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Case Report

Giant recurrent lipoma of trunk weighing eight kilograms

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reveal any case report of similar proportions or multiple benign recurrences. The lipoma extended across the left anterior chest, axilla, arm and to the back and shoulder joint. It was successfully excised with a neurovascular and muscle function sparing approach.

Case report

An 82-year old male patient presented with a massive subcutaneous swelling extending over the left trunk. He gave history of 4 previous attempts at removal with recurrences within 1–2 years. He was resigned to his fate till the massive proportions interfered with his limb function and inability to lie flat.

Examination revealed a healthy male with scoliosis and obvious dropping of left shoulder. There was a massive multilobulated swelling extending from the left shoulder and back to the posterior arm, axilla and across to the anterior chest. It occupied the entire left posterior trunk from shoulder till iliac crest and was indiscrete around the axilla. Overlying skin had healed scars of previous surgery with dilated veins (Fig. 1). Shoulder movement was restricted due to mass effect and weight. There was no neurovascular deficit or edema noted in the left upper limb. Two additional medium size lipomas were noted at the nape of neck and rt shoulder.

FNAC from multiple sites revealed a lipoma. MRI demonstrated extensive submuscular extension under the pectorals, deltoid, trapezius and latissimus dorsi muscle with no involvement of axillary neurovascular structures (Fig. 2).

The patient had no comorbidities and was operated under general anesthesia in a semiprone position. A 45 cm incision was made commencing from the posterior rt elbow, arm,

Introduction

Lipomas are common benign mesenchymal tumors of mature lipocytes, comprise 10% of all tumors and present in diverse subcutaneous locations.¹ The majority are less than 2 cm² and weigh few grams. Giant lipomas have been defined by Sanchez as those with a size of more than 10 cm and a weight of over 1000 g.² Recurrent lipomas pose a risk of necrosis and malignant degeneration may occur in those arising from the thigh or retroperitoneum.³

Though slow growing, lipomas can attain massive proportions, mainly due to delay in seeking medical aid.⁴ Though medium lipomas are easily removed by liposuction, excision is required for extensive lesions spreading across anatomic regions and planes.

We present what we believe is the largest reported lipoma excised following 4 previous surgical recurrences. An extensive English literature search of published reports did not

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Fig. 1 – Giant recurrent lipoma extending across left arm, shoulder, chest, axilla and posterior trunk. Well healed faint scars of previous 4 surgeries are seen.

shoulder and through the lateral back to the iliac crest. The lipoma was dissected starting from the elbow upward. Apart from the subcutaneous portion there was extensive tumor under the deltoid with insinuation under the coraco acromium. It had also spread under the pectorals, trapezius and latissimus across the axilla, from where it was dissected safeguarding the neurovascular structures. Submuscular portions were removed after splitting the overlying muscles in a function preserving approach (Fig. 3). The deltoid was thinned out to less than a cm thickness.

There was moderate blood loss of 700 ml. The entire lipoma was contiguous with a discernable capsule. The removed specimen weighed 8000 g and measured 106 × 18 cm (Fig. 4). Redundant skin was excised and closure done over suction drains. The patient had an uneventful recovery with drain removal on 4th post-operative day. There was no collection, skin necrosis or wound healing problem. After thorough grossing, histopathological examination of multiple sections revealed no evidence of necrosis or malignancy. Early follow

up at 3 months did not reveal any evidence of recurrence on clinical exam and Ultrasonography. He has been advised regular follow up at 6 monthly intervals till a year.

Discussion

Giant lipomas are reported every few years. Their occurrence is usually sporadic with no definitive etiology. There have been numerous postulations regarding the same including trauma, metabolic or endocrine causes. Our patient was a healthy farmer with no evident cause or family history.

Most giant lipomas reported involve a single anatomical area with few involving contiguous areas by gradual spread.⁵ Our patient had not only a massive size tumor but it was spread over multiple areas; anterior chest, axilla, arm, shoulder and entire flank. It's extent was both subcutaneous and submuscular and upto the shoulder joint capsule under the coraco acromion. This required repeated patient position

Fig. 2 – Coronal and axial T1 weighted images showing extensive subcutaneous and submuscular spread with lesion extending from chest, across axilla to back & arm. Note T1 image showing discrete tumor margins in arm and chest separate from humerus and axillary neurovascular bundles.

Fig. 3 – Intraoperative muscle split approach to deliver the sublatissimus component.

Fig. 4 – The excised specimen. It weighed 8 kg and measured 106 × 18 cm.

shifting for access. The function preserving approach dictated preservation of not only all neurovascular structures but also all muscles. Though recurrences are not reported to be high but adherence to surrounding tissues poses problems in excision.⁵ Our patient had undergone 4 previous surgeries and adhesions made the dissection painstaking and tedious. To prevent neurovascular damage dissection was done close to the lipoma capsule and flat muscles split to deliver the deep component of the lesion. Since the large mass and weight made tumor handling difficult, the lipoma was disconnected in the axillary region to ensure ease of dissection. The largest feeder vessels were evident in the anterior axillary fold though multiple vessels were present throughout the lesion.

Recurrent giant lipomas are uncommon and there are rare reports of giant lipomas with 4–5 recurrences.⁶ Malignant transformation is rare and described in retroperitoneal and thigh lipomas.

An extensive English literature web search revealed that the present report of a 8000 g lipoma is probably the largest discrete recurrent lipoma reported in more than 100 years. A report of 4 giant lipomas reported in *Journal of Plastic Reconstructive and Aesthetic Surgery* included a 12,350 g lipoma arising from the anterior abdominal wall as a subdermal fatty swelling. The authors attempted liposuction but could not succeed due to fibrosis. They excised an ‘irregular subcutaneous lesion’ without capsule and could not estimate the dimensions due to indistinct margins.⁷ Giant lipomas are medical curiosities and usually attain their size over decades. Early excision for these lipomas is advocated since they may be prone to complications and malignant degeneration.⁸ Complete excision is rarely followed by recurrence. This report of an 8000 g and 4th recurrence of lipoma, is of the largest discrete recurrent lipoma excision. Such gross cases, though isolated, are likely to be reported from developing nations or apathetic patients. After 4 recurrences our patient had become resigned to his fate till increasing disability and poor quality of life led him to seek another surgical referral. Increasing awareness and rapidly improving, wider reaching medical facilities in many developing countries will possibly make such clinical curiosities even more rare.

Conflicts of interest

All authors have none to declare.

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