

Intramuscular lipoma in the temporal region: a case report

Lipoma intramuscular em região temporal: relato de caso clínico

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ABSTRACT

Few reports of intramuscular lipoma in the temporal region are seen in the literature. Because of its invasive characteristics, this neoplasm may be mistaken as a liposarcoma. Although image exams help in the differential diagnosis between benign and malignant lipomatous lesions, the histopathological exam is the only one capable of a definitive diagnosis. Total removal of the lesion is essential because the recurrence rate without complete excision may be as high as 62.5%. A patient with an intramuscular lipoma located in the temporal region is presented along with the mentioned treatment. Great importance should be given to these uncommon lesions that may present as a challenge to professionals that work in the maxillofacial region.

Indexing terms: Lipoma. Muscle neoplasms. Temporal muscle.

RESUMO

Poucos relatos de lipoma intramuscular na região temporal são vistos na literatura. Devido as suas características invasivas, essa neoplasia pode ser confundida com um lipossarcoma. Apesar de exames de imagem ajudarem no diagnóstico diferencial entre lesões lipomatosas benignas ou malignas, o exame histopatológico é o único capaz de diagnóstico definitivo. Remoção total da lesão é essencial pois a taxa de recidiva sem completa excisão pode ser de até 62,5%. Uma paciente com um lipoma intramuscular localizado na região temporal é apresentada com o devido tratamento da lesão. Grande importância deve ser dada a essas lesões incomuns que podem se apresentar como um desafio aos profissionais que atuam na região maxilofacial.

Termos de indexação: Lipoma; Neoplasias musculares. Músculo temporal.

INTRODUCTION

The intramuscular lipoma is a benign neoplasm of slow growth, composed by mature adipose cells permeated in a skeletal musculature, with invasive characteristics. Importance is given to the differential diagnosis of this neoplasm with liposarcoma because the similar clinical appearance of both diseases.

This tumor is rare in the maxillofacial region and associated with local recurrences. We report an intramuscular lipoma in the temporal muscle treated surgically, with no signs of recurrence after one decade of follow-up.

CASE REPORT

A white 42-years-old woman, referred swelling of slow growth in the left temporal region noticed nine months before. The patient related headache in

the temporal region that extended to the frontal and parietal areas. The physical exam showed tumefaction of 7 cm at the left temporal region, painless to palpation, semi-firm consistency, and added to deeper layers (Figure 1). She also showed a slight functional limitation for mouth opening.



Figure 1. Lateral view showing a 7 cm tumefaction at the left temporal region and scar of the incisional biopsy.

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Computed tomography (CT) scans showed an image with the attenuation suggestive of fat, with well-defined margins, with muscular invasion (Figure 2). An incisional biopsy was executed to diagnose, through little supra-auricular incision on the left scalp. The histopathological result came as intramuscular lipoma.



Figure 2. Axial slice of the CT scan showed image dense as fat located at the left temporal region, with muscular compromising (arrows).

The exeresis was done few days after, under general anesthesia. A hemi-coronal approach was made on the left side followed by dissection of the subcutaneous layer and identification the lesion's capsule (Figure 3). During the dissection, adhesion to the temporal muscle was observed. At the adhered region, muscle tissue was annexed to the exeresis.

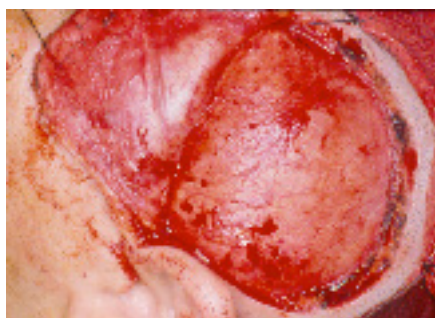


Figure 3. Hemicoronal access showing the lesion superficially to the muscular plane.

The macroscopic aspect showed a specimen measuring 7,0 x 6,5 x 2,4 cm, presenting yellow tissue with lobulated aspect and muscular fibers through it, covered externally at one face by skeletal muscle tissue (Figure 4). Microscopic examination showed neoplastic growth inter and intramuscular, with absence of lipoblasts, nuclear atypia or mitoses figures (Figure 5). The histopathologic exam confirmed the previous diagnosis.

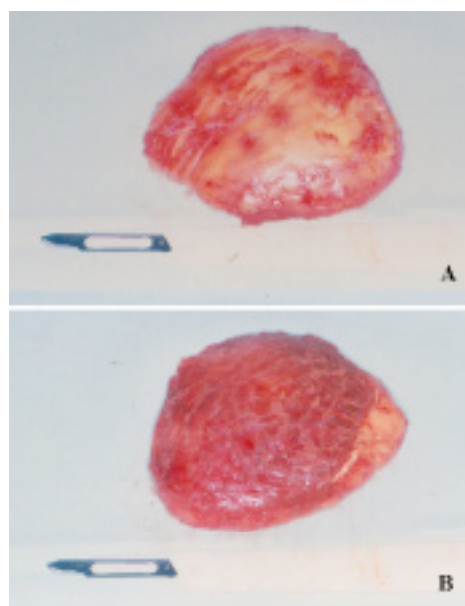


Figure 4. Macroscopic aspect of the lesion demonstrating muscular fibers dispersed in its lateral aspect (A) and skeletal muscular tissue in its medial surface (B).

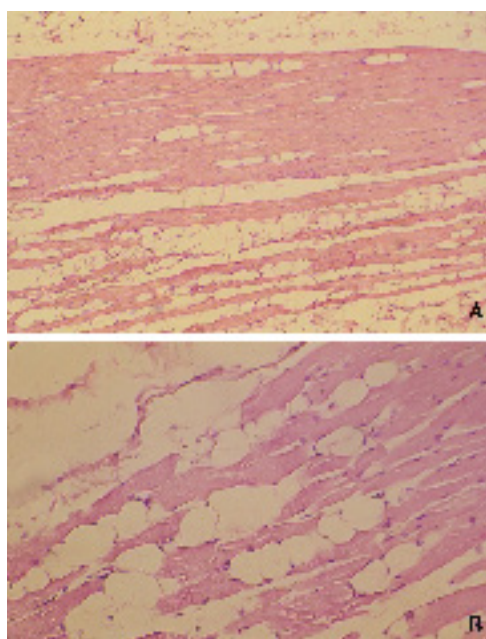


Figure 5. Hematoxylin-eosin stain histological aspect. Note the mature lipocytes of uniform size and small nuclei and the presence of muscular fibers between the cells (10x and 40x magnifications in A and B, respectively).

In 10 years of observation, the patient presented good general health, with no complains or signs of recurrences and functional restrictions.

DISCUSSION

The intramuscular lipoma distinguishes itself from conventional lipomas because of its rarity and clinic-pathological characteristics. This neoplasm is rare at

neck and head region, being reported in the trapezius, sternocleidomastoid, tongue, cheek, floor of mouth and temporal muscle¹⁻⁶. In some cases, it may be associated to a functional limitation of the affected muscle. Symptoms as headache and trismus are observed in cases that affect the temporal region^{4,6}.

The CT scan is useful to define the limits of the intramuscular lipomas and evaluate its invasion in the surrounding tissues, but it is considered deficient for the differentiation with malignant lipomatoses. Magnetic resonance images are more effective than CT on the differentiation of the lipomas and liposarcomas, including the well-differentiated variant⁷. However, the histopathologic exam is essential to conclude the diagnosis³.

Recurrences are related to its invasive nature and the difficulty of its excision. The percentages varied from 3% to 62,5% and these rates might be related to the extension of exeresis¹⁻². Kindblom et al.² showed a series of 33 intramuscular lipomas excised with margin of uninvolved surrounding tissues or myotomy. On their series, only one

case (3%) recurred after 17 years. In our case, the lesion was totally removed, along with the muscular part added to its medial face. The patient has been observed for 10 years and has not shown signs of recurrence.

CONCLUSION

The intramuscular lipoma represents a rare lesion of the temporal region. Due to its great similarity with the liposarcoma, this lipomatose presents a diagnostic challenge for the several professionals that act in the maxillofacial region. As this lesion tends to local recurrence, removal of soft tissues adhered to it seems advisable for successful therapeutical achievement.

Collaborators

All authors provided the conception of the article, acquisition of data, drafting the manuscript and final approval of the submitted version.

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