



Intramuscular lipoma of the tongue

Dilde intramusküler lipom

Sedat Aydın¹, Mehmet Gökhan Demir², Dilek Yavuzer³

¹Department of Otolaryngology, Dr. Lütfi Kırdar Kartal Training and Research Hospital, İstanbul, Turkey

²Department of Otolaryngology, Prof. Dr. Celal Ertuğ Etimesgut State Hospital, Ankara, Turkey

³Department of Pathology, Dr. Lütfi Kırdar Kartal Training and Research Hospital, İstanbul, Turkey

ABSTRACT

Lipomas are the most common mesenchymal tumors of the human body, however it seen in oral cavity rarely. In the oral cavity, buccal mucosa is mostly affected and the tongue follows this. Various subtypes of the lipomas can be seen in tongue but intramuscular form is rarely detected. The tumor can be mixed with malign tumors. The cases are mostly asymptomatic but rarely have gustatory and speech problems. Because of the nature of the intramuscular lipom, it does not possess a real capsule. Main treatment modality is the surgical excision of the tumor with clear margins. In this article, we report a 60-year-old female patient who has intramuscular lipoma of the tongue that is treated with surgical excision.

Keywords: Intramuscular lipoma; lipoma; tongue; tumor.

ÖZ

Lipomlar insan vücudunun en yaygın mezenkimal tümörleridir, ancak ağız boşluğunda nadiren görülür. Ağız boşluğunda, çoğunlukla bukkal mukozaya etkilenir ve bunu dil izler. Dilde lipomların çeşitli alt tipleri görülebilir, ancak intramusküler yapı nadiren saptanmıştır. Tümör malign tümörlerle karıştırılabilir. Olgular çoğunlukla asemptomatiktir ancak nadiren tatma ve konuşma sorunları ortaya çıkar. İntramusküler lipom yapısı nedeniyle gerçek bir kapsüle sahip değildir. Temel tedavi şekli, tümörlerin açık eksizyonudur. Bu makalede, dildeki intramusküler lipomu cerrahi eksizyonla tedavi edilen 60 yaşında bir kadın hasta sunuldu.

Anahtar sözcükler: İntramusküler lipom; lipom; dil; tümör.

CASE REPORT

Lipomas are the most common benign mesenchymal neoplasms of the human body and only 15-20% of the lesion are seen on the head and neck region.^[1] Oral cavity includes only 3-4% of the all lipomas on the body. Most of the cases of the oral cavity are seen in buccal mucosa and rarely detected on the tongue.^[2,3] Intramuscular lipomas are tumors infiltrating the muscle tissue of the tongue with benign neoplastic features. Lipomas generally are asymptomatic except their bulky masses. The treatment modality is based on surgical excision with clear margins. Recurrence rates are changing between 3-62%. Here we represent a case of intramuscular lipoma of the tongue surgically treated successfully.

A 60-year-old female patient was admitted to the Otolaryngology outpatient clinic with a complaint of swelling on the right side of her tongue. The lesion was first recognized and progressively increased in size over the last 10 months. On physical examination, a right-sided, soft, painless, 2×3 cm tongue mass was detected (Figure 1). Magnetic resonance imaging confirmed a right-sided, well circumscribed, 2×3 cm mass lesion. Informed consent was obtained from the patient and the lesion was excised under general anesthesia (Figure 2a, b). On histopathologic examination, mature fat cells with lobular arrangement between striated muscle fibers

Received: April 12, 2016 Accepted: October 14, 2016

Correspondence: Sedat Aydın, MD. İstasyon Caddesi, Merdivenli Sokak, Özkan Apt., No: 5, D: 6, 34860 Kartal, İstanbul, Turkey.
Tel: +90 216 - 441 39 00 e-mail: sedataydin63@yahoo.com

© 2017 Official Journal of ENT-HNS Society of Istanbul



Figure 1. Preoperative mass on the right side of the tongue with normal overlying mucosa.

could be seen with no evidence of malignancy; these findings were consistent with intramuscular lipoma (Figure 3a, b). After one-year follow-up, there is no tumor recurrence or complaint.

DISCUSSION

Lipomas are commonly seen in the human body but rarely detected in the oral cavity. Only 3-4% of the cases are seen here, and the most common site is the buccal mucosa followed by the tongue.^[3] The classification of lipomas are mainly angioliipoma, intramuscular lipoma, benign

lipoblastoma, spindle cell lipoma, and pleomorphic lipoma, with 80% of the cases being ordinary lipomas.^[1] The intramuscular form is well defined and different from the ordinary form due to absence of a tumor capsule. The tumor is prone to infiltrating the tongue muscle without malignant features.

Most of the cases are detected in the adult age group and there is no sex prediction. The patients are generally asymptomatic but rarely have some speech and gustatory problems as well as pain. Physical examination shows the well circumscribed soft mass with normal oral cavity mucosa. The size of lipomas in the literature can range between 1-10 cm. In our case the lesion was 3×2 cm in diameter and under normal tongue mucosa, soft and well circumscribed on palpation. The patient had no complaint except right-sided mass.

Differential diagnosis should include spindle cell lipoma, myxoma, myxosarcoma, benign fat tumors, fibrolipoma, angioliipoma, schwannoma, cysts, lingual thyroid, adenomas of the minor salivary glands, granular cell myoblastomas, angiomas and myopericytomas.^[4-7]

Mature fat cells infiltrating the muscle fibers are present on pathologic examination. Muscle fibers also show different degrees of atrophy, without cellular atypia, mitotic activity, multinucleated cells, inflammation or necrosis.^[2] In our case these typical features of intramuscular lipoma were detected and pathologic stainings defined the intramuscular lipoma of the tongue.

Preoperative surgical imaging methods help in the differentiation of invasion and also in establishing the dimension of the tumor and relation with normal muscle tissue. Magnetic resonance imaging shows better soft tissue images and may be useful in surgical planning.

The main treatment modality is surgical excision of the tumor with clear margins. Because of the

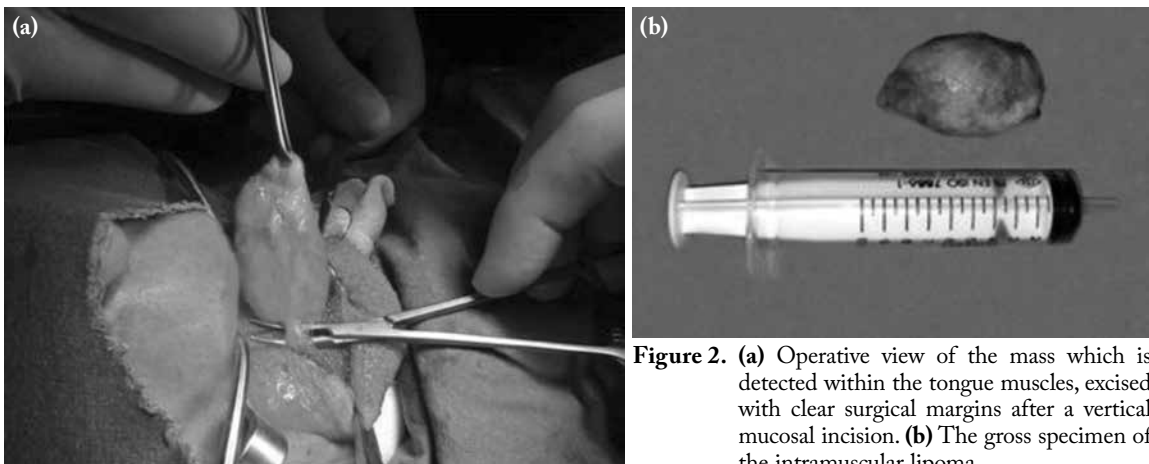


Figure 2. (a) Operative view of the mass which is detected within the tongue muscles, excised with clear surgical margins after a vertical mucosal incision. (b) The gross specimen of the intramuscular lipoma.

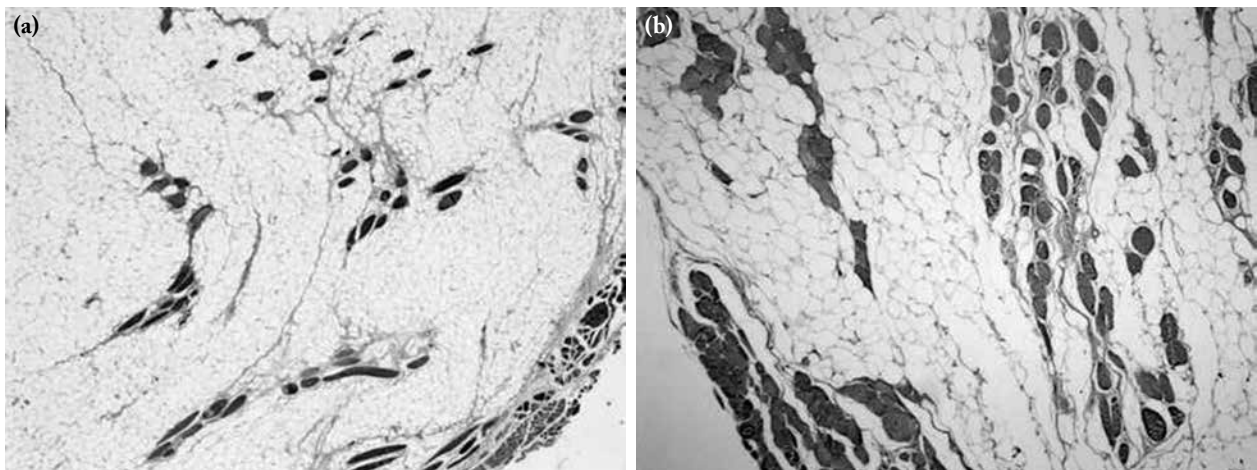


Figure 3. (a) Histopathologic section showing expansive growth pattern, composed of mature fat cells (H-E×40). (b) Mature fat cells with lobular arrangement between striated muscle fibers can be seen (H-E×100).

characteristic features of intramuscular lipomas, the lesion should be excised with at least 1 cm clear margins. The capsule free tumor can be prone to recurrence. The rate of the recurrence ranges between 3-62.5% in different studies.^[4,8] So this patient must be followed closely to exclude recurrences. Our patient has been symptom free for one year and there is no recurrence detected.

In conclusion intramuscular lipomas are rarely found in the head and neck, especially in the tongue. Most cases are diagnosed by pathologic investigation of the lesion. Patients with tongue lipomas are clinically asymptomatic. The mainstay of treatment is the surgical excision. We emphasize that a lesion in the tongue under normal mucosa can be an intramuscular lipoma of the tongue.

Declaration of conflicting interests

The authors declared no conflicts of interest with respect to the authorship and/or publication of this article.

Funding

The authors received no financial support for the research and/or authorship of this article.

REFERENCES

1. Fletcher CDM, Unni KK, Mertens F. Adipocytic tumors. In: Pathology and Genetics: Tumours of Soft Tissue and Bone. Lyon: World Health Organization classification of tumours; IARC Press; 2002. p. 9-46.
2. Fregnani ER, Pires FR, Falzoni R, Lopes MA, Vargas PA. Lipomas of the oral cavity: clinical findings, histological classification and proliferative activity of 46 cases. *Int J Oral Maxillofac Surg* 2003;32:49-53.
3. Furlong MA, Fanburg-Smith JC, Childers EL. Lipoma of the oral and maxillofacial region: Site and subclassification of 125 cases. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2004;98:441-50.
4. Takeda Y. Intramuscular lipoma of the tongue: report of a rare case. *Ann Dent* 1989;48:22-4.
5. Shirasuna K, Saka M, Watatani K, Kogo M, Matsuya T. Infiltrating lipoma of the tongue. *Int J Oral Maxillofac Surg* 1989;18:68-9.
6. Kacker A, Taskin M. Atypical intramuscular lipoma of the tongue. *J Laryngol Otol* 1996;110:189-91.
7. Akbulut S, Berk D, Demir MG, Kayahan S. Myopericytoma of the tongue: a case report. *Acta Medica (Hradec Kralove)* 2013;56:124-5.
8. Garavaglia J, Gnepp DR. Intramuscular (infiltrating) lipoma of the tongue. *Oral Surg Oral Med Oral Pathol* 1987;63:348-50.