] Fernando Cobo, Paloma Talavera, and Ángel Concha, “Relationship of Human Papillomavirus with Papillary Squamous Cell Carcinoma of the Upper Aerodigestive Tract: A Review.”

[8] Kosuke Taniguchi, Mifumi Nakao, Mana Hayakawa, Kumiko Mori, Takeshi Nakashima, “A case of synchronous multiple oral papillary squamous cell carcinoma of the tongue and gingiva.”

[9] Sujata S. Kumbhar, Avinash Mane, Garima Agarwal, Shoaib Khoja, Vaidehi Nagar, Divya Bhrambhatt. “Papillary Squamous Cell Carcinoma: A Rare Variant of Oral Squamous Cell Carcinoma.”

[10] Vickie Y. Jo, Stacey E. Mills, Mark H. Stoler, and Edward, “Papillary Squamous Cell Carcinoma of the Head and Neck Frequent Association with Human Papillomavirus Infection and Invasive Carcinoma.”