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Case Report

Giant lipoma with malignant mesenchymal component in right arm: a rare presentation

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ABSTRACT

Lipomas are commonly found benign tumors of the adipocytes, which can vary in size greatly and can be present anywhere in the body where there is fat, therefore it is also known as universal tumor. These can produce symptoms by compressing nearby structures or can be asymptomatic and only cause cosmetic problems. We presented a case of a 64 years old male patient who presented with a huge swelling in the right arm occupying its medial, posterior and lateral aspects. It was asymptomatic but was causing disfigurement of the right arm and therefore the patient wanted it removed. Excision of the lipoma was done under general anesthesia, and there were 2 giant lipomatous masses 14 by 17 and 10 by 13 cm. Histopathology report showed it to have malignant mesenchymal components. Giant lipomas are more likely to show malignant conversion, therefore it should always be sent for histopathological examination. Preoperative radiological examination in giant lipomas help in defining the extent of involvement of the tumor and helps in better surgical decision making.

Keywords: Lipoma, Liposarcoma, Malignant mesenchymal component

INTRODUCTION

Lipomas are common benign tumors which can be present anywhere in the body where there are adipocytes.

They are believed to arise from primordial adipocytes and not from adult fat cells, therefore increasing in size as the patient accumulates adipose tissue but not decreasing with weight loss.[1] Lipomas are slow growing tumors which if more than 10 cm in greatest dimension or weighing more than 1000 g, is referred to as a giant lipoma.[1,2]

Giant lipomas are rarely found in the upper extremities. We presented a case report of 2 giant lipomas in the right arm of a patient connected by fibrous tissue which had malignant mesenchymal component within the lipomatous mass, measuring 14 by 17 cm and 10 by 13 cm, and weighing 2.2 kg.

CASE REPORT

64 years old male patient came to our OPD with complaints of swelling in the right arm since, 2 years which was increasing in size since it was first noticed by the patient. There was no history of pain associated with the swelling, there was no decrease in movement of the limbs, and there was no sensory loss in the limb. Swelling was present in the posterior aspect of the right arm extending to the medial and lateral aspects. There was disproportionate increase in the size of the right arm, causing cosmetic disfigurement. There was no history of trauma, no history of past surgeries, no history of any medical co morbidities like diabetes mellitus, hypertension etc. Patient is a tobacco chewer since, 20 years. Denies consumption of alcohol. On examination, there was a swelling 15 by 20 cm in the right arm involving the posterior, medial and lateral aspects, soft consistency, non-tender, mobile, not fixed to skin, no local rise in

temperature. MRI of the affected limb was done which had the following finding- there was evidence of large, well encapsulated fat equivalent signal intensity lesion measuring 67 by 125 by 195 mm involving intramuscular compartment of posterior and medial aspect of mid arm with large cystic lesion measuring 66 by 54 by 51 mm seen along the medial aspect of this lesion. Also seen were few irregular T2/STIR hyperintense areas seen involving posteromedial aspect of this lesion (sarcomatous change). It was causing mild displacement of the neurovascular bundle but no evidence of surrounding infiltration seen. As the above MRI finding had a suspicion of malignancy, we did a biopsy of the lesion which reported the lesion as a lipoma with no evidence of malignancy. Surgery planned was excision of the lipoma.

Intra-operative findings

Patient in left lateral position, general anesthesia given, vertical incision given over the posterior aspect of the right arm, 10 cm in length. Incision deepened upto the triceps muscles, tricep muscle fibres separated to reach the lipoma. Lipoma separated from the other structures by finger dissection. 2 large lipomas connected to each other by fibrous tissue removed. Haemostasis was achieved and surgical incision closed in layers.

The specimen

2 giant lipomas well encapsulated with smooth surface and soft consistency connected to each other by a fibrous connecting stalk. There was no areas of haemorrhage and necrosis. The weight of the lipomas was 2.2 kg. Histopathology was suggestive of malignant mesenchymal tumor within existing lipoma. Advised immunohistochemistry for confirmation and typing. The patient was not willing for further histopathological examination and further treatment. After 10 days of the surgery, sutures were removed, wound was healthy with no seroma formation.

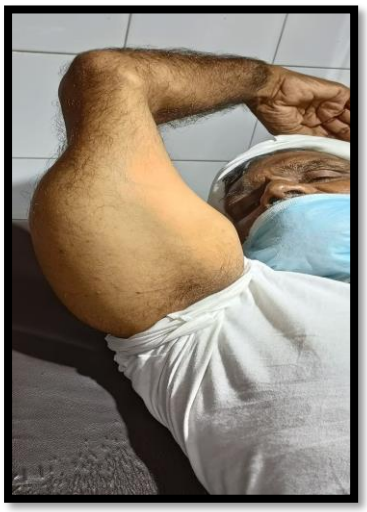

Figure 1: Pre-operative picture.

Figure 2: Triceps muscle separated to visualize the lipoma.

Figure 3: Lipoma being delivered out of the incision.

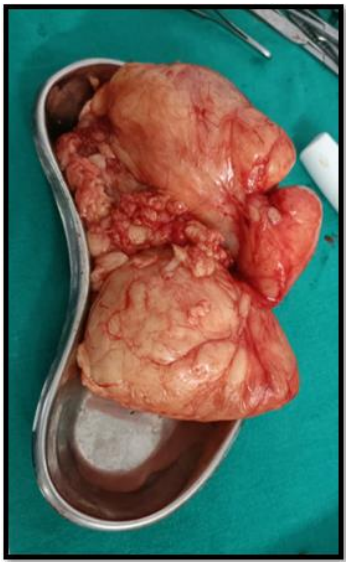

Figure 4: Lipoma being delivered out of the incision.

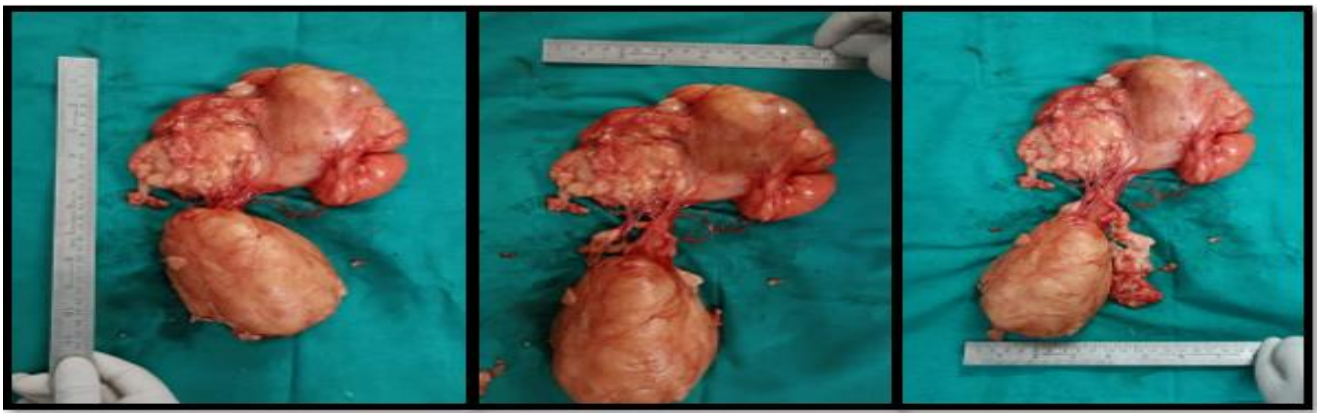

Figure 5: The entire specimen delivered out.

DISCUSSION

In literature, giant lipomas have been described as measuring up to 10 cm and weighing up to 1000 g. Most commonly it is found on the nape of neck, around the scapula, over the back and in the thigh. Presence of a giant lipoma in the upper extremity is rare.[3]

The exact etiology of lipoma is unknown but can be associated with obesity, hypercholesterolemia and trauma.[4,5] Trauma is said to cause lipoma due to rupture of fibrous septae, which induces adipose tissue migration and proliferation.[6,7] We did not detect any of the etiological factors in this case.

Radiological assessment of giant lipoma is useful in diagnosis and planning of surgery. In this case, MRI was done which showed small area of sarcomatous change within the lipoma. However, there was no infiltration into the surrounding tissues and therefore excision of the giant lipoma without damaging other structures was possible.

Giant lipomas are primarily a cosmetic problem. They may cause functional limitations due to their size and weight or compression of surrounding structures. In this case we did not find any of the functional problems, but due to cosmetic reasons the patient wanted the lipoma excised. The treatment of choice of lipomas is complete excision with its capsule.[8,9] In the present case the lipoma was completely excised, and the post operative cosmetic results were excellent and satisfactory for the patient.

The transformation of a giant lipoma to liposarcoma can happen but is rare.[10] Histopathological examination of these giant lipomas must be performed carefully to rule out malignancy. Warning signs of a soft tissue tumor being malignant are- size larger than 5 cm, increasing in size, painful, deep to the fascia, recurrence after previous excision.[11] In this case there was evidence of malignant mesenchymal cells within the lipoma, however margins were not involved. IHC was advised by pathologists for further categorization of the tumor but the patient was not willing for further investigations and treatment inspite of adequate councelling.

CONCLUSION

Giant lipomas cause cosmetic disturbances, and rarely functional problems. Giant lipomas are more likely to transform to liposarcomas therefore radiological investigation specially MRI before surgery helps in surgical decision making and patient councelling. Giant lipomas should always be sent for histopathological examination due to chances of malignant conversion.

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