



## A CASE REPORT OF LIPOMA OF ANTERIOR TRIANGLE OF NECK

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**ABSTRACT** **Introduction:** A lipoma arising in the anterior triangle region of the neck is an uncommon presentation of a non-malignant tumor originating from mesenchymal tissue in the head and neck region. Although lipomas are frequently encountered in clinical practice, only a small percentage arise in the cervical area, and involvement of the anterior triangle is particularly rare. Their proximity to vital neurovascular structures makes accurate diagnosis and careful surgical planning important. In this case, the patient had a swelling in the upper anterior triangle of the neck that had gradually enlarged over six months. **Case Report and Discussion:** The swelling was soft, mobile, and subcutaneous on examination, with no associated skin changes or neurological deficits. Ultrasonography and contrast-enhanced computed tomography demonstrated a clearly defined with distinct margins, homogenous fat density lesion confined to the anterior triangle without deep tissue infiltration. The lesion was removed via a transverse incision placed along a natural neck crease, ensuring preservation of adjacent neurovascular structures. Recovery was smooth and cosmetically satisfactory. Histopathological examination confirmed a benign mature lipoma enclosed within a delicate fibrous capsule and without atypical features. At six months of follow up, the patient remained asymptomatic with no signs of the lesion returning. **Conclusion:** A lipoma occurring in the anterior triangle region, though rare, should be included in the list of possible alternative diagnosis of anterior neck swellings, as imaging aids in distinguishing them from other soft tissue lesions and in ruling out liposarcoma. Complete excision remains the treatment of choice with excellent prognosis.

**KEYWORDS :** Anterior Triangle of Neck ; Cervical Lipoma; Gaint Neck Lipoma; Head and Neck Tumor; Case Report

**INTRODUCTION**

Lipomas are benign mesenchymal tumors composed of mature adipocytes and represent one of the most frequently encountered soft tissue neoplasms in clinical practice. Although widely distributed throughout the body, only a small percentage develop in the head and neck region, where they tend to arise predominantly in the posterior triangle.

Occurrence within the anterior triangle is distinctly uncommon, making diagnosis and management more challenging. The lesions typically present as slow growing, painless swellings and may remain asymptomatic for prolonged periods, often becoming clinically significant only when they attain considerable size or cause deformity.

The differential diagnosis of an anterior neck mass is broad and includes congenital cysts, lymphadenopathy, thyroid lesions, salivary gland pathologies, and soft tissue tumors of varying origins. Hence, thorough evaluation is essential to determine the nature of the swelling.

Imaging modalities such as ultrasonography and computed tomography (CT) are valuable for identifying fat-density lesions, defining their anatomical boundaries, and differentiating them from deep seated lipomas or liposarcomas. Complete surgical excision remains the treatment of choice and is associated with excellent prognosis and minimal recurrence when the capsule is removed intact.

Because anterior triangle lipomas are relatively rare, individual case reports provide important insights into their clinical characteristics, radiological features, surgical challenges, and long term outcomes. The present report adds to existing literature by describing a case of anterior triangle lipoma in a young adult male, along with relevant discussion on diagnostic and therapeutic considerations.



Fig.1. Lipoma Over Anterior Triangle of Neck

**Case Report**

A 31-year-old male presented with a gradually progressive, painless swelling in the upper portion of the anterior triangle of the neck for a duration of six months. Physical examination revealed a soft, mobile, well-defined mass without tenderness, skin changes, or neurological deficits. There was no history of trauma, infection, dysphagia, dyspnea or voice alteration. Ultrasonography demonstrated a well-encapsulated, oval shaped lesion with internal linear strands (fibrin septal) in the subcutaneous plane in the right submandibular region extending to midline of neck.

Fine needle aspiration cytology indicated a benign adipose tissue lesion consistent with lipoma. Considering the clinical presentation and imaging features, a preliminary diagnosis of lipoma was established. Based on the clinical and radiological findings, a provisional diagnosis of lipoma was made.



Fig.2. Visualization of Lipoma After Giving Neck Incision



Fig.3. Lipoma After Excision

The lesion was removed via a transverse incision placed along a natural neck crease. Meticulous dissection was carried out to separate the mass from adjacent tissues while safeguarding nearby blood vessels and nerves. The lesion was removed in total along with its thin fibrous capsule. Gross examination revealed a lobulated yellow mass consistent with a lipomatous tumor.

Histopathological examination confirmed mature adipose tissue arranged in lobules, with no atypia or features suggestive of liposarcoma. The postoperative period was uneventful. At six month follow up, the patient continued to be symptom-free with no evidence of recurrence.

## DISCUSSION

Lipomas of the anterior triangle of the neck are infrequently encountered in clinical practice and demand careful assessment because of their anatomical position and the broad range of conditions they may resemble. This distribution pattern is attributed to differences in the concentration of adipose tissue in the cervical fascial planes.

Although benign, their proximity to vital neurovascular structures necessitates careful clinical assessment and appropriate imaging to establish the diagnosis while ruling out more serious or malignant conditions. Ultrasonography is often the first modality used, identifying the lesion echogenic pattern of fatty tissue. CT imaging further delineates the lesion and is useful for preoperative planning. MRI may be indicated in atypical or deep seated lesions, especially when differentiation from well-defined liposarcoma is required.

Total removal of the mass along with its capsule, remains the definitive treatment and provides excellent functional and cosmetic outcomes with minimal risk of recurrence. This case reinforces the importance of considering lipoma as a differential diagnosis for anterior neck swellings and highlights the effectiveness of timely surgical management.

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