

Intermuscular lipoma of the submandibular space

Patrícia Adachi, Shajadi P Kaba¹, Ana Maria P Soubhia², Elio H Shinohara³

Department of Morphology,
Stomatology and Physiology,
Faculdade de Odontologia
de Ribeirão Preto - USP,
¹Department of Oral and
Maxillofacial Surgery, Hospital
de Vila Penteado, SUS-SP, Brazil,
²Department of Oral Pathology,
Araçatuba Dental School -
UNESP, ³Post Graduate Program,
Oral and Maxillofacial Surgery
Branch, Araçatuba Dental School
- UNESP, Brazil

Received : 22-03-10
Review completed : 22-10-10
Accepted : 08-05-11

ABSTRACT

Deep lipomas, especially in the head and neck region, are uncommon. This report describes the case of a patient with a large intermuscular lipoma of the submandibular space, which had been present for 10 years and was diagnosed by computed tomography. The clinical, imaging, and histopathological features, as well as the management of the tumor, are described.

Key words: Computed tomography, intermuscular lipoma, submandibular space

Lipomas of the head and neck are relatively uncommon, and there have been only a few reports of lipomas of the submandibular space.^[1] Although lipomas are generally diagnosed by clinical examination, imaging studies can aid in establishing the diagnosis in special situations.^[2] This report describes a massive lipoma of the submandibular space, which was diagnosed by computed tomography (CT).

CASE REPORT

A 56-year-old man presented with a swelling of the right lower face. The swelling had been present for 10 years, without recent growth. Clinical examination revealed a soft, painless mass (10 × 5 cm) in the submandibular region [Figure 1].

A CT scan showed a well-circumscribed, bilobed mass measuring 14 cm in its largest diameter [Figure 2]. The mass

was under the platysma muscle and had signal intensity characteristic of fat (–135 Hounsfield units).

Fine-needle aspiration was negative for malignancy. After having given written informed consent, the patient underwent surgical exploration under general anesthesia. Dissection of the platysma revealed a well-circumscribed mass that was easily separated from the surrounding tissues [Figure 3].

Histologically, the lesion consisted of mature adipocytes in a connective tissue stroma, surrounded by a thin fibrous capsule. No cellular atypia, mitotic activity, multinucleated cells, or lipoblasts was seen [Figure 4]. The lesion was diagnosed as intermuscular lipoma. The immediate postoperative period was uneventful, and no recurrence was observed during the five-year follow-up period.

DISCUSSION

Lipomas are classified into various subtypes, depending on the clinical and microscopic features of the tumor. Deep-seated lipomas that arise within skeletal muscle fibers are designated intramuscular lipomas, whereas those that arise between skeletal muscle fibers are designated intermuscular lipomas.^[3] Intramuscular lipomas account for 0 to 5.0% of all benign adipocytic tumors, whereas intermuscular lipomas account for 0.3 to 1.9%.^[3] The clinical and histological features of the intermuscular lipoma described here were similar to those reported in the literature, which include greater frequency among males, greater frequency among

Address for correspondence:

Dr. Patrícia Adachi
E-mail: paricardo@usp.br

Access this article online

Quick Response Code:



Website:
www.ijdr.in

DOI:
10.4103/0970-9290.94691



Figure 1: Clinical aspect of the lipoma in the submandibular region



Figure 2: CT demonstrating a well-circumscribed, bilobed mass with high signal intensity

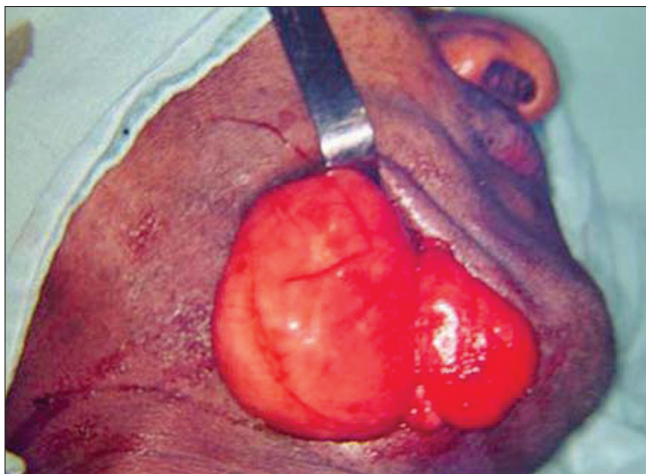


Figure 3: Intraoperative view of the bilobed lesion easily separated from the surrounding tissues

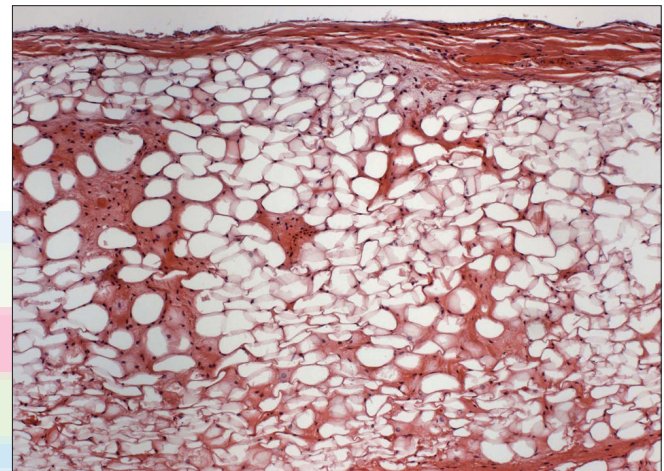


Figure 4: Photomicrograph showing mature adipocytes surrounded by a fibrous capsule (hematoxylin and eosin stain, original magnification $\times 100$)

patients aged 40 to 60 years, lobulated appearance, easy separation from the surrounding muscle tissue, presence of a fibrous capsule, and absence of muscle fibers in the mass.^[4]

Regarding the diagnostic tools, sometimes clinical examination alone is not sufficient to identify the nature and exact location of the mass, particularly in cases of deep-seated tumor; in such situations, imaging tests can be useful.^[5]

Ultrasound,^[5] CT, and magnetic resonance imaging^[4-6] can differentiate lipomas from other soft tissue tumors. These imaging methods can also contribute to the staging of the tumor (extent and structures involved). The soft tissue characterization provided by CT or magnetic resonance imaging is superior to that provided by ultrasound.^[5] In the case reported here, CT was quite useful for the diagnosis of lipoma, which has signal intensity similar to that of subcutaneous fat (-50 to -150 Hounsfield units). The prognosis of intermuscular lipomas is good, and the risk of recurrence is low.^[3,4]

REFERENCES

1. 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.
2. de Freitas MA, Freitas VS, de Lima AA, Pereira FB Jr, dos Santos JN. Intraoral lipomas: A study of 26 cases in a Brazilian population. *Quintessence Int* 2009;40:79-85.
3. Fletcher CD, Martin-Bates E. Intramuscular and intermuscular lipoma: Neglected diagnoses. *Histopathology* 1988;12:275-87.
4. Nishida J, Morita T, Ogoe A, Okada K, Kakizaki H, Tajino T, *et al.* Imaging characteristics of deep-seated lipomatous tumors: Intramuscular lipoma, intermuscular lipoma, and lipoma-like liposarcoma. *J Orthop Sci* 2007;12:533-41.
5. Zhong LP, Zhao SF, Chen GF, Ping FY. Ultrasonographic appearance of lipoma in the oral and maxillofacial region. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2004;98:738-40.
6. Salvatore C, Antonio B, Del Vecchio W, Lanza A, Tartaro G, Giuseppe C. Giant infiltrating lipoma of the face: CT and MR imaging findings. *AJNR Am J Neuroradiol* 2003;24:283-6.

How to cite this article: Adachi P, Kaba SP, Soubhia AP, Shinohara EH. Intermuscular lipoma of the submandibular space. *Indian J Dent Res* 2011;22:871-2.

Source of Support: Nil, **Conflict of Interest:** None declared.