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CASE REPORT : LIPOSARCOMA OF THE SHOULDER

General Surgery

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ABSTRACT

Lipoma, a benign neoplasm of adipocytes, is the most common mesenchymal soft tissue tumor of adulthood, but rarely present with huge sizes in their cutaneous localization.
Liposarcomas are the second most common soft tissue sarcoma following malignant fibrous histiocytoma. They comprise approximately 16-18% of all malignant soft tissue tumours. It is most common in the trunk followed by lower extremity, upper extremity and head and neck.. While lipomas can be clinically diagnosed , transformation of lipomas into liposarcoma is rare. Here we report the case of a 55 gentleman, who came with a history of swelling over the right shoulder with a probable malignant transformation due to history of long duration of presence of swelling.
Management is usually by wide excision. Local radiation and chemotherapy may be necessary for high grade lesions.

KEYWORDS

Liposarcoma, Lipoma, Lipoma like Liposarcoma

INTRODUCTION

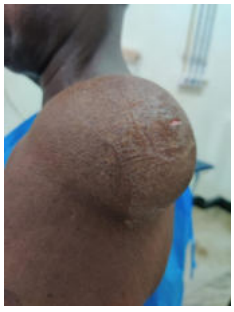
Liposarcoma is a malignancy of adipocytes. It normally appears as a slowly enlarging, painless, non ulcerated, submucosal mass in middle aged persons. Some lesions may grow rapidly and become ulcerated early. Liposarcoma occurs in three main biologic forms 1. well-differentiated liposarcoma 2. Myxoid and/or Round cell 3. Pleomorphic. Most frequently liposarcomas arise de-novo. The development of a liposarcoma from a pre existing benign lipoma is rare . Management is usually by wide excision. Local radiation and chemotherapy may be necessary for high grade lesions.

CASE REPORT

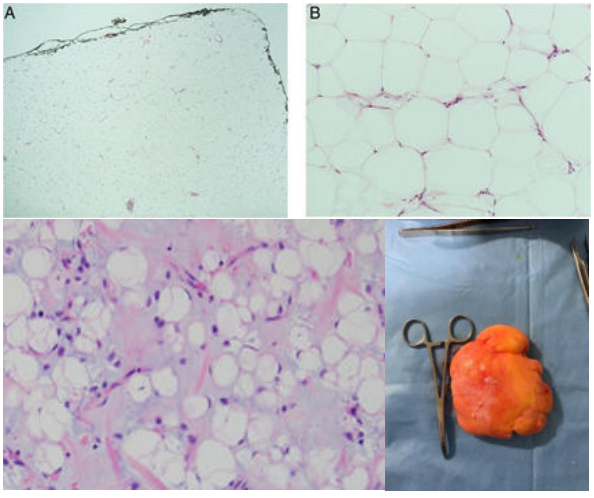
A 55 year old man presented to the OPD with complaint of swelling over the right shoulder for 15 years.It was insidious in onset, and gradually progressed in size for the past 5 months. It was not associated with pain until the last 2 months. There was history of pain during movement of the right shoulder joint.

FNAC done previously had shown an atypical lipomatous tumor; which he initially ignored as the was no pain or discomfort or difficulty in movement of the shoulder joint. He subsequently consulted a doctor due to increase in size and complaints of pain.

On examination , a single ovoid swelling of size 18X11 cm was noted over the Right shoulder . The surface was smooth, with well defined margins . The consistency was soft to firm and the swelling was freely mobile over the subcutaneous plane. Slip sign was negative. There was no fluctuation or transillumination.



MRI of left shoulder showed large ovoid liposarcoma in subcutaneous plane in left shoulder measuring 18X15 cm overlying the left trapezius, left acromioclavicular joint with multiple thick internal septations seen with focal nodules and a small in tramuscular component measuring16X11mm in posterior aspect of deltoid. Patient was managed surgically. Elliptical incision was made over the mass and skin flaps were raised . Wide local excision of the tumour was done and muscles , vessels and nerves preserved. Homoeostasis achieved . Post operative period was uneventful.



Excision and Biopsy - Tumour contains sheets of adipocytes with lipoblasts with atypical nuclei. Features suggestive of well differentiated lipoma like liposar-coma.

On follow up for the next 1 year, patient had no signs of local recurrence and had a healthy scar.

DISCUSSION

Liposarcomas are the second most common soft tissue sarcoma following malig-nant fibrous histiocytoma. They comprise approximately 45% of all retroperito-neal and 24% of all extremity sarcomas.It is defined as a malignant mesenchymal neoplasm that is composed of lipogenic tissue with a varying degree of cellular atypia, possibly including non lipogenic sarcoma cells . The World Health Organ-isation classification of soft tissue tumours has 5 categories of liposarcomas :

1. Well Differentiated
2. Dedifferentiated
3. Myxoid
4. Round Cell
5. Pleomorphic

Liposarcoma usually occurs in deep seated connective tissue spaces. An abnormality of band 12q13 has been associated with development of liposarcomas and the most common translocation being FUS-CHOP fusion gene. They usually occur as a well circumscribed palpable mass as large as 10cm in diameterPrognosis is affected by the histological type and in general survival for extremity tumours is

favourable. The well differentiated type has a 100% 5 year survival rate however they may recur locally after surgical excision. While lipomas can be clinically diagnosed and transformation of lipomas into liposarcoma is rare, a differential diagnosis of liposarcoma must be considered in a firm, painless, enlarging subcutaneous lesion. This is an indication for biopsy.

MRI is a useful imaging modality in distinguishing lipomas versus liposarcomas.

Well differentiated liposarcomas are also known as atypical lipomas when they occur in the extremeties. They resemble lipomas on both CT and MR and are difficult to differentiate from a lipoma.

Findings indicative of liposarcoma on MRI include male sex, advanced age, thick septa (generally greater than 2mm), larger size (>10cm) nodularity, reduced fat composition and invasion of underlying tissue.[3] Histologically, main features of liposarcomas include immature adipocytes and multivacuolation with indented and hyperchromatic nuclei.

Treatment is usually via wide surgical excision in case of atypical liposarcomas to prevent recurrence and dedifferentiation. Adjuvant radiotherapy and chemotherapy may be necessary for high grade lesions.

CONCLUSION

Malignant transformation of lipomas into liposarcoma is rare . There have been reports of lipoma like liposarcomas which add to the diagnostic difficulty .Comprehensive clinical examination combined with pre-operative radiographic imaging is vital in such cases to help differentiate benign fatty masses from potential liposarcomas. The potential for sarcomatous change in suspicious lipomas should be borne in mind.

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