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# A RARE CASE OF LIPOSARCOMA OF THE FOREARM: PRESENTED AS ACUTE LIMB, DIAGNOSTIC CHALLENGES AND SURGICAL MANAGEMENT

General Surgery

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## ABSTRACT

**Introduction:** Liposarcomas are malignant tumors of adipocytic origin, most often arising in deep soft tissues such as the thigh or retroperitoneum. Their occurrence in the forearm is uncommon and may be clinically indistinguishable from benign lipomas. **Case Report:** A 45-year-old male presented with a gradually enlarging, painless swelling on the volar aspect of his right forearm. MRI revealed a lipomatous lesion with thickened septa. Histopathological examination confirmed a well-differentiated liposarcoma. A wide local excision was performed, with negative margins. No recurrence was observed after one year. **Conclusion:** Forearm liposarcomas are rare but should be considered in cases of atypical soft tissue masses. MRI and histopathology are crucial for diagnosis, while complete surgical excision is essential for long-term control.

## KEYWORDS

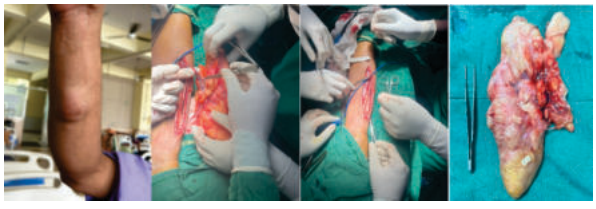
Liposarcoma, Forearm mass, Soft tissue sarcoma, Surgical excision, Case report

## INTRODUCTION

Liposarcomas are one of the most frequent soft tissue sarcomas in adults, constituting approximately 20% of all soft tissue malignancies [1]. They are most commonly located in the thigh or retroperitoneum. However, primary tumors in the forearm are rare and may be mistaken for benign masses. Accurate and timely diagnosis is vital to ensure appropriate treatment and prevent recurrence.

### Case Report

A 45-year-old male reported to the surgical outpatient department with complaints of acute onset pain in the left forearm for the past 5 hours. There was no preceding trauma, systemic symptoms, or neurological complaints. On examination, a 6 x 4 cm firm, mobile, and tender mass was palpable on the volar aspect of the proximal forearm. The overlying skin was tense, and tenderness was present.



### Investigations

MRI of the forearm demonstrated a well-defined hyperintense lesion on T1-weighted images, with thickened internal septations. These findings suggested a lipomatous tumor with atypical features. There was no evidence of bony or neurovascular involvement.

### Management

An excisional biopsy was carried out. Intraoperatively, the lesion was encapsulated and located beneath the fascial plane, not adherent to nearby structures. Histological evaluation showed mature adipocytes along with fibrous septae containing atypical stromal cells, consistent with a diagnosis of well-differentiated liposarcoma. Surgical margins were free of tumor.

### Postoperative Course

The postoperative period was uneventful. No adjuvant therapy was recommended. The patient remained recurrence-free and functionally normal at the 12-month follow-up.

## DISCUSSION

Liposarcomas are classified into five histological subtypes: well-differentiated, dedifferentiated, myxoid, pleomorphic, and mixed-type [2]. The well-differentiated variant has low metastatic potential but may recur locally if incompletely excised [3]. Forearm liposarcomas can mimic benign lipomas in their clinical presentation, which may delay diagnosis.

MRI is helpful in distinguishing liposarcomas from benign lipomas, particularly when features like thick septations or nodularity are present [4]. However, definitive diagnosis relies on histological features, and molecular studies such as MDM2 amplification may be used to differentiate from benign entities [5].

Wide surgical excision with negative margins is the primary treatment modality. Given the potential for local recurrence, long-term follow-up is advised.

## CONCLUSION

Although uncommon, liposarcoma should be considered in patients presenting with atypical soft tissue masses of the forearm. Imaging and histopathological evaluation are key to diagnosis, and surgical excision remains the cornerstone of management.

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