Dental Research Journal

Case Report

A case of lipoma of lateral anterior neck treated with surgical enucleation

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Received: June 2012
Accepted: October 2012

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ABSTRACT

Lipoma arise in almost 50% of all soft tumours. The neck lipomas are rare tumours that may present as painless masses with slow growth, in the lateral portions of the neck. Some lipomas, such as the one studied in our case, grow deep in the subcutaneous tissue, in close contact with muscles. Here, we report a case of lipoma extending from pre-tragal region up to the ascending branch of the mandible in a 62 year old man, treated with enucleation. The inferior margin of lipoma involved the pharyngeal and the superior margin was achieved by the top of the skull base. The mass of lipoma caused breathing difficulties in the patient, preventing regular sleep. No complication was recorded in the post-operative period and no further surgery was performed. The complete resolution after one year's follow-up, together with the rarity of the anatomical site, makes this case worthy of description. A correct diagnosis facilitated removal of this lesion with a surgical method.

Key Words: Enucleation, lipoma, neck, parotid, pharyngeal

INTRODUCTION

The World Health Organization's Committee for the classification of soft tumours established that benign lipomatous lesions involving soft tissues can be classified into nine big groups, including lipoma, lipomatosis, lipoblastoma, angiolipoma, myolipoma of soft tissues, chondroid lipoma, spindle cell lipoma, and finally hibernoma and pleomorphic lipoma.[1] Lipoma arise in almost 50% of all soft tumours. Even if its etiology is unknown, possible causes may include trauma, infections, and chronic irritation. In a few cases of lipoma, rearrangement of the 12q 13q 6 pchromosomes has been observed.[2] It generally occurs in adult patients between the ages of 40 and 60 years. Although an equal gender distribution has been reported,[3,4] some authors have found a male predominance.[5] Quite often, this kind of fat cell lesions are seen to infiltrate surrounding tissues, perhaps producing long thin extrusion of fatty tissue radiating from the central lesion. So, when located within the striated muscle, these lesions are called "intramuscular lipomas", whereas, if present in excess numbers in small vascular channels, they are called "angiolipomas".[3] Most of the benign lipomas are located in head and neck regions as well as the shoulder and back. They might be single or in clusters and may be located superficially or deep; deeper lipomas are extremely rare and they are usually detected because of their size, which tends to be larger than ordinary subcutaneous lipomas.[6] They can be pedunculated or sessile, and in occasional cases show surface bisection.[7] Localization of tumors determines the type of symptoms, which may comprise dispnea, cough, and if located in the mediastinal areas, even palpitations.[8] Ultrasonography of subcutaneous tumors is useful for acquiring information about the nature, size, and depth of the lesions as well as their relationship to adjacent vessels and other structures. An elongated isoechoic or echogenic mass in the

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subcutaneous tissues should suggest the diagnosis of lipoma. The echo phenomena caused by the tumour are very much like those of subcutaneous fat tissue. The existence of striated echoes in the tumour corresponding to the septa increases the possibility of lipoma.[5] Lipomatous lesions should be completely removed in order to prevent a local recurrence. Most of them presented capsulated, and this facilitates surgery.[9] Here, a case of lipoma treated with enucleation and having a long follow-up is reported and the pertinent literature discussed.

CASE REPORT

A-62-year old man presented to Maxillofacial Surgery, Galeazzi Hospital, Milan, Italy, in January 2011 for evaluation. He complained about the appearance of a lesion in the parotid region since about two years. During the is period, the mass caused him breathing difficulties, preventing regular sleep.

Imaging (CT and MRI) showed a big echogenic mass extending from pre-tragal region up to the ascending branch of the mandible. The inferior margin of the lesion involved the pharyngeal and the superior margin was achieved by the top of the skull base. The imaging was compatible with a diagnosis of lipoma [Figure 1].

An open surgical removal was our choice for the treatment. A pre-tragal access with cervical discharge was performed, with an incision to the angle of the jaw, and after a dissection of the masseter and buccinator muscles with the preservation of the facial nerve, the lesion was reached [Figure 2]. The parotid margin of the lesion presented a capsule but it was lacking in the terminal portion. The surgical specimen was sent to the pathology laboratory for definitive diagnosis. The gross specimen measured $10 \times 2.5 \times 2$ cm and had a soft consistency. It was yellow in colour. The microscopic examination revealed a specimen composed of fragments of mature adipose tissue with foci of chronic inflammation. Based on the microscopic findings and clinical history, a diagnosis of lipoma was made.

No complication was recorded in the post-operative period and no further surgery was performed. The follow up showed no recurrence in the same position and with the same characteristics, after one year. At present, the patient has no breathing difficulties and has regular sleep.

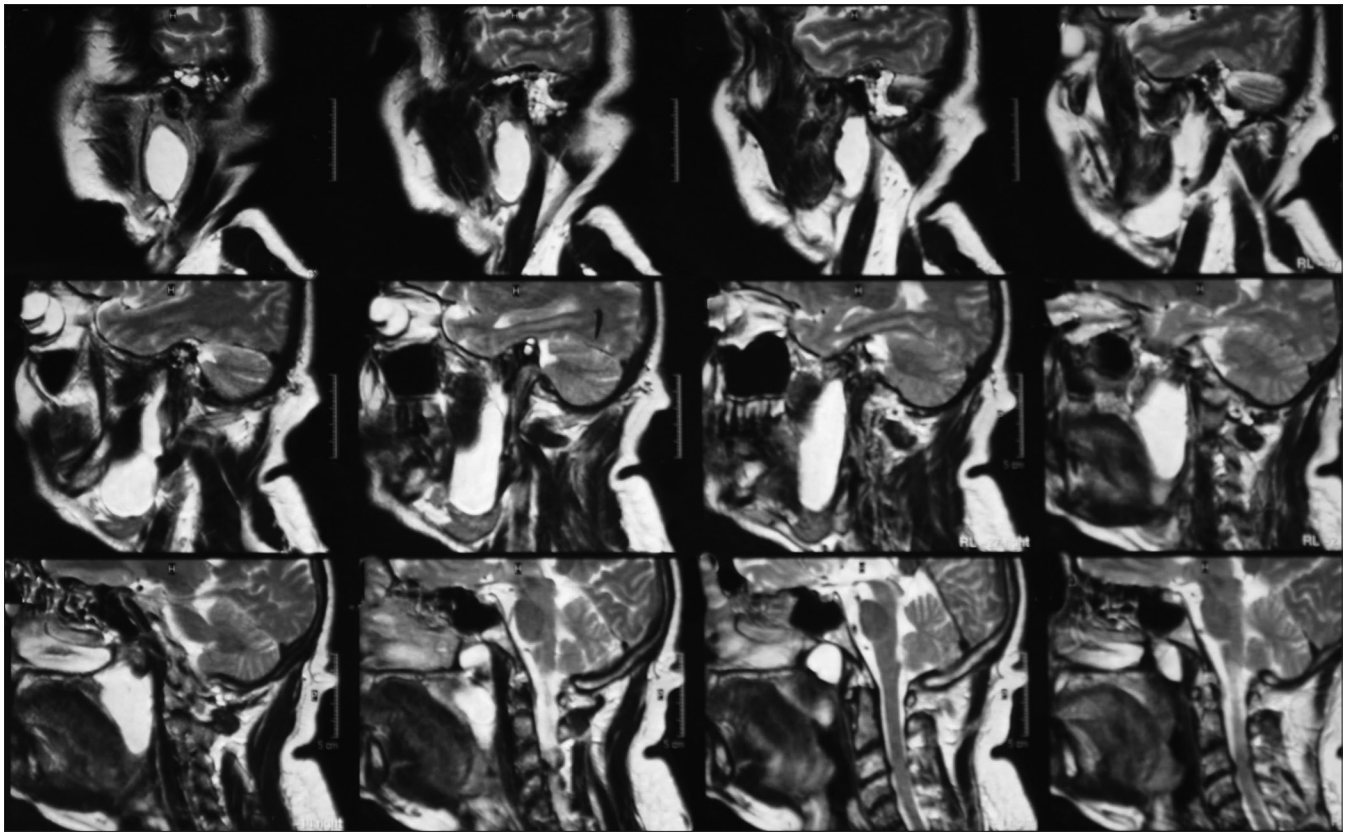

Figure 1: Pre-surgical magnetic resonance imaging

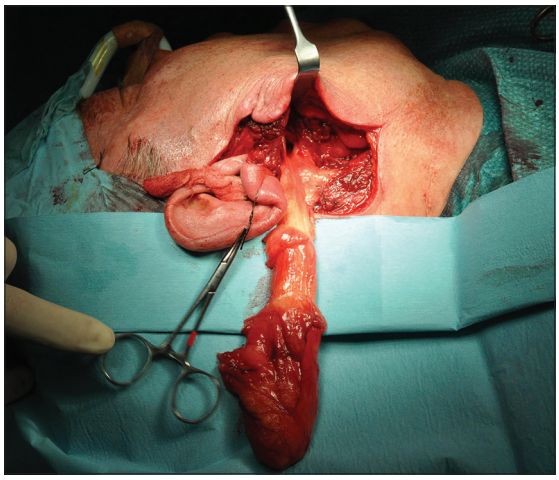

Figure 2: The surgical field showing the lipoma

DISCUSSION

The causes of lipomas are still unknown. They can be sporadic or may be part of a hereditary disease. Theories have been proposed, which include endocrine, metabolic and genetic disorders. In the case reported, the patient had no systemic disease or family history, or any specific event predisposing him to the same.

Malignant transformation in liposarcoma of the lipoma is fairly rare. The presence of an intramuscular lipoma has been described as a risk factor for malignancy.[10] The lesion described did not infiltrate the muscle plane, however, it was closely adherent to the fascia.

The neck lipomas are rare tumours that may present as painless masses with slow growth in the lateral portions of the neck. The differential diagnosis of a painless neck mass includes lymphadenopathy, branchial cleft cysts, tumours of the salivary glands, carotid aneurysm, neurogenic tumors, dermoid cysts, thyroglossal cyst, ectopic thyroid nodules and vascular leiomyomas.[11] An ultrasound can give a clear and fast diagnosis of a lipoma. Typically, a lipoma presents in the ultrasound as a more or less homogeneous hypoechoic lesion that can be ovoid or lobulated.[12] On a CT scan, it appears as a hypodense and homogeneous lesion. However, the magnetic resonance imaging (MRI) remains the best diagnostic technique, as it pinpoints the lipoma in the parotid gland and possible extensions to the deep lobe.[13] The MRI usually shows a strong signal on T1- and T2-weighted MR images, without contrast media enhancement and with a weak signal on fat-suppressed images. The MRI can also clearly define the limits of the lipoma from normal adipose tissue. However, some lipomas, such as the one studied in our case, grow deep in the subcutaneous tissue, in close contact with the muscles. When reporting on these masses, the radiologist should not lead the surgeon to believe that the lesion can be easily removed, because the deep subcutaneous lipomas can join the band.[14]

A question arises regarding the surgical management: Is it necessary to operate all parotid lipomas?[15] In our case, surgery was performed for aesthetic and functional reasons. The average time between the discovery of the lipoma and its dissection was about two years. This average, however, is significantly lower than the mean duration for lipomas at other sites in the head and neck region, as reported in literature. For instance, in a study by Furlong on 125 lipomas, at all sites in the oral and maxillofacial region (including the oral cavity), the mean duration between lipoma discovery and excision was 3.2 years.[5]

CONCLUSION

Here, a case of lipoma of the lateral anterior neck, treated with enucleation is reported with its follow-up. The complete resolution together with the rarity of the anatomical site makes this case worthy of description.

ACKNOWLEDGMENTS

This work was supported by the University of Ferrara (F.C.), Ferrara, Italy and by PRIN 2008 (20089MANHH_004).

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How to cite this article: Grecchi F, Zollino I, Candotto V, Gallo F, Rubino G, Bianchi R, *et al*. A case of lipoma of lateral anterior neck treated with surgical enucleation. Dent Res J 2012;9:S225-8.

Source of Support: This work was supported by the University of Ferrara (F.C.), Ferrara, Italy and by PRIN 2008 (20089MANHH_004).
Conflict of Interest: None declared.