

Mammoth Lipoma of the Back - A Case Report

Alish Rajesh Mehta¹, Vikram Sharma², Sandeep Dave³

^{1, 2, 3} Department of General Surgery, Ramkrishna Care Hospital, Raipur, Chhattisgarh, India.

INTRODUCTION

Lipomas are very common benign tumours of mesenchymal origin. Lipomas occur with an estimated prevalence rate of 2.1 per 1000 amongst all tumours that can involve in the human body. There have been only 5 cases of giant lipomas published to date.¹⁻⁵ This case report describes a unique giant lipoma located in the upper back with 30 x 30 cm in measurement and weighing 3800 grams.

PRESENTATION OF CASE

A 58-year-old man presented to the Department of General Surgery with a complaint of a lump on his back. The lump was painless. He had been aware of the lipoma for five years. However, the lesion had enlarged ever since. The lump prevented him from lying in the supine position, causing difficulty while sitting in an erect position and dressing. His physical appearance embarrassed him, which prevented him from going out. In this patient, there was no relevant family history, chronic systemic disease, or any specific predisposing factors. Physical examination was done, which revealed a fully mobile mass with distinct borders and thickening of skin over its apex. It was found localized in the mid-thoracic region with extension from the cervical region to the upper lumbar region (figure 1). History of surgery done was 30 to 40 years ago at the same site when swelling was present. Scar of the previous surgery was seen and was healthy. The indication, type of procedure, or the records of the same were not available with the patient.

CLINICAL DIAGNOSIS

On clinical examination of the lump, the probable diagnosis of lipoma was made. Differential diagnoses of lipoma and liposarcoma were considered. The body mass index (BMI) of the patient was 29.4 kg/m² (height: 170 cm, weight: 85 kg). On ultrasound (US) examination a lipoma-like mass measuring 30 x 30 cm with sharp contour, homogenous, and isoechoic with subcutaneous fat tissue was seen. Magnetic resonance imaging (MRI) confirmed the mass and also had a signal characterization similar to the subcutaneous fat tissue. It was a fibrous septate structure with no evidence of malignant transformation or paravertebral intramuscular expansion and was detected between T2 and L4 (Figure 2).

Corresponding Author:

*Dr. Alish Rajesh Mehta,
Department of General Surgery,
Ramkrishna Care Hospital,
Aurobindo Enclave, Dhamtari Road,
Pachpedi Naka, Raipur - 492001,
Chhattisgarh, India.
E-mail: mehta.alish@gmail.com*

DOI: 10.18410/jebmh/2021/396

How to Cite This Article:

Mehta AR, Sharma V, Dave S. Mammoth lipoma of the back - a case report. J Evid Based Med Healthc 2021;8(24):2117-2119. DOI: 10.18410/jebmh/2021/396

*Submission 25-02-2021,
Peer Review 05-03-2021,
Acceptance 27-04-2021,
Published 14-06-2021.*

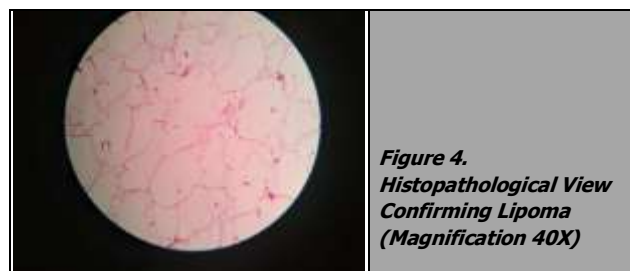
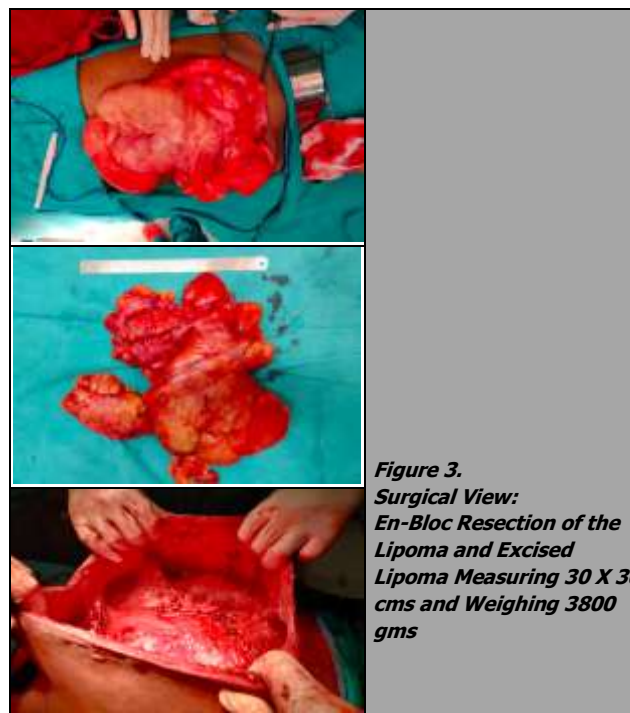
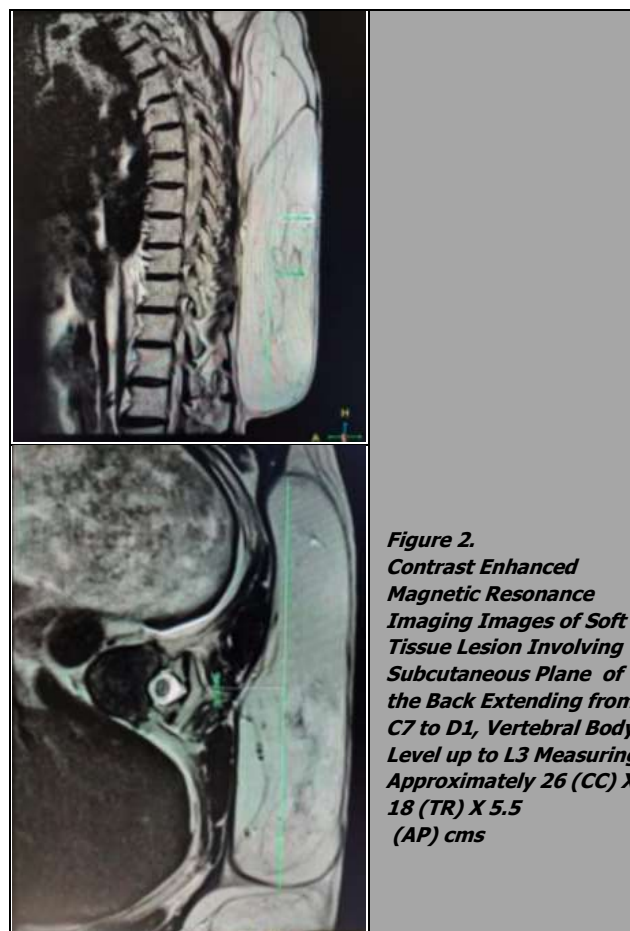
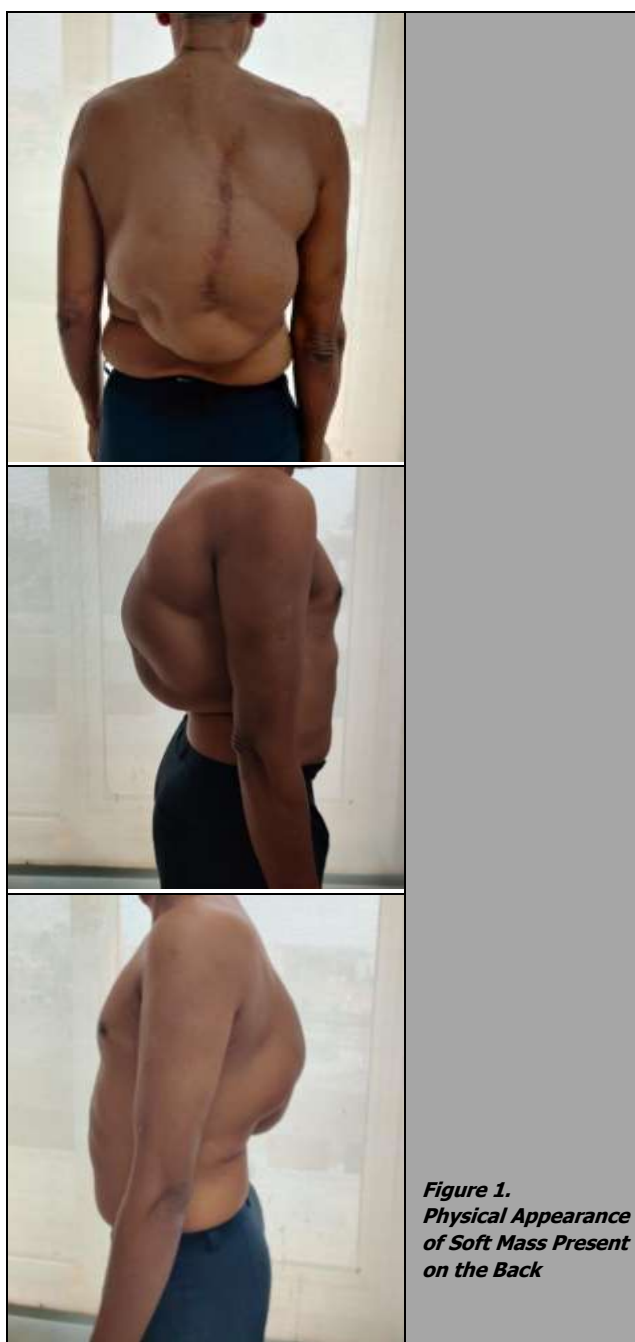
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DIFFERENTIAL DIAGNOSIS

Differential diagnosis of lipoma and liposarcoma were considered. The preoperative diagnosis was a lipoma by fine needle aspiration cytology (FNAC).

PATHOLOGICAL DISCUSSION

A specimen was sent for histopathological examination (Figure 3), and the results indicated a lipoma weighing 3800 g and measuring 30 x 30 cm. Tissues obtained was fixed using 10 % neutral formalin solution and was embedded in paraffin. Manual sections were made with a microtome to obtain 4 - 5 μm. Thick sections of paraffin and sections that were dewaxed were subjected to haematoxylin and eosin (H&E) staining. (Figure 4).



DISCUSSION OF MANAGEMENT

The patient was prepared for surgery while in the prone position. The patient received general anaesthesia. An elliptical incision that encircled the overlying thickened skin and extended longitudinally to the terminal ends was performed. The lipoma mass with its covering of excess skin was excised, size 30 x 42 cms in the longest diameter. A closed suction drain was kept, which was removed on postoperative day three. No hematomas, wound complications, infection, or neurological complications were detected post-operatively on a post-operative day three. The patient was fit for discharge and discharged with follow-up advice.

A solitary lipoma is the most frequent soft tissue tumour of adipose tissue, often appearing between 40 and 60 years of age.⁵ A lipoma is considered a giant when it weighs 1000 grams or measures at least 10 cm in diameter.⁶ As was the case in our patient, its volume and size are the sources of a good many social life problems. Multiple health problems such as pain, difficulty in sleep, compression of nerves or vital structures, infections, etc., are the common chief complaints from patients with giant lipomas.

These giant lipomas have a tendency towards malignancy.⁷ So as to rule out the chance of malignancy, MRI was done in this case before subjecting the patient to surgical intervention. Malignancy is suggested when the swelling occurs in old age, is large in size with the presence of septa and nodularity, adipose mass-like areas, and decreased percentage of fat composition are also suggestive of malignancy.⁸ Many of these parameters were present in our patient.

Johnson et al. suggested that any soft tissue tumour that is greater than 5 cm should be considered malignant until proved otherwise.⁹ In our patient, the size of the tumour was > 5 cm, but histopathology revealed a benign lesion. The most common surgical treatment for lipomas is an en bloc resection of the tumor.⁶ Liposuction has been proposed as an alternative surgical treatment. However, given its high relapse rate, the indication for this treatment has been restricted/reduced.¹⁰ Magnetic resonance imaging allowed the accurate definition of the limits and infiltration of the tumour in the neighbouring tissues, been helpful in the tumour dissection. In this case reported, the lipoma had a well-defined contour provided by its fibrous capsule, making its resection easy. Since the superficial muscles of the back were also involved, care had to be taken while excising the lipoma.

In this case, the primary concerns of the patient were the discomfort and the apprehension of malignancy, which were relieved completely after surgery. The pre-operative findings and histopathological features confirmed the diagnosis of benign giant lipoma. These tumours have a tendency for recurrence, and the patients should be kept under regular follow-up.

CONCLUSION

All lipomas measuring more than five centimeters should be excised due to their tendency towards malignancy. Pre-operative imaging must be done to discern the tissue planes. Surgical excision is the treatment of choice so as to alleviate the symptoms.

These lipomatous masses may recur with incomplete excision, and liposarcomas may require a larger repeat excision, chemotherapy, or radiation.

Financial or other competing interests: None.

Disclosure forms provided by the authors are available with the full text of this article at jebmh.com.

We acknowledge the technical support in data entry, analysis, and manuscript editing by "Evidencian Research Associates.

Informed written consent was obtained from the patient prior to the study. Data confidentiality was maintained. The patient was followed up for three months post-operatively, and the period was uneventful.

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