

Giant Lipoma of the Thigh: An Uncommon and Unusual Location

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Abstract

Case Report

Lipoma is a benign soft tissue tumor, composed of mature fat cells. It represents by far the most common benign mesenchymal neoplasm which can occur throughout the whole body, but it rarely originates in the thigh. Due to its rare etiologic origin and obscure cause of development, we hereby report on a case of a lipoma in a 20-year-old female who presented with right thigh chronic swelling that was treated by surgery. Histopathology is fundamental in detecting a malignant transformation.

Keywords: Lipoma; thigh; complete excision.

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INTRODUCTION

Lipomas are the most common of benign soft tissue neoplasms occurring throughout the entire body [1, 2]. Most lipomas rarely cause symptoms due to their superficial location and small size, therefore, surgical resection is required only under conditions of pain, cosmetics, rapid growth rate or and concerns over diagnosis [2, 3]. However, lipomas of the thigh are rare. Due to this fact, we report herein a case of a giant lipoma located in the right thigh causing chronic pain, which was treated by surgery.

CASE REPORT

A 20-year-old female presented with intermittent right thigh pain for 7 months. The patient had stable vitals. On examination, a soft mass at the lower anterior third of the thigh was detected on palpation extending up to the knee with mild tenderness (figure 1). There was no lymphadenopathy. Blood investigations were within normal limits. Plain-film radiograph was without lysis or erosion (figure 2).

Ultrasonography showed a well-defined homogenous fatty submuscular mass with a thin capsule.

Biopsy of the lesion was conclusive of spindle cell type of lipoma. For definitive diagnosis and relief of symptoms, surgical management was proposed. Under spinal anesthesia a large soft encapsulated mass of the lower anterior third of the thigh was located under rectus femoris muscle (figure 3). Complete excision was performed successfully with rigorous hemostasis (figure 4).

The resected specimen showed a polylobular fatty mass, measuring 18×12×10 cm in size, and then skin closure with a suction drain left in place.

Histological examination confirmed the diagnosis of lipoma and excluded malignancy. The postoperative course was uneventful, and the patient left the hospital on the third postoperative day.



Fig-1: A giant swelling of the lower anterior third of the thigh



Fig-2: X-ray radiograph without abnormality

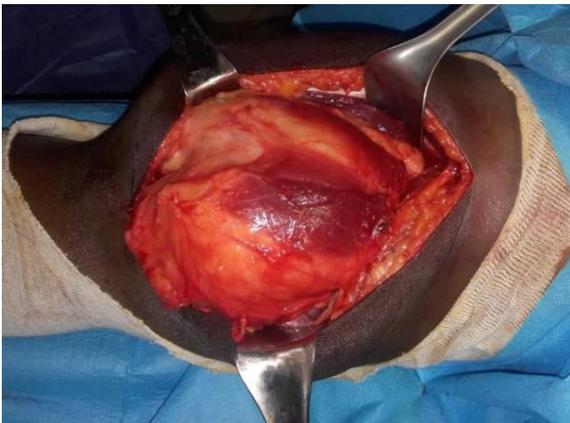


Fig-3: Intraoperative view of fatty mass removal



Fig-4: The resected specimen showed an encapsulated fatty mass, measuring 18×12×10 cm in size

DISCUSSION

Lipomas are the most common type of soft tissue mesenchymal tumors and can arise anywhere in the body [2,4]. The exact prevalence of lipomas is unknown; however, it is likely far higher than reported, because most cases with lipomas may be ignored due to their silent nature. They can arise from either deep or superficial structures and be single or multiple (lipomatosis) [5]. Most arise between 40 and 60 years of age and are slow growing, benign tumors [4]; they have a predilection for the trunk and are the most uncommon tumors of the thigh [6]. The exact etiology and pathogenesis of intramuscular lipomas remains

unclear. An increased incidence is associated with obesity, diabetes mellitus, elevation of serum cholesterol, radiation, familial tendency, chromosomal abnormalities [7]. Lipomas can be detected clinically when superficial or radiologically when deep. Clinically, they appear as a soft and mobile mass. On ultrasound they appear as iso- to hyperechogenic texture (when compared to the adjacent muscles), surrounded by a thin, echogenic capsule [8]. MRI is very suitable for the diagnosis of lipoma. When treatment of lipoma is warranted, complete surgical excision is advised and it is easily performed because

the capsule that surrounds the tumor presents a clear cleavage plane [9].

Incomplete resection can lead to tumor recurrence; the acceptable recurrence rate is less than 5% [2]. Macroscopically, lipomas are soft, yellow or tan coloured mobile structures which are generally well defined from surrounding tissues. Histologically, they are composed of well-defined adipose tissue with a fibrous capsule [10]. Malignant change of lipoma to liposarcoma is virtually unknown and should be considered [11].

CONCLUSION

Giant lipoma of the thigh is a very rare entity, and many cases might be ignored due to their silent nature. Histological examination after complete tumor removal remains necessary to confirm the diagnosis and rule out malignancy particularly liposarcoma. Despite radical excision, there is a risk of recurrence after a variable time period. Hence, a long-term follow-up is recommended in such patients.

Contributions of the authors

All authors have read and approved the final version of the manuscript.

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