

**Serdar ALTUN<sup>1</sup>**  
**Aysun YILDIZ ALTUN<sup>2</sup>**<sup>1</sup>Harpur Devlet Hastanesi,  
Plastik, Rekonstruktif ve  
Estetik Cerrahi Kliniği,  
Elazığ, TÜRKİYE<sup>2</sup>Elazığ Eğitim ve Araştırma  
Hastanesi,  
Anesteziyoloji ve Reanimasyon  
Kliniği,  
Elazığ, TÜRKİYE**Geliş Tarihi : 09.04.2013**  
**Kabul Tarihi : 01.08.2013****Yazışma Adresi**  
**Correspondence****Serdar ALTUN**  
Harpur Devlet Hastanesi,  
Plastik, Rekonstruktif ve  
Estetik Cerrahi Kliniği,  
Elazığ-TÜRKİYE**serdaralt@gmail.com****Schwannoma of the Lower Lip, A Rare Entity: Case Report**

Schwannomas, also known as neurilemmomas, are solitary benign tumors arising from nerve sheath schwann cells. Tongue is involved most frequently and they rarely occur in the lip area. Histopathological examination is the chief method of diagnosis and complete excision is the treatment of choice. Our report documents an unusual case of a schwannoma located in the lower lip of a 21 year old male patient emphasizing that schwannoma should be taken into consideration in differential diagnosis of any lower lip mass.

**Key Words:** Schwannoma, lower lip.**Alt Dudakta Nadir Bir Kitle Nedeni; Schwannoma: Olgu Sunumu**

Schwannoma diğer bir tabirle neurilemmomalar, sinir kılıfındaki schwann hücrelerinden köken alan benign tümörlerdir. Periferik, santral ve otonomik sinirlerden köken alabilen schwannomaların yaklaşık %25-45'i baş-boyun bölgesinde görülmekte olup en sık kafatabanı lokalizasyonunda akustik sinirden kaynaklanmaktadır. Oral kavitede nadir olarak görülen bu tümörün en sık lokalizasyonu dildir. Dudak tutulumu ise literatürde çok az sayıda rapor edilmiştir. Bu olguda, alt dudak kitlelerinde ayırıcı tanıda dikkat edilmesi gereken ve 21 yaşındaki bir erkekte olağan dışı bir tutulum gösteren alt dudak schwannomunu sunuldu.

**Anahtar Kelimeler:** Schwannoma, alt dudakta kitle.**Introduction**

Schwannomas are solitary, benign, slow growing, smooth surfaced, usually encapsulated tumors arising from the neural sheath schwann cells of the peripheral, cranial or autonomic nerves. Approximately 25 %-45 % occur in head and neck region most commonly in association with the acoustic nerve within the skull and rarely originate from the oral cavity (1- 3). Schwannomas of the oral cavity most commonly occur in the tongue followed by palate, floor of the mouth, gingiva, lip and the buccal mucosa (4, 5). Lower lip is an extremely rare location with only a few similar cases reported in the literature (2, 6). In this paper, we report an unusual case of schwannoma of the lower lip of a 21 year old male patient besides the clinicopathological and immunohistochemical characteristics of the lesion are discussed.

**Case Report**

A 21 year old male patient presented with a painless swelling of the lower lip. He had been aware of this lesion for five months and during this period it enlarged progressively. The patient was neither a smoker nor an alcoholic and past medical history was unremarkable. Physical examination revealed an oval, firm, non-tender mass with a smooth surface located in the vermillion area of the lower lip. Results of all laboratory tests were within normal limits. The mass was completely excised under local anesthesia.

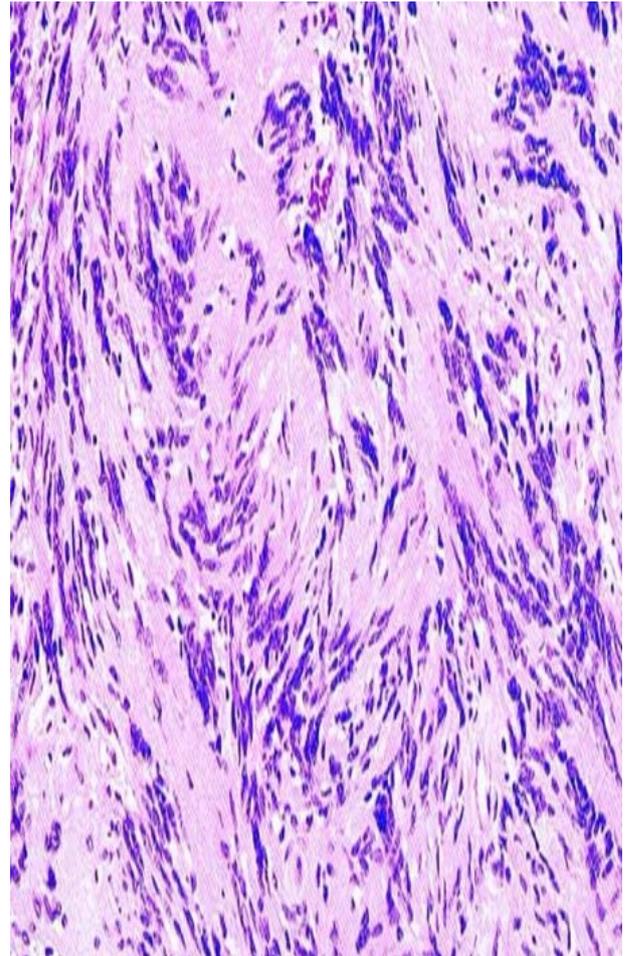
Grossly the lesion was an encapsulated tumor mass measuring 1.8 x 1.1 cm with a firm and grayish surface (figure 1-2). Histopathologically it was an encapsulated nodule consisted of peripheral hypercellular (Antoni A) and central hypocellular (Antoni B) regions (figure 3). In Antoni A area, typical verocay bodies which were composed of palisading nuclei and surrounding spaces filled with eosinophilic filaments were detected. There were no atypical mitotic figures or necrosis. In Antoni B region, there was closely textured matrix with areas of edema, myxomatous changes, cystic degeneration and dilated vessels. Immunohistochemical staining by the strepta-vidin-biotin-peroxidase method demonstrated S-100 protein positivity in the tumor cells. On the basis of histopathologic findings and immunohistochemical profiles, a diagnosis of schwannoma was rendered.



**Figure 1.** 1,8 x 1,1 cm mass located at the inferior border of the lower lip.



**Figure 2.** Intraoperative view of the grayish white mass with well defined capsule.



**Figure 3.** Histological findings of schwannoma. Hypercellular Antoni A area with fascicular arrangements of cells with fibrillar cytoplasm.

### Discussion

Schwannomas are benign, solitary, encapsulated neoplasms also known as neurilemmomas. They are uncommon tumors that arise mostly from peripheral nerves in relatively deep parts of the soft tissues such as the posterior spinal root and the acoustic nerve; extremities, trunk and neck being the most common locations (6, 7). Because of lacking schwann cells, schwannomas do not arise from cranial nerves I and II (8). They arise from both peripheral and intracranial parts of cranial nerves in head and neck region. The acoustic nerve is the most common intracranial site whereas peripheral cranial nerve schwannomas are usually located in parapharyngeal space of the neck and in soft tissues such as tongue, buccal mucosa, palate and gingiva (9, 11). In parapharyngeal space, the most commonly involved nerves are the vagus and the cervical sympathetic chain (12).

Schwannomas are characterized by solitary occurrence, slow growth, and smooth surface (6). Clinical symptoms are variable and most schwannomas

are typically asymptomatic depending on the nerve of the origin. If the original tumor is small it may not be easily identified; however if the original tumor is large it grows inside the epineural sheath and undergoes progressive enlargement, with the nerve fascicles spreading out of the surface of the tumor (11). In most of the cases, the only complaint is a painless mass. Schwannoma of the lip is a rare clinical entity and it was first reported by Das Gupta et al in 1969 (13). Since 1965 a few number of schwannoma cases of the lip have been reported (4, 14, 15). Our report is on an extremely rare case which is a schwannoma of the lower lip.

Histologically, the characteristic features for the schwannoma of the lip are similar to those described for analogues found at other sites. In the same tumor, two characteristic patterns are described as Antoni A and Antoni B areas. The relative proportions of two regions may vary. Hypercellular Antoni A areas consist of monomorphic spindle shaped schwann cells with pointed basophilic nuclei and poorly defined eosinophilic cytoplasm (2, 6, 14). Antoni B areas consist of loosely arranged cells and small cystic spaces. In Antoni B area, cystic degeneration, vessels with thick hyaline walls and hemorrhage may be observed (11, 14). Immunohistochemically, positive S-100 protein and lev-7 antigen reactivity warrants schwann cell nature of these tumors (1, 4). Vimentin and glial fibrillary acid protein staining can also be helpful (16). For schwannomas of the lip, ultrasound, computed tomography and magnetic resonance imaging can be used for preoperative diagnosis. Homogeneous, hypo echoic features and

posterior acoustic enhancement are seen on ultrasound (5). Computerized tomography shows homogeneous soft tissue density mass with clear margins (4). and magnetic resonance imaging shows a homogenous lesion with low intermediate signal intensity on T1-weighted images and high signal intensity on T2-weighted images (6).

Schwannoma may occur at all ages peak incidence being in the second and third decades of life (10). The male to female ratio in schwannoma is 2/3 (11). In our case, schwannoma of the lower lip may have arisen from an end branch of the mental branch of cranial nerve VII. Radiological examination was not performed considering the relatively small size of the lesion. For schwannomas, conservative surgical removal is the choice of treatment, wide excision is not recommended since the prognosis is good and recurrence is rare (8, 14, 15). Malign transformation of schwannoma of the lip has been controversial but a few isolated cases have been reported in literature (8, 14, 17).

Schwannomas are rare tumors with nonspecific presentation so clinical diagnosis is difficult. Differential diagnosis of such a lip mass must include fibroma, pleomorphic adenoma and other salivary gland tumors (16). Diagnosis is confirmed with histopathological examination. In present case our initial diagnosis was salivary gland tumor, however it turned out to be schwannoma on pathological examination. Schwannoma should be taken into consideration in the differential diagnosis of a lower lip mass even though it is a rare clinical entity.

## References

- Thurnher D, Quint C, Pammer J, et al. Dysphagia due to a large schwannoma of the oropharynx: case report and review of the literature. *Arch Otolaryngol Head Neck Surg* 2002; 128:850-852.
- Cherrick HM, Eversole LR. Benign neural sheath neoplasm of the oral cavity. Report of thirty-seven cases. *Oral Surg Oral Med Oral Pathol* 1971; 32: 900-909.
- Wright BA, Jackson D. Neural tumors of the oral cavity. *Oral Surg Oral Med Oral Pathol* 1980; 49: 509-522.
- Asaumi J, Konouchi H, Kishi K. Schwannoma of the upper lip: ultrasound, CT, and MRI findings. *J Oral Maxillofac Surg* 2000; 58: 1173-1175.
- Pahwa R, Khurana N, Uma CK, et al. Neurilemmoma of tongue. *Ind J Oral Surg* 1968; 26: 651-658.
- Yang SW, Lin CY. Schwannoma of the upper lip: case report and literature review. *American J Otolaryngology* 2003; 24: 351-354.
- Kara CO, Topuz B. Horner's syndrome after excision of cervical sympathetic chain schwannoma. *Otolaryngo Head Neck Surg* 2002; 127:127-128.
- Michida A, Ryoike K, Ishikura S, et al. Multiple schwannomas of the neck, mediastinum, and parapharyngeal space: Report of case. *J Oral Maxillofac Surg* 1995; 53: 617-620.
- Triaridis C, Tsalighopoulos MG, Kouloulas A, et al. Posterior Pharyngeal Wall schwannoma. *J Laryngo Otol* 1987; 101: 749-752.
- De Bree R, Westerveld GJ, Smeele LE. Submandibular approach for excision of a large schwannoma in the base of the tongue. *Eur Arch Otorhinolaryngol* 2000; 257: 283-286.
- Putney FJ, Moran JJ, Thomas GK. Neurogenic tumors of the head and neck. *Laryngoscope* 1964; 74: 1037-1059.
- Rosner M, Fiher W, Mulligan L. Cervical sympathetic schwannoma: case report. *Neurosurgery* 2001; 49: 1452-1454.
- Das Gupta TK, Brasfield RD, Strong EW, et al. Benign solitary schwannomas (neurilemmomas). *Cancer* 1969; 24: 355-366.
- Barbosa J, Hansen LS. Solitary multilobular schwannoma of the oral cavity. *J Oral Med* 1984; 39: 232-235.
- Pons J, Sabrie A, Koulmann M, et al. Schwannoma of the upper lip. *Rev Stomatol Chir Maxillofac* 1970; 71: 371-376.
- Lopez JI, Ballestin C. Intraoral Schwannoma. A clinicopathologic and immunohistochemical study of nine cases. *Arch Anat Cytol Pathol* 1993; 41: 18-23.
- Shibita Y, Ueda T, Seki H, et al. Gastrointestinal Stromal tumour of the rectum. *Eur J Gastroenterol Hepatol* 2001; 13: 283-286.