

GIANT LIPOMA OF THE THIGH: A CASE REPORT

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ABSTRACT

Lipomas are a very common mesenchymal benign tumors, they can be subcutaneous or subfascial,^[1] mostly small, they can grow in size weighing up to 200grams, giant lipomas however are rare and should be differentiated from liposarcomas, computed tomography(CT), Ultrasonography and magnetic resonance imaging (MRI), biopsy and/or immunohistochemistry can help in differentiating the two entities. The authors report the case of a 57 years old woman who was referred to our department due to the presence of a mass growing on the inner thigh of the right limb over the course of 5 years, increasing in size steadily and causing pain and discomfort, ultimately responsible for functional impotence. CT scanning and MRI were performed suggesting the adiposic nature of the tumor, confirmed later by a biopsy, tumor resection was performed shortly afterward.

INTRODUCTION

Lipoma is the most common soft tissue tumor,^[2] giant lipoma on the other hand are rare, they are qualified as giant when they weight over 1000g or are more than 10cm in length,^[3] adding to the size, they have variable topography as well, growing wherever adiposic tissue is located, a correlation between lipoma's size and patient obesity has been noted, as they tend to grow larger in obese patients, it is important to differentiate between giant lipomas and low grade liposarcomas, as both share the same clinical presentation, the authors report the case of a giant lipoma measuring approximately 25cm growing on the inner thigh of the right leg.

CASE PRESENTATION

The authors report the case of a 57 years old woman who was referred to our department of orthopedic surgery due to the presence of a large mass on the inner thigh of the right leg, it had increased in size over a span of 5 years.

The patient reported pain and discomfort, functional impairment appeared last as the tumor grew in size, patient also reported numbness in the leg accompanying the growing pain, edema of the superficial tissue was also reported.

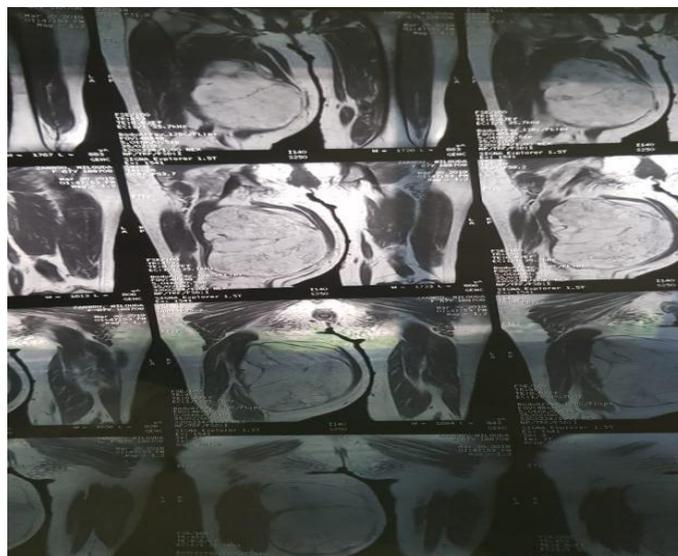


Fig. 1: MRI Image of the giant lipoma, frontal view showing a voluminous tumor with high signal in T1 and T2.

Ultrasonography was performed revealing hypoechoic homogenous mass measuring 250x10x70mm, color Doppler US did not reveal any vascularity within the tumor, radiologic investigation was completed with MRI which confirmed the presence of well circumscribed mass with high signal in T1 and T2, encapsulated with

the presence of intratumoral septum, but with no cleavage plan separating it from the adjacent inner thigh muscles.

These findings suggested lipomatous mass as already suspected by Ultra sonography.



Fig. 2: Clinical presentation of the lipoma.

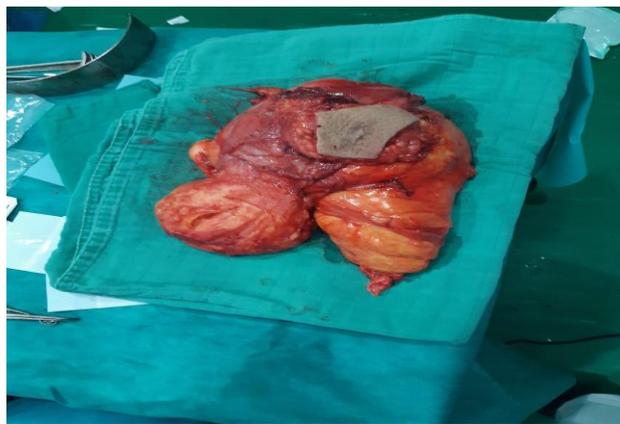


Fig. 3: Post operative image of the lipoma after excision.

The lesion underwent a surgical biopsy which confirmed the diagnosis of lipoma, followed shortly by surgical

excision with a second histological examination confirming the benign nature of the tumor.

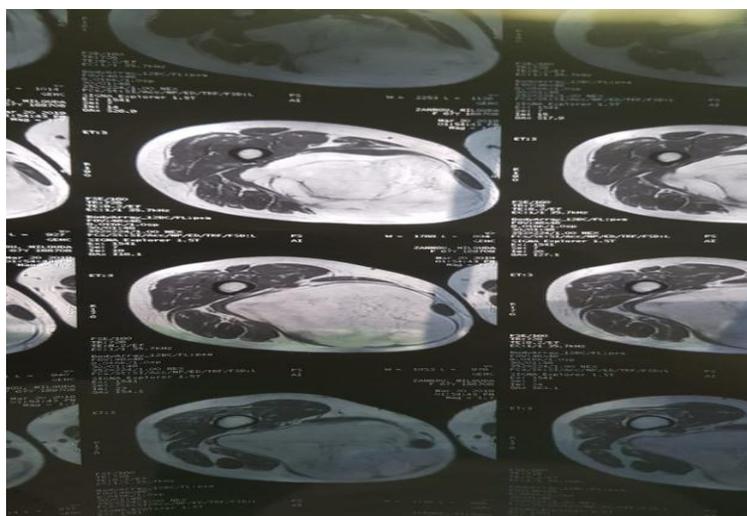


Fig. 4: Transverse view of the tumor in MRI.

DISCUSSION

Giant lipomas are large mesenchymal tumors formed by multiple fat lobules, although there's no clear etiology, some authors talk about a sporadic or genetic,^[4] origin, others about metabolic/endocrine causes,^[5] even traumatic causes have been described, by destruction of fibrous septums making proliferation of adipose tissue easier.^[6]

Due to their size and excessive weight, and depending on their topography, they can be responsible of compressing vascular and nervous structures creating pain and discomfort,^[7] as well as functional impotence, edema, they also present a non negligible chance of malignant transformation into a liposarcoma. Speaking of which, differentiating between giant lipoma and low grade liposarcoma is of utmost importance, as both share similar clinical features,^[8] it is necessary to search for elements that are uncommon in benign lesions in order to guide the diagnosis.

A systematic and well hierarchized radiological exploration can be of great help, an X-ray, Ultra sonography and MRI with an obligatory surgical biopsy will give all the arguments in favor of a giant lipoma and aid greatly in differentiating it from a malignant mass.^[9]

MRI findings in particular are helpful, giant lipoma appears as a homogenous, well circumscribed, with high signal in T1 and T2 (similar to subcutaneous tissue), and clearly individualized compared to the muscles of the area, not taking contrast after injection of Gadolinium, MRI study also shows presence of septums or nodular component.^[10]

Surgical biopsy is the only exam that can confirm diagnosis of giant lipoma, histological examination show presence of mature adipocytes with no cellular abnormalities.

Ideal treatment of giant lipoma is surgical excision, permits removal of the tumor and prevents recurrence of the lesion^[11], surgical exposure is usually simple in superficial lipomas but can prove to be a challenge in profound ones,^[12] excision can be marginal in obvious case of benign giant lipoma or large in borderline lesions or if there's doubt about the malignancy of the tumor to prevent recurrence.

Lipoaspiration has been reported in literature but present a higher risk of recurrence and excision can never be total following this method,^[13]

Evolution of giant lipoma is mostly favorable after surgical excision,^[14] recurrence is extremely rare after a complete excision.^[15]

CONCLUSION

Giant lipoma is a rare variant of a very common benign

lesion, the lipoma, making the difference between giant lipoma and low grade liposarcoma is important and surgical biopsy is the most reliable way to do so, surgical excision is the treatment of choice, removing the tumor and preventing recurrence, post operative surveillance is important to detect a recurrence which can be the cause of an intratumoral necrosis or malignant degeneracy.

Conflict of interest

The authors report no conflict of interest.

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Ethical approved

This is a case report and the patient give us informed consent for publication so therefore ethical approval is exempt at our institution

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