Giant Lipoma of the Thigh

Abstract

We are presenting a case of 37 years old male with large lipoma of the right thigh. We discuss the clinical presentation, diagnosis and surgical treatment of the case. Large dimensions (35cm x 30cm) and the intramuscular origin of the tumour in the anteromedial aspect of right thigh are its particular features. Tumour is treated by successful surgical excision.

Keywords: Giant lipoma, Lipoma, Soft tissue tumour.

Introduction

Lipoma is the most common tumour of the soft tissue.\(^1\)^\(^2\) Over time the classification of lipoma is changed with the inclusion of some new varieties of lipomas (atypical lipoma), well-differentiated liposarcoma and dedifferentiated liposarcoma. Malignant change may occur in adults. A lipoma can be found in almost all the organs of the body where fat normally exists, which is why it is also known as an ubiquitous tumor or universal tumor.\(^3\) The most frequent locations of lipoma are the following: the extremities, retroperitoneal, the groin, scrotum, and the abdominal wall.\(^4\)^\(^5\) Presentation is usually as painless subcutaneous swelling.\(^6\) Surgery is the main treatment. Histopathology is the most important prognostic factors for patients with lipomatous tumour. Complete surgical excision reduces local recurrence rate. We present a patient with large lipoma of the right thigh with diagnostic and treatment aspects.

Case Report

A 37 years old male patient from Azad Kashmir presented in surgical outpatient department, with a seven year history of painless swelling over the right thigh. The swelling increased progressively in size with the time. There was no other such swelling in other parts of the body. He has difficulty in walking especially for long distances due to disproportionate weight of the leg due to swelling. There was no past history of trauma, fever or foreign body impaction. Swelling was increased rapidly during last one year before presentation and this was associated by fatigue. He attended multiple medical practitioners and quacks and had treatment with no positive response. He also used locally some herbal ointments or creams.

A young male patient is neither jaundiced nor pale on general physical examination. The cardiovascular system was normal. His chest was clinically clear. Examination of right limb revealed a huge, globular and well-circumscribed lump involving the anteromedial and posteromedial aspect of the right thigh, measuring about 35x30 cm, with well-defined edges. (Figure 1 and 2)
On palpation, the mass was non-tender with normal skin temperature. It was attached to the underlying tissues but overlying skin is free. The mass was firm in consistency with no slipping or compression signs. There was no bruit heard over the mass. There was no inguinal lymphadenopathy. The left limb was grossly normal. Provisional clinical diagnosis of soft tissue sarcoma was made. Haematological investigations were within normal limits with haematocrit was 34%. The ultrasound of abdomen and pelvis revealed no abnormality. Ultrasound of right thigh showed a huge soft tissue mass with some cystic areas. Plain radiography of the right thigh confirmed a soft tissue mass with no bony abnormality. Magnetic Resonance Imaging (MRI) scan revealed a huge, well-circumscribed, heterogeneous soft tissue mass occupying the medial compartment of the right thigh. The tumour extended from the level of inguinal region down to the knee. All bony structures were normal. Computerized Tomography (CT) scan done for academic purpose and confirmed the fatty composition of the tumour. The radiological diagnosis was a fatty tumour, keeping in mind Liposarcoma. The chest radiograph was normal.

Surgery was planned and excision was done successfully under general anaesthesia. (Figure 3) Haemostasis was secured and wound was closed without any tension after placing suction drain. Specimen was sent for histopathological examination. Post-operative recovery was smooth without complications. The macroscopic examination of the specimen revealed a huge and well encapsulated mass measuring about 33.5x23 cm. The weight of the mass was 3.6 kg. Histopathology confirmed the diagnosis of lipoma of giant variety. Drain was removed on third post operative day. He made remarkable progress and was discharged after one week of hospital admission.

**Discussion**

Lipomatous tumours are the most common soft tissue tumours. Different sizes and common location sites of the giant lipomas have been described in the literature. For a lipoma to be referred to as “giant,” it should be at least 10 cm in diameter or weigh a minimum of 1000 grams, as was the case in our patient. These tumours due to their large size may exert pressure effects on the neighboring vital structures and patient may present because of the pressure symptoms like functional limitations, lymphoedema, pain or nerve compression syndrome. Lipomas can also cause meralgia paresthetica (pain or dysthesia in the lateral thigh caused by entrapment of the lateral femoral cutaneous nerve underneath the inguinal ligament). Other presenting symptoms may be dragging sensation, bleeding from the site of ulceration, and thrombophlebitis. Patients are likely to present earlier if they suffer functional disabilities. Patient may live with them for long period of time. Sometime the social pressure may be the only reason for seeking medical advice.

Our patient presented because of difficulty in walking with fatigue and importantly social pressure. He initially went for local herbal treatment before attending to a tertiary care hospital. This reflects the increasing false
popularity of alternative medical practice by the media in our community, that herbal medicine is effective and cheap. Clinical examination and investigations confirmed the diagnosis of fatty tissue mass. Fine needle aspiration cytology (FNAC) has been proposed as an alternative to excisional biopsy but this is wholly unreliable. This is because liposarcomas may contain areas of normal adipose tissue as a result of their lack of homogeneity. MRI has been established to aid in arriving at diagnosis and features that suggest nature of the mass are well-circumscribed, heterogeneous mass of fatty composition. Many of these factors were present in our case.

Johnson et al suggested that any soft tissue tumor that is greater than 5 cm, should be considered malignant until proved otherwise. In our case, the size of the tumor was >5 cm, but histopathology revealed a benign lesion.

The ultimate treatment of giant lipoma is wide surgical excision, because these large tumors may undergo malignant transformation. Careful wide excision is done successfully in our case. Despite radical excision of the tumour, there is a risk of recurrence after a variable time period. Hence a long-term follow-up is recommended in such patients.

Conclusion

To the best of our knowledge, the size of the lipoma presented in our case has not been previously described in national medical literature; however few international case reports are published. Although MRI and CT have confirmed the diagnosis of fatty tissue, the final confirmation is made by histopathological examination. The importance of histological diagnosis cannot be overemphasized, as exemplified by this case. Surgical excision is the treatment of choice to alleviate the symptoms and the apprehension of malignancy and provides definite tissue diagnosis.

References