

## Case Report

# Giant lipoma in front of the neck presenting as thyroid neoplasm: A rare case

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## ABSTRACT

Lipoma is the most common benign soft tissue mesenchymal tumor of adipose tissue. Their occurrence in head and neck is relatively rare and is most frequently located in posterior subcutaneous neck region. In this article, we report the giant mass in front of the neck in 65-year-old woman measuring 32 cm × 30 cm, which was increasing slowly since 18 years causing pressure symptoms like dysphagia, dyspnea. It was clinically diagnosed as thyroid neoplasm and confirmed by histopathological examination.

**Keywords:** Giant lipoma, head and neck, lipoma, lesions in neck

## INTRODUCTION

Lipomas are the most common benign soft tissue mesenchymal tumor originating from adipose tissue. The lesion is usually small, subcutaneous, circumscribed and asymptomatic with 15-20% of the cases involving head and posterior neck region.<sup>1</sup> Rarely they develop in front of the neck, and very rarely they reach gigantic size (>10 cm) to call it a giant lipoma and can invade surrounding tissue. There is limited information about head and neck lipomas in literature; most data is in the form of case report.<sup>2</sup> A large neck mass with rapid growth rate should always raise the possibility of malignancy. Here in we are presenting interesting and rare case of giant lipoma in front of the neck which clinically was diagnosed as thyroid neoplasm. To the best of our knowledge, such large size of a lipoma in front of the neck is a first case in the literature to be reported.

## CASE REPORT

A 65-year-old female presented with a large mass in front of the neck with difficulty in swallowing and breathing along with backache. The mass was slow growing since 18 years (Figure 1).

## Examination

On local examination, the mass was non-tender, soft, lobulated measured 32 cm × 30 cm. Skin was free from

deep structures. No lymph node was palpable in cervical and supraclavicular region. All other systemic examination was normal as detected.

## Investigation

The complete blood count, blood chemistry profile, thyroid function tests were within normal limit. Ultrasonography and X-ray showed heterogeneous mass in the thyroid so clinically. Diagnosed as thyroid malignancy.

## Histopathology

Grossly the mass was measured 32 cm × 30 cm × 19 cm, lobulated, partially encapsulated and weighing 9.2 kg. Cut surface was soft, yellowish greasy separated by fine fibrous trabeculae (Figure 2a). Multiple sections were taken including capsule. No thyroid tissue was identified. All sections were stained by hematoxylin and eosin stain and microscopically revealed mature adipose tissue surrounded by thin connective tissue capsule in all sections (Figure 2b). The final diagnosis of lipoma was made. After the removal of the mass, all the symptoms, which had been provoked by compression, disappeared.

## DISCUSSION

Lipoma is the most common benign neoplasm of adipose tissue occurs as single or multiple subcutaneous nodules.

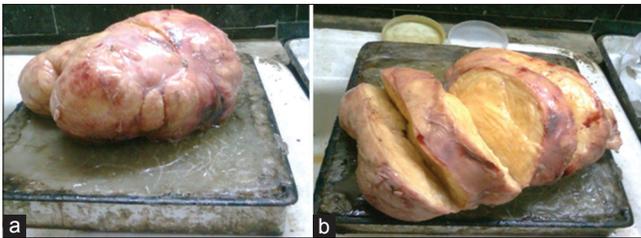
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**Figure 1:** Photograph of 65-year-old female who presented with a 18 year history of slow growing huge swelling in front of the neck



**Figure 2:** (a) Gross photograph of the cut section of lipoma showing greasy and yellowish appearance measuring 32 cm × 30 cm × 19 cm. (b) Microphotograph of tumor mass revealing mature adipose tissue (hematoxylin and eosin stain ×100)

The lipoma is usually asymptomatic; small and solitary (80%) especially in women and in obese individuals (3) however multiple lipomas are more common in males. Common location for lipoma are the back, arm, shoulder, anterior chest wall, thigh, abdominal wall, legs, forehead and face in decreasing order of frequency, Lipoma rarely occur in head and neck and of those, most common location is posterior neck.<sup>3-5</sup> Lipoma may be located in all parts of the body and can be confused clinically with soft tissue mass.<sup>3</sup> Rarely they develop in the anterior neck, infra-temporal fossa and in or around the oral cavity, pharynx, larynx and parotid gland.<sup>6</sup> Most lipomas are <5 cm but there are very rare lipomas, which may grow larger and called giant lipoma. Peak incidence of a lipoma formation is noted in 5<sup>th</sup> and 6<sup>th</sup> decade of life.

Giant lipoma always raises suspicion of malignancy. In this case, lipoma in front of the neck was since 18 s. The size was much larger than the size observed by Cutilli *et al.* and Medina *et al.* in their case report that is 9 cm × 4 cm × 2.2 cm and 15 cm × 12 cm, respectively. Due to large size of lipoma pressure symptom has been developed in the patient such as dysphagia, dyspnoea.

Lipoma may rarely exhibit a malignant transformation to a liposarcoma. Unlike liposarcoma, lipoma does not have atypical lipoblast and branching capillary vessels and consist of mature fat. Diagnostic lipoblast has an eccentric, hyperchromatic nucleus, which is indented or scalloped by presence of one or more fat vacuoles.<sup>7</sup>

It is important that these lipoblast occur in appropriate- histological background because similar cells can be seen in non-lipomatous lesions (e.g., silicon reactions) and are now accepted as a routine finding in pleomorphic lipoma, chondroid lipoma, lipoblastoma and less of spindle cell lipoma.<sup>8</sup> Failure to apply strict criteria in identifying such cells and in noting the milieu in which they occur can lead to over diagnosis of liposarcoma.

Lipomas are classified as classic, angiolipoma, fibrolipoma, spindle cell lipoma, pleomorphic lipoma, hibernomas, myelolipoma, atypical lipomas with newer variant of adenolipoma depending on their microscopic appearance. Recent cytogenetic studies have reaffirmed the separate nature of many of the variants of lipoma. Solitary lipomas commonly have a rearrangement of chromosome 12, a finding not encountered in a multiple lipoma or in spindle cell lipoma.

## CONCLUSION

Giant lipoma is rare in front of the neck. Lipoma should always be considered in the differential diagnosis of the lesion around neck.

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## PEER REVIEW

Double-Blinded externally peer reviewed.

## CONFLICTS OF INTEREST

Nil

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