

CASE REPORT

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Giant cervico-parotid lipoma

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Abstract

Background Giant cervico-parotid lipomas are rare entities. This is why we report in this article a case of a giant cervical lipoma extending to the parotid region.

Case presentation This case is a 34-year-old patient with no particular history (no history of cervical trauma, no history of medication, no history of cervical irradiation, no history of similar cases in the family), presenting with a giant cervicoparotid lipoma without signs of compression. The treatment was surgical. The follow-up did not reveal any complication or recurrence.

Conclusion By reporting this case, we emphasize that cervical lipomas, even if it reaches a large volume, do not manifest themselves by signs of compression, and they can be easily removed without having postsurgical complications.

Keywords Lipomas, Giant, Cervical, Case report

Background

Lipomas are well-defined, usually encapsulated, soft tissue tumors made of fat. Lipomas of the parotid compartment are extremely rare and represent only 0.6 to 4.4% of benign parotid neoplasms. Lipomas that develop in the head and neck represent approximately 15%, with a posterior predilection [1]. The lipoma is considered giant when its size exceeds 10 cm or when its weight exceeds 1000 g [2].

We report a case of cervical lipoma which is distinguished by its giant volume without signs of compression, nor other physical signs, and whose treatment was surgical (complete excision) without damage to the vascular-nervous elements to which they were extended.

Case presentation

This is the case of a 43-year-old patient who has no medical or surgical history (no history of cervical trauma, no history of medication, no history of cervical irradiation, no history of similar cases in the family) and who consulted in our training for a giant right laterocervical mass which the patient observed and which was progressively expanding, without signs of compression, fever, or other ENT signs.

Cervical examination reveals a large right laterocervical mass affecting the right parotid region and extending downwards to the supraclavicular fossa, approximately 20 cm long in axis, soft, and without inflammatory signs (Fig. 1).

The oropharyngeal and nasofibrosopic examination does not reveal any oropharyngeal expression of the mass. The rest of the ENT and somatic examination was normal.

An ultrasound was done revealing a lipoma. The cervicofacial CT showed a large right cervical lipoma extending to the parotid compartment (160 × 100 × 54 mm) (Figs. 2 and 3).

The patient underwent surgical treatment (removal of the lipoma) via cervical incision with a large right preauricular and laterocervical incision, the giant lipoma

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Fig. 1 Clinical appearance of the mass preoperatively

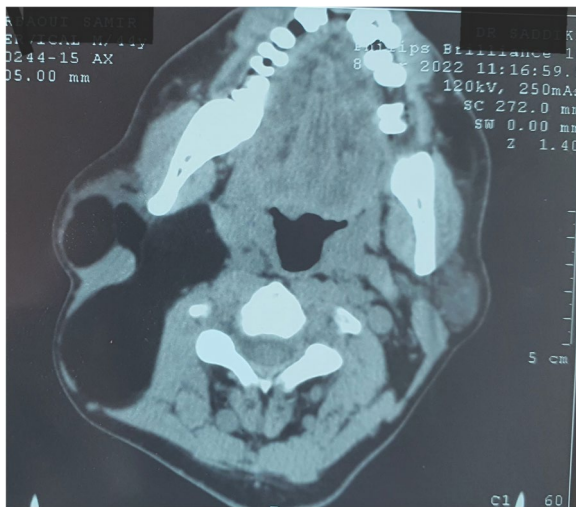


Fig. 2 Axial CT section showing the nature of the mass (lipoma), its location, and its extension

extending to the parotid compartment resting on the lower pole of the parotid, and reaching the base of the skull superiorly and the supraclavicular fossa inferiorly. This lipoma compressed the jugulo-carotid axis and pushed it back medially and posteriorly. The ablation of the lipoma was done while preserving the cervico-facial branches of the facial nerve and the spinal nerve.

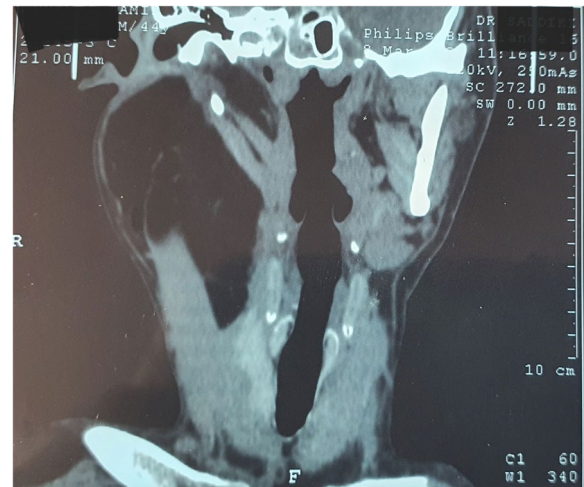


Fig. 3 Coronal CT section showing the nature of the mass (lipoma), its location, and its extension

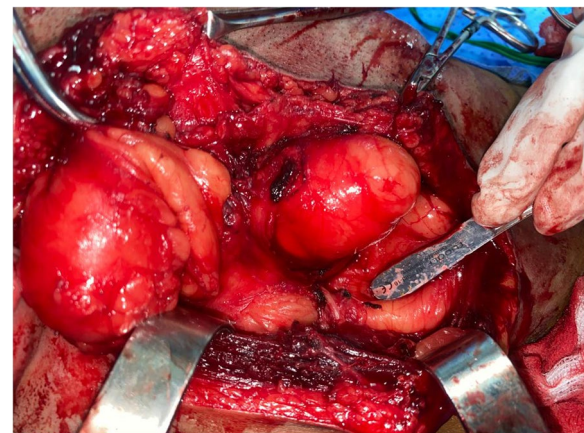


Fig. 4 Photo showing the appearance, volume (giant), location, and extension of the lipoma intraoperatively

The dissection of the lipoma from the jugulo-carotid axis to which it was intimately linked was careful to not cause any per-operative hemorrhagic complications (Figs. 4 and 5).

The operative act was without complications, and the postoperative period was uncomplicated. The patient did not present facial nerve palsy or signs of spinal nerve damage. In the long term, there was no recurrence.

Discussion

Lipomas of the cervicofacial region are relatively rare and frequently occur in the posterior cervical triangle and the face; they are superficial in most cases. Lipomas represent less than 5% of benign tumors of the parotid gland. The average age of manifestation of lipomas is

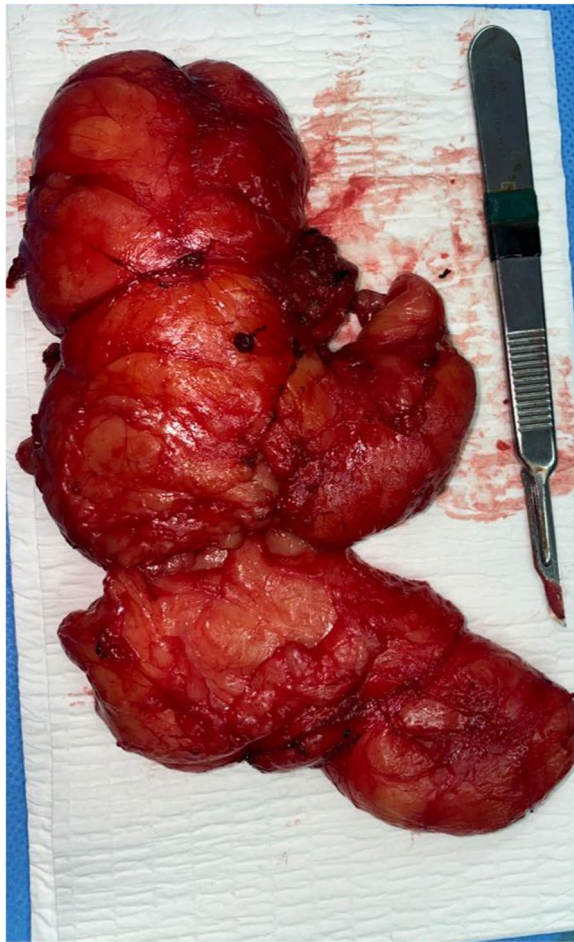


Fig. 5 Photo showing the appearance and volume of the lipoma after surgical excision

over 50 years with a predisposition for the male sex, which is consistent with our case [3].

Lipomas can be linked to the following [4]:

- Chronic alcoholism
- Malnutrition with hormonal/metabolic irregularities
- Taking medication (corticotherapy)
- History of trauma and family history
- Anterior head/neck irradiation

Clinically, cervico-parotid lipomas appear as painless masses, most of which only affect the superficial lobe [5].

In general, parotid and cervical lipomas evolve asymptotically over several years.

Any suspicion of compression of the facial nerve and paralysis should raise fears of possible malignancy [6].

However, giant cervical lipomas can compress or displace nearby organs (tonsils, larynx, pharynx). Intense pain is also described when they become voluminous [7].

The imaging indicated in these cases is ultrasound, magnetic resonance imaging (MRI), and computed tomography (CT). On ultrasound, which is the test of choice for the initial diagnosis of cervical masses, head and neck lipomas are visualized as well-circumscribed masses, hyperechoic to adjacent muscle [8].

Computed tomography (CT) also helps the diagnosis by showing a homogeneous and encapsulated mass with negative density between -50 and -100 Hounsfield units [9].

MRI is the exploration of choice to visualize cervicoparotid tumors, by giving a more precise description of soft tissues. It allows the visualization of the tumor capsule from the adipose tissue, the location of the tumor, and a general orientation on its nature. Lipomas present on T1: a high signal and on T2: a low signal and can be diagnosed as tumors of adipocyte origin on T1 MRI sequences with fat suppression [5], but the radiological assessment does not replace the histological results which confirm the diagnosis [10].

Imaging in general is limited by its inability to definitively distinguish benign from malignant, a distinction that can only be made by performing a histopathological examination of the specimen [5–8].

Parotid lipomas are classified according to their location and their histological subtype: periparotid if they compress the lateral surface of the parotid gland and intraparotid if they are surrounded by salivary tissue [5].

Histopathologically, the lipoma is marked by a thin fibrous capsule surrounding a neoplasm of mature adipocytes of the same size.

Identification of a capsule can help distinguish such a neoplasm from a pseudolipoma, lobular lipomatosis atrophy, or lipomatosis. These are not encapsulated [5–8].

Liposarcoma is the main differential diagnosis of giant cervical lipoma. It is well limited, but it is not encapsulated and invades the neighboring muscular and bony organs [2].

Regarding the treatment of lipoma, surgical excision is the mainstay of treatment. During surgical exploration, the facial nerve is initially identified and followed as usual to the branches of the nerve, as far as necessary for complete tumor excision [11].

In the literature, several techniques have been proposed for parotid lipoma: total parotidectomy, with preservation of the facial nerve, and enucleation with a margin of healthy tissue [12].

Among the most common postoperative complications are lesions and injuries of the facial or spinal nerve [11].

Regular postoperative monitoring is essential to avoid the risk of recurrence and degeneration of the giant cervical lipoma into liposarcoma [2].

Our reported case shows that in our practice, we can have voluminous lipoma in contact with noble vascular-nervous structures of which it is necessary to be careful during surgical excision so as not to cause complications for treatment of a benign lesion.

Conclusion

Giant cervico-parotid lipomas are rare. Imaging plays an essential role in the diagnostic orientation, but the diagnosis of certainty remains histological after the surgical excision of the tumor that must be prudent.

Abbreviations

ENT	Ear, nose, and throat
CT	Computed tomography
MRI	Magnetic resonance imaging

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Authors' contributions

All the authors of this article participated in this work. DB, LA, and FE, diagnosis and treatment of the case and bibliographic study. DB, RH, and AB, writing of the article. The authors read and approved the final manuscript.

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Declarations

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Consent for publication

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Competing interests

The authors declare that they have no competing interests.

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