Case Report
DOI: https://doi.org/10.70749/ijbr.v3i8.2047

INDUS JOURNAL OF BIOSCIENCE RESEARCH
https://ijbr.com.pk
ISSN: 2960-2793/ 2960-2807

Schwannoma Presenting as a Cheek Cyst: A Case Report

Syeda Yusra Hassan[1], Salman Ahmed[1], Qurat ul Ain[1], Shamsa[1], Murtaza Ahsan Ansari[1]

[1]Department of Otorhinolaryngology, DOW University Hospital, Karachi, Pakistan

ARTICLE INFO

Keywords: Schwannoma, Cheek Cyst, Intra Oral.

Correspondence to: Syeda Yusra Hassan, Department of Otorhinolaryngology, DOW University Hospital, Karachi, Pakistan.
Email: yusrahassan113@gmail.com

Declaration
Authors' Contribution: Mentioned at the end of the paper.

Conflict of Interest: No conflict of interest.

Funding: No funding received by the authors.

Article History
Received: 03-06-2025 Revised: 26-07-2025
Accepted: 10-08-2025 Published: 18-08-2025

ABSTRACT

Schwannomas are painless, slow-growing tumors arising from nerve sheath. They are exceedingly rare. Some common sites include vestibule-cochlear region and parapharyngeal space but intraoral schwannomass are only 1 percent. The tongue is the most frequently encountered intraoral site, followed by the palate, floor of mouth, buccal mucosa, lips, and mandible. Here we are reporting a very unique case of Intra-oral schwannoma presented as a cheek cyst in a middle-aged man with no signs and symptoms. He came to us because of the cosmetic disfigurement caused by the cyst. This emphasizes the importance of keeping schwannoma in the differential diagnosis of cheek cysts.

INTRODUCTION

Schwannoma is equivalent to nerve sheath tumors or neurolemomas. They originate from Schwann cells within the perineurium. They generally manifest in individuals aged 40 to 60 years, exhibit no gender bias, and are characterized by painless, gradually enlarging ectodermal origins. For a cystic classification, three criteria must be satisfied: hypodensity or hypointensity on CT or MRI, preoperative identification of the cystic component, and positivity for the S-100 immunohistochemical marker in the membrane. The prognosis is favourable and recurrences are typically infrequent. The vestibulocochlear region associated with the vestibulocochlear nerve is the predominant site for schwannomas in the head and neck area. The tongue is the most prevalent site for schwannomas in the oral cavity, while buccal or cheek schwannomas are exceedingly uncommon. The etiology is unknown, but it is postulated that the lesion arises by proliferation of Schwann cells at one point inside the perineurium. The lesion will cause the displacement and compression of the surrounding normal nerve tissue.

CASE PRESENTATION

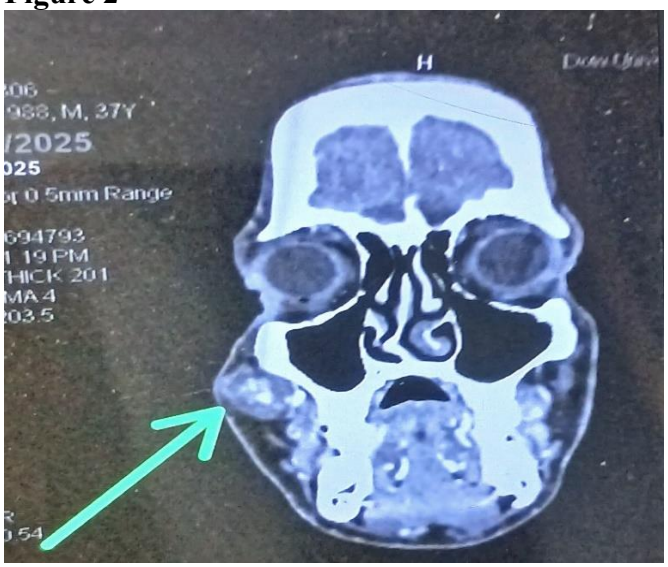
A 37-year-old married man with no known comorbidities presented to the ENT outpatient department with the complaint of Right cheek swelling for 20 years and cosmetic disfigurement of the right cheek for three years. (Figure 1) Upon evaluation Swelling on the right side of the face was observed and it was not associated with any other symptoms.

Figure 1

on examination; a soft mucosa covered swelling was found on the lateral aspect of the upper gingiva. The examination was otherwise unremarkable. All laboratory investigations were within limits. In contrast, the CT reveals a heterogeneous enhancing soft tissue lesion measuring 2x2x2 cm located in the subcutaneous tissue of the right cheek (Figure 2) The patient was prepared for surgery following informed consent and a detailed

explanation of the procedure. After implementing aseptic precautions, positioning was completed, and draping was performed on the patient. Following local anesthesia, an intraoral incision was made to prevent facial scarring and disfigurement. Hemostasis was achieved with the assistance of diathermy; the entire cyst was subsequently analyzed through histopathology and wound was closed with absorbable suture The definitive cytological evidence was characterized by a palisading arrangement, the presence of spindle cells, atypical features, and mitotic activity. The immunohistochemical marker S-100 is positive.

Figure 2



DISCUSSION

Schwannomas are benign soft tissue tumors that originate from the perineurium. The mean age at presentation is 40 years, characterized by obvious, circumscribed, slow-growing masses that displace surrounding structures in the The head and neck. Vestibulocochlear region, pharyngeal region, and parapharyngeal space are all affected. Other areas include trachea, paranasal sinuses and orbit. Differential diagnoses of cystic lesions include cystic leiomyomas, lipoleiomyomas, lipomas, rhabdomyosarcomas, and sarcomas (1) Schwannomas present as low density or low intensity on T1-weighted images and high intensity on T2-weighted, non-enhanced post-contrast images (2,3). Unfortunately, these tumors are neither specific to tumor markers nor can they be differentiated as benign. Diagnostic methods include malignant tumor assessment, clinical examination, CT scan, MRI, and fine needle aspiration (FNA) Complete surgical excision is the treatment. They rarely affect the mouth, particularly the buccal mucosa. Oral schwannomas typically arise from small nerves, which makes identifying the affected nerves challenging. For facial tumors, the intraoral (endo-buccal) approach is often preferred, as it minimizes the risk of facial nerve damage and avoids visible scars. Curative treatment involves the complete surgical removal of the tumor, which is almost always achievable. The surgical approach depends on the tumor's location. the differential diagnosis of schwannomas included some lesions such as lipomas, hemangiomas, eosnophilic granuloma, epidermoid and dermoid cysts, epithelial hyperplasia, granular cell tumor, leyomioma, and lymphangioma. (4)

CONCLUSION

Schwanommas presenting as a cheek cyst are exceedingly rare. This case emphasizes the importance of keeping schwannomas in the differential diagnosis of cheeck or buccal mucosa cyst and complete surgical excision is the key to success and prevention of recurrence.

Patient consent: Verbal and written consent was taken from patient.

Authors contribution

SYH: Manuscript writing
SA: Concept, design and analysis
QA: Interpretation of data an analyis
S: Analysis and literature review
All authors approve the final version of the manuscript to be published.

REFERENCES

1. Hania, M., & Mannion, C. (2017). Sporting injuries - an unusual case of a traumatic Schwannoma presenting on the upper lip of a professional footballer, a case report. Journal of Medical Cases, 8(8), 243–245. https://doi.org/10.14740/jmc.v8i8.2761
2. Durbin, A., Newcomer, J. B., & Wilson, C. L. (2022). Pathergy of a Medial Heel Schwannoma. Cureus, 14(9), e29463. https://doi.org/10.7759/cureus.29463
3. Shakudo, M., Inoue, Y., Ohata, K., & Tanaka, S. (2001). Neurenteric cyst with alteration of signal intensity on follow-up MR images. AJNR. American journal of neuroradiology, 22(3), 496–498.
4. Sathyanarayanan, R., Kumaravelu, R., & Jude, N. J. (2020). An uncommon and rare soft tissue tumor of the cheek (Schwannoma): a case report. *Journal of Scientific Dentistry*, *10*(2), 38–40. https://doi.org/10.5005/jp-journals-10083-0936
5. Khbou A, Meherzi S, Mnif O, Beldi O, Charfi A. Benign Solitary Schwannoma of the Cheek: A Case Report and a Review of the Literature. Ear, Nose & Throat Journal. 2024;0(0). https://doi.org/10.1177/01455613241290178
6. He, Y., Fu, H. H., He, J., Zhu, H. G., & Zhang, Z. Y. (2010). Schwannoma arising from intramasseteric region. Journal of Craniofacial Surgery, 21(6), 1998–2001. https://doi.org/10.1097/scs.0b013e3181f504dd