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A case report

Management of Squamous Cell Papilloma on The Lateral Border of The Tongue Using Excision Surgery: A case report

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Abstract:

Background: Squamous cell papilloma is a benign epithelial proliferation of the oral mucosa, commonly associated with low-risk human papillomavirus infection. It typically presents as a small, solitary, asymptomatic lesion. However, lesions arising on the lateral border of the tongue may raise diagnostic concern due to the high-risk nature of this anatomical site for malignancy.

Case Presentation: A 52-year-old female presented with a six-month history of a thickened and irregular sensation on the right lateral border of the tongue and was not associated with any symptoms. Clinical examination revealed a lobulated exophytic mass measuring approximately 3 × 2 × 2 cm. Given the lesion's size and location, an incisional biopsy was performed, and histopathological examination demonstrated stratified squamous epithelium with papillomatosis, acanthosis, and hyperkeratosis without dysplasia, consistent with squamous cell papilloma.

Management and Outcome: Definitive surgical excision was performed under general anesthesia due to lesion size, anatomical considerations, and controlled systemic hypertension (ASA II). Complete surgical excision was achieved with preservation of tongue function, minimize the risk of recurrence and promote optimal healing. Postoperative healing was uneventful, and no recurrence was observed at 2 weeks follow-up.

Conclusion: Large squamous cell papillomas of the lateral tongue are uncommon and may clinically mimic more serious pathology. Histopathological confirmation is essential for definitive diagnosis. Careful surgical planning, including general anaesthesia selection, ensures favourable functional outcomes and low recurrence risk. Awareness of atypical presentations, accurate diagnosis and appropriate clinical management lead to excellent prognosis.

Keywords: Squamous cell papilloma; lateral tongue; oral surgery; case report

Introduction

Squamous Cell Papilloma (SCP) is a benign epithelial proliferation of the oral mucosa characterized by exophytic papillary growth supported by fibrovascular connective tissue cores. It represents one of the most common benign papillary lesions

encountered in oral pathology and is frequently associated with low-risk subtypes of Human papillomavirus (HPV), particularly types 6 and 11 [1], [2]. These viral strains are considered to have minimal oncogenic potential compared to high-risk HPV types.

Clinically, oral squamous cell papilloma typically presents as a solitary, slow-growing, painless lesion with a pedunculated or sessile base and a characteristic cauliflower-like surface. Most reported lesions are small, generally measuring less than 1 cm in diameter [3]. Common intraoral sites include the soft palate, uvula, lips, and tongue [4]. Despite its benign nature, the lateral border of the tongue represents a high-risk anatomical site due to its strong association with oral squamous cell carcinoma. Therefore, exophytic lesions arising in this region require careful evaluation and histopathological confirmation to exclude dysplasia or malignant transformation [5].

Histopathological examination of SCP characterized by extensive coalescing papillary lesions (papillomatosis), acanthosis, hyperkeratosis, and stratified squamous epithelium forming finger-like projections supported by fibrovascular cores, typically without cytological atypia [1], [6]. Complete surgical excision remains the treatment of choice, providing both definitive diagnosis and curative management. Recurrence is uncommon when adequate margins are achieved [3].

Although SCP is generally small and asymptomatic, unusually large lesions may pose diagnostic challenges, particularly when located at high-risk sites such as the lateral tongue. The present case report describes the clinical presentation, surgical management, and histopathological findings of a relatively large squamous cell papilloma arising on the lateral border of the tongue in an older adult patient, highlighting the importance of individualized surgical planning and mandatory histopathological assessment.

Case Presentation

A 52-year-old female patient presented to M. Natsir Regional Hospital with a chief complaint of a thickened and a mild discomfort sensation on the tongue. The patient reported that the condition had been present for approximately six months and had gradually increased in size. There was no associated pain, bleeding, or ulceration, but the patient described discomfort due to the irregular surface of the lesion. **(Fig.1)**

On general physical examination, the patient's blood pressure was 165/100 mmHg, pulse rate was 85 beats per minute, and respiratory rate was 20 breaths per minute. She was subsequently evaluated by an internal medicine specialist and diagnosed with hypertension. The patient was advised to take amlodipine 5 mg once daily as antihypertensive therapy.

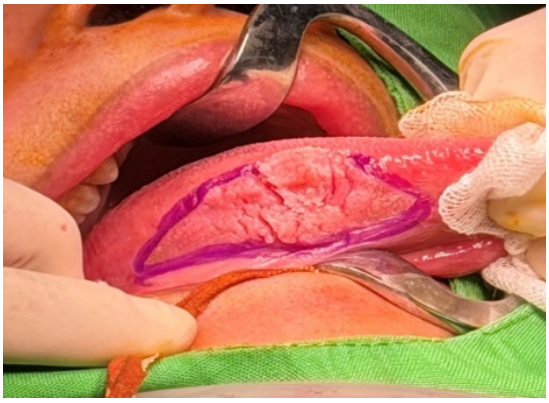

Figure 1: Preoperative

Extraoral examination revealed a symmetrical face with no palpable cervical lymphadenopathy. No signs of facial swelling or asymmetry were observed. Intraoral examination demonstrated an exophytic tissue growth located on the right lateral border of the tongue measuring approximately 3 × 2 × 2 cm. The lesion appeared lobulated with a fissured and papillary surface texture. On palpation, the surface was rough in texture, non-tender, and without induration. The surrounding mucosa appeared normal. Oral hygiene status was moderate, and several posterior teeth were missing.

Laboratory examination results were within normal limits, including haemoglobin level

of 12.5 g/dL, erythrocyte count of 4.39 × 10^6/µL, haematocrit of 37.0%, creatinine level of 0.80 mg/dL, and urea level of 18 mg/dL. Hepatitis B surface antigen (HBsAg) was non-reactive. **(Fig.2)** Chest radiography showed no abnormalities. **(Fig.3)**

Hematologi otomatik			
Hemoglobin	12.5	14.0 - 17.4	g/dL
Eritrosit	4.39	4.5 - 5.5	10^7/µL
Hematokrit	37.0	42 - 52	%
MCV	84.3	84 - 96	fL
MCH	28.5	28 - 34	pg/cell
MCHC	33.8	32 - 36	g/dL
RDW-CV	13.5	11.5 - 14.5	%
Leukosit	9.7	5.0 - 10.0	10^3/mm^3
Trombosit	368	150 - 400	10^3/µL
PT			
PT	11.20	10 - 12.7	detik
APTT			
Pasien APTT	29.30	23.0 - 34.7	detik
Ureum			
Ureum	18	20 - 50	mg/dL
Creatinin (Darah, urine)			
Creatinin (Darah, urine)	0.80	0.5 - 1.5	mg/dL
S.G.O.T			
S.G.O.T	21	< 38	U/L
S.G.P.T			
S.G.P.T	31	< 40	U/L
HBSAG			
HBsAg Rapid	Non Reaktif	Non Reaktif	

Figure 2: Laboratory Test Result

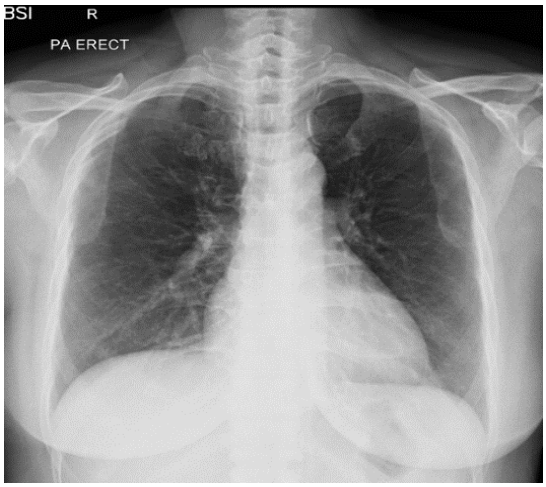

Figure 3: Chest X-Ray Examination Result

An initial incisional biopsy was performed to establish a definitive diagnosis. Histopathological examination revealed stratified squamous epithelium exhibiting papillomatosis, acanthosis, and hyperkeratosis. The epithelial cells showed monomorphic nuclei without evidence of dysplasia or malignant transformation. These findings were consistent with squamous cell papilloma.

Management

The patient underwent minor oral surgical intervention in the operating room consisting of complete excision of the lesion under general anaesthesia, followed by histopathological examination.

Preoperatively, the patient was referred for internal medicine consultation due to elevated blood pressure. Based on the consultation, the patient had a history of controlled hypertension and had been routinely taking amlodipine 5 mg. Regular blood pressure monitoring was recommended. The patient was classified as American Society of Anaesthesiologists (ASA) Physical Status II.

General anaesthesia was selected considering the patient's systemic condition, the large size of the lesion (approximately 3 × 2 × 2 cm), and the anticipated difficulty in controlling tongue movement if the procedure were performed under local anaesthesia alone. The decision aimed to ensure optimal surgical access, airway protection, and patient safety.

Following induction of general anaesthesia and nasotracheal intubation, aseptic preparation was carried out using 10% povidone-iodine solution applied to both extraoral and intraoral surgical fields. Sterile draping was performed, and an oropharyngeal throat pack was placed to prevent aspiration of blood and debris during the procedure. Adjunctive local anaesthesia was administered using an infiltration technique with 2% lidocaine containing epinephrine 1:80,000 around the lesion to enhance intraoperative haemostasis and postoperative analgesia.

After adequate vasoconstriction was achieved, the surgical margins were carefully delineated using a sterile surgical marker to outline the planned incision line. A safety margin of clinically normal surrounding mucosa was included to ensure complete excision of the lesion and reduce the risk of recurrence.

An elliptical incision was then performed along the predetermined outline using a scalpel blade No. 15. The incision extended through the mucosa and submucosa, preserving the underlying intrinsic tongue musculature as much as possible. A mucosal flap was gently elevated to allow adequate visualization and access to the base of the lesion. **(Fig.4)**

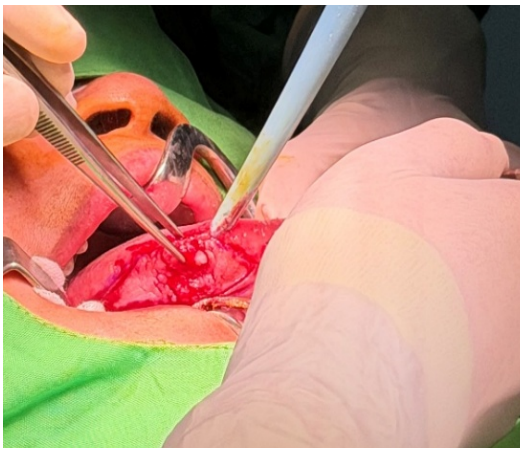

Figure 4: An elliptical incision

Sharp and blunt dissection techniques were used to separate the lesion from the surrounding tissues. Particular attention was given to maintaining clear margins while minimizing trauma to adjacent structures. The mass was excised completely and removed as a single specimen.

Haemostasis was achieved using a combination of pressure application and bipolar electrocautery. The surgical field was irrigated with sterile normal saline to ensure removal of debris and to inspect for active bleeding. **(Fig.5)**

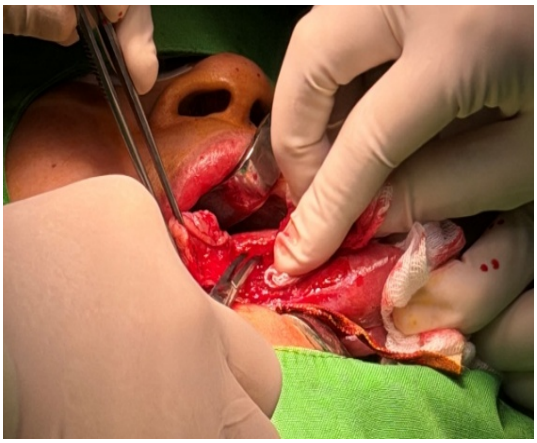

Figure 5: Control Bleeding

The wound margins were sutured without tension with interrupted sutures. **(Fig.6)** The throat pack was subsequently removed, and careful inspection was performed to ensure no retained materials remained prior to extubation. The excised specimen was immediately placed and submitted for definitive histopathological evaluation.

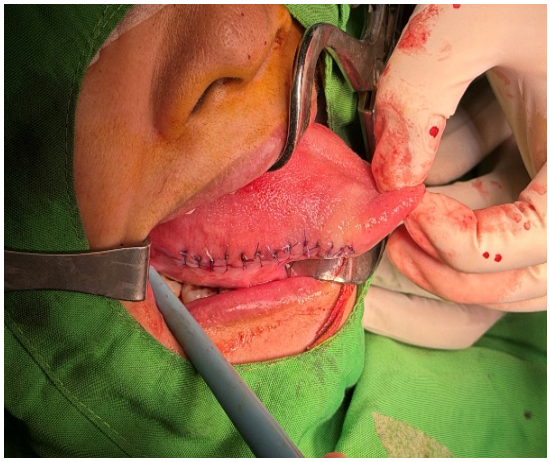

Figure 6: Interrupted Sutures

Following completion of the procedure, the patient was extubated after thorough suctioning of the oropharynx and confirmation that the throat pack had been removed. The patient was transferred to the recovery room for postoperative monitoring. Vital signs, including blood pressure, pulse rate, respiratory rate, and oxygen saturation, were closely observed. No immediate postoperative complications were noted.

Postoperatively, the patient received intravenous ceftriaxone 1g/12 hours IV, ketorolac injection 30 mg/12 hours, and dexamethasone 5 mg/8 hours. Discharge medications included cefadroxil 500 mg twice daily, mefenamic acid 500 mg thrice daily, dexamethasone 5mg thrice daily, and ascorbic acid 25mg thrice daily. The patient was also advised to continue her routine antihypertensive medication (amlodipine 5 mg once daily) and to monitor blood pressure regularly.

Instructions were provided regarding maintenance of oral hygiene, including gentle rinsing with antiseptic mouthwash after 24 hours, avoidance of spicy, acidic, or hard-textured foods, and minimization of

tongue movement that could cause mechanical irritation to the surgical site. The patient was advised to consume a soft diet for several days.

At the 14-day postoperative follow-up, the surgical site demonstrated satisfactory healing with no signs of infection, hematoma, or wound dehiscence. Mild oedema was observed during the early healing phase but resolved spontaneously. Sutures remained intact and showed no evidence of inflammatory reaction. **(Fig.7)**

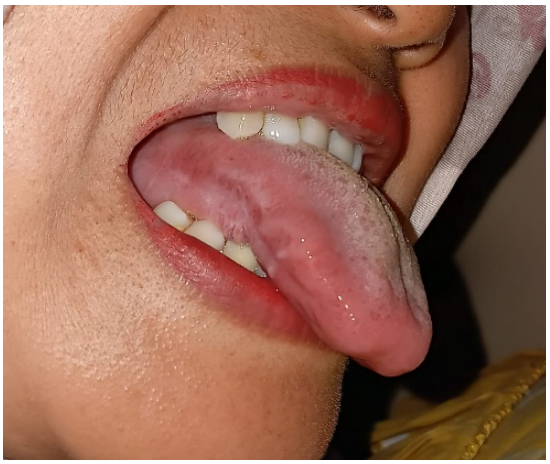

Figure 7: Follow up after two weeks

Histopathological examination revealed stratified squamous epithelium exhibiting prominent papillomatosis, acanthosis, and hyperkeratosis. The epithelial projections formed exophytic papillary structures supported by connective tissue cores. The epithelial cells demonstrated monomorphic nuclei without cytological atypia or dysplastic changes. Based on these histopathological features, a definitive diagnosis of squamous cell papilloma was established. **(Fig.8)**

Diagnosa Klinik	Papiloma lateral lidah (D)
Makroskopik	Sepotong jaringan putih kecoklatan, ukuran ± 3x2x2 cm. Penampang putih kecoklatan. Cetak 4 cup.
Mikroskopik	Dalam sediaan yang kami terima mikroskopis tampak potongan jaringan yang dilapisi oleh epitel berlapis gepeng yang mengalami papilomatosis, akantosis, hiperkeratosis dengan inti monomorf. Stroma dibawahnya mengandung sebukan limfosit, sel plasma serta kapiler-kapiler.
Kesimpulan	**Squamous cell papilloma.**

Figure 8: Histopathological examination result

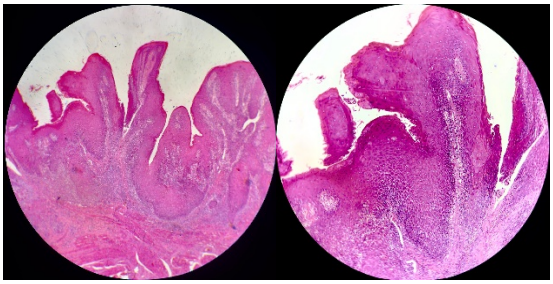

Figure 9: Histopathological Features

Discussion

Squamous Cell Papilloma is a benign epithelial proliferation of the oral mucosa commonly associated with low-risk subtypes of Human papillomavirus (HPV), particularly types 6 and 11 [2], [7]. Despite its benign nature, histopathological confirmation remains essential due to clinical overlap with other verrucous lesions and potentially malignant disorders [8].

Oral squamous cell papilloma are typically small, slow-growing lesions measuring less than 1 cm in diameter [9]. The present case is clinically significant because of its relatively large size (3 × 2 × 2 cm) and location on the lateral border of the tongue, an anatomical site strongly associated with oral squamous cell carcinoma [5]. These factors warranted careful evaluation and preoperative biopsy to exclude dysplasia or malignancy.

Although SCP can occur across a wide age range, it is more frequently reported in younger or middle-aged adults [9]. The occurrence in a 52-year-old patient, combined with progressive enlargement over six months, further contributed to the diagnostic consideration. Histopathological examination revealed papillomatosis, acanthosis, and hyperkeratosis without epithelial dysplasia, confirming the benign diagnosis.

Complete surgical excision remains the treatment of choice, particularly for large or strategically located lesions. Recurrence rates after excision are generally low, ranging between 4–10%, depending on surgical modality and follow-up duration [3], [10]. While many papilloma can be managed under local anaesthesia, the lesion's size,

location, and anticipated tongue movement justified excision under general anaesthesia in this case to optimize surgical precision and airway protection.

Overall, this case reinforces the importance of histopathological assessment for exophytic lesions of the lateral tongue and highlights that individualized surgical planning can achieve favourable functional outcomes with minimal recurrence risk. Written informed consent was obtained from the patient for publication of this case report and accompanying clinical images. Patient anonymity has been preserved throughout the manuscript.

Conclusion

An unusually large squamous cell papilloma arising on the lateral border of the tongue may clinically mimic more serious pathology due to its size and high-risk location. This case underscores the necessity of histopathological confirmation for definitive diagnosis and highlights that complete surgical excision, with appropriate perioperative planning, provides excellent functional outcomes and low recurrence risk. Careful evaluation and individualized management remain essential when benign-appearing lesions occur in anatomically high-risk sites

References

1. B. W. . Neville, D. D. . Damm, C. M. . Allen, and A. C. . Chi, *Oral and maxillofacial pathology*. Elsevier, 2016.
2. S. Syrjanen, “Human papillomavirus infections and oral tumors,” Med. Microbiol. Immunol., vol. 192, no. 3, pp. 123–128, Aug. 2003, doi: 10.1007/s00430-002-0173-7.
3. J. Toledano-Serrabona, M. Lopez-Ramirez, A. Sanchez-Torres, A. Espana-Tost, and C. Gay-Escoda, “Recurrence rate of oral squamous cell papilloma after excision with surgical scalpel or laser therapy: A retrospective cohort study,” Med. Oral Patol. Oral Cir. Bucal, pp. 0–0, 2019, doi: 10.4317/medoral.22943.
4. L. M. Abbey, D. G. Page, and D. R. Sawyer, “The clinical and histopathologic features of a series of 464 oral squamous cell papillomas,” Oral Surgery, Oral Medicine, Oral Pathology, vol. 49, no. 5, pp. 419–428, May 1980, doi: 10.1016/0030-4220(80)90286-8.
5. S. Warnakulasuriya, “Clinical features and presentation of oral potentially malignant disorders,” Oral Surg. Oral Med. Oral Pathol. Oral Radiol., vol. 125, no. 6, pp. 582–590, Jun. 2018, doi: 10.1016/j.oooo.2018.03.011.
6. J. A. . Regezi, J. J. . Sciubba, and R. C. K. . Jordan, Oral pathology : clinical pathologic correlations. Elsevier/Saunders, 2017.
7. S. Sasidharanpillai, N. Ravishankar, V. Kamath, P. Bhat, P. Bhatt, and G. Arunkumar, “Prevalence of Human Papillomavirus (HPV) DNA among Men with Oropharyngeal and Anogenital Cancers: A Systematic Review and Meta-Analysis,” Asian Pacific Journal of Cancer Prevention, vol. 22, no. 5, pp. 1351–1364, May 2021, doi: 10.31557/APJCP.2021.22.5.1351.
8. H. Tebcherany, A. Grandhe, and A. Khocht, “Oral Squamous Papilloma Mimicking Oral Verrucous Leukoplakia,” Cureus, Nov. 2022, doi: 10.7759/cureus.31739.
9. M. Fatahzadeh et al., “Oral human papillomavirus detection in older adults who have human immunodeficiency virus infection,” Oral Surg. Oral Med. Oral Pathol. Oral Radiol., vol. 115, no. 4, pp. 505–514, Apr. 2013, doi: 10.1016/j.oooo.2012.11.004.
10. G. Palaia, C. Ciolfi, A. Del Vecchio, A. Ciolfi, G. Tenore, and U. Romeo, “Prevention of Recurrence of Oral HPV-Related Lesions: Systematic Review of the Literature and Meta-Analysis,” *Applied Sciences*, vol. 11, no. 9, p. 4194, May 2021, doi: 10.3390/app11094194