


# A giant thoraco abdominal wall lipoma in a child

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## Abstract

Lipomas are benign mesenchymatous soft tissue tumours occurring mostly in the subcutaneous areas of the body. They are usually asymptomatic painless swellings, presenting with a large size in adults. Giant lipomas are rarely reported in adults as well as in children. A case of giant lateral thoracoabdominal wall lipoma in a child has been reported here.

## Keywords

Giant lipoma, chest wall, benign tumour

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## Highlights

### What is known?

Lipomas are benign mesenchymatous soft tissue tumours occurring mostly in the subcutaneous areas of the body.

Since they are asymptomatic painless swellings, can present with a large size in adults.

### What is unknown?

As per definition ‘Giant Lipoma’ is, when its size is more than 10 cm or its weight more than 1 kg.

Giant thoracoabdominal wall lipoma has not been reported in children and adults so far in the literature.

## Introduction

Lipomas constitute 16% of all benign mesenchymal neoplasms, most commonly occurring in adults, less than 5% occur in children. Usually asymptomatic and are able to grow to large size and hence might present late due to compression, pressure or cosmetic disfigurement. Although any region of the body can be affected, the head, neck, shoulders and backs are affected more commonly. As per definition ‘Giant Lipoma’ is, when its size is more than 10 cm or its weight more than 1kg.<sup>1,2</sup>

## Case report

A 6 years old male child born by full term vaginal delivery with a birth weight of 2.25 kg, presented with a huge asymptomatic swelling over the left lateral chest wall since 6 years. Mother noticed a small asymptomatic lump on back of the left shoulder at 1 month of age, which gradually progressed to present size of around 20 cm × 20 cm × 17 cm. Child was asymptomatic and had grown well with a weight of 15.6 kg without any other swellings or syndromes. His systemic and general physical examination was normal. The giant ellipsoidal non tender well demarcated swelling, having soft to firm in consistency with slight mobility was located on the left lateral thoracoabdominal wall extending superiorly from the left axilla to left upper half of lateral abdominal wall inferiorly, posteriorly 2 cm off the spine and extending anteriorly to anterior axillary line (Figure 1(a) and (b)). Chest X-ray showed ground glass opacity over left thoracoabdominal wall (Figure 1(c)); ultrasonography showed ill defined heteroechoic mass in left lateral thoraco

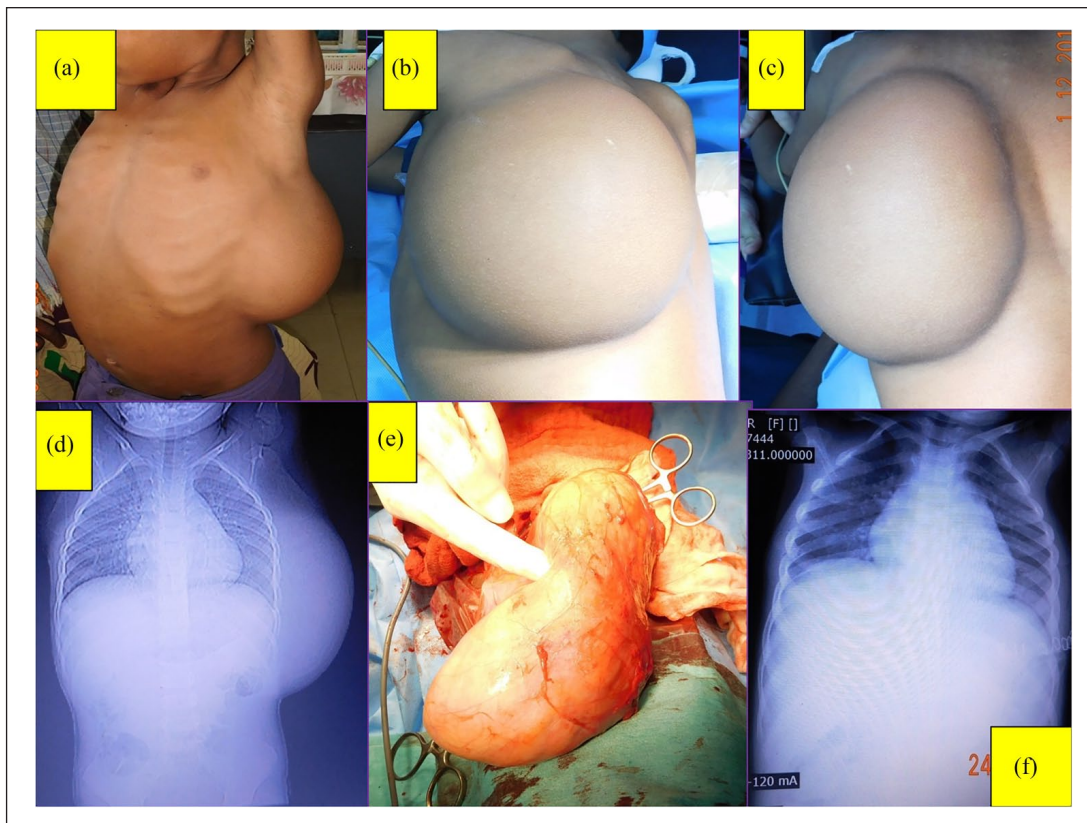
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**Figure 1.** (a), (b) and (c) clinical appearance of left lateral chest wall giant lipoma, (d) pre operative chest radiography, (e) intra operative image of the giant lipoma, and (f) post operative chest radiography.

abdominal wall in the subcutaneous plane  $21\text{ cm} \times 18\text{ cm} \times 16\text{ cm}$  without any internal vascularity, calcification or necrosis. Computer enhanced chest tomography revealed a well encapsulated giant lipoma with multiple septations without calcifications, necrosis or rib/intra pleural extension over the left lateral thoracoabdominal wall, having an average of 165.87 Hounsfield units (HU) with an area occupying an average area of 108.17 sqcm (Figure 2(g) and (h); Figure 1(d)).

Radical excision of the mass was done under general anaesthesia without prior biopsy. Intra operatively the mass was located below the muscular plane, just above the rib cage not infiltrating into the ribs, intercostals muscles or pleura; could be easily excised along with its capsule intact uneventfully (Figure 1(e)). Muscles were closed after keeping a drain. Post operatively feeds were started same day and drain removed next day. Mass weighted 1.5kg with histology showing mature adipocytes without nuclear atypia arranged in lobules separated by fibrous septa (Figure 1(f)). Child is doing well after 2 years of follow up without any deformity.

## Discussion

Lipomas are benign tumours of adipocytes (fat cells); mostly singular, however may be multiple. They have a relatively static growth after initial growth period. Giant lipomas are infrequently found in adults moreover in children over the chest wall. Lipomas that are greater

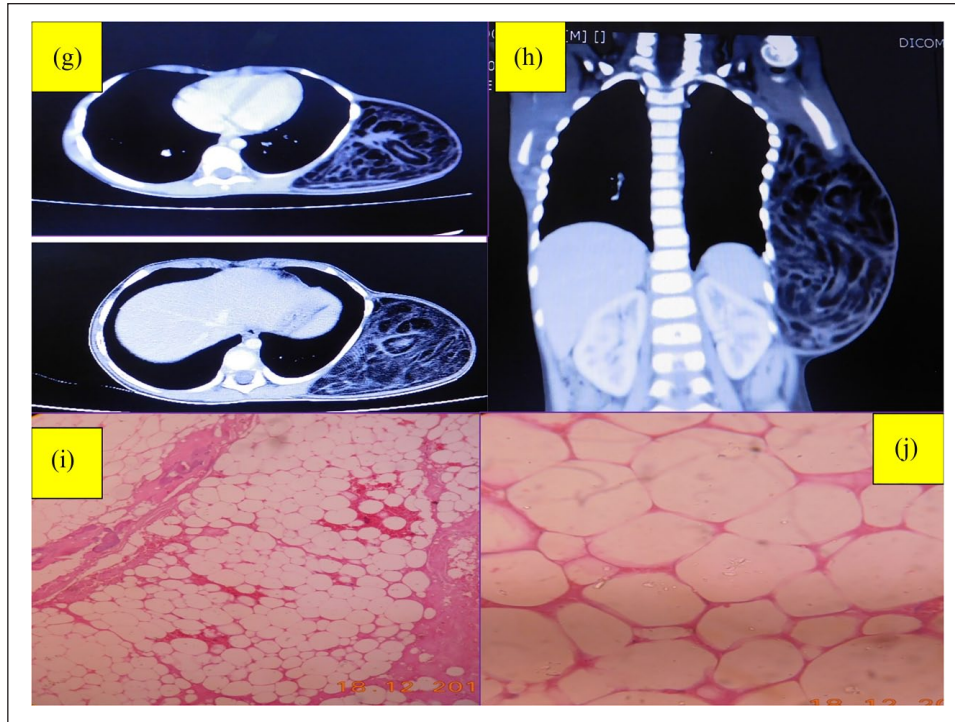
than 10 cm in width or more than 1000 g in weight are called giant lipomas and are rarely seen over the thoraco-abdominal wall. Lipomas can arise spontaneously or as part of a syndrome such as hereditary multiple lipomatosis, adiposis dolorosa, Gardner's syndrome and Madelung's disease.<sup>1,2</sup>

The diagnosis is mainly clinical in 85% of cases. However to know the characteristic nature, and for proper diagnosis of these giant lipomas, the imaging modalities like ultrasonography, computer tomography scan or magnetic resonance imaging are indicated. Surgical excision is the treatment of choice. The outcome of resection of lipomas is usually good; however recurrence rates of 1%–5% have been reported due to incomplete resection of the capsule.<sup>1,3,4</sup>

The paucity of literature on giant lipomas, makes the local and global incidence largely unknown in adults as well as in children.

Author had a unique case of asymptomatic left lateral thoracoabdominal wall giant lipoma, weighing 1.5 kg with a volume of  $2268\text{ cm}^3$ , having maximum length of 21 cm was radically excised with its histopathology showing features of benign lipoma. The tumour body ratio was 0.09 contributing to 9.6% of the body weight. Tumour was looking as if the child is wearing a 'vanity bag' on the left side.

As per author's literature search, six cases of giant chest wall lipomas have been reported in adults, which were



**Figure 2.** (g) and (h) CECT Chest- (g) axial section and (h) coronal section, showing well encapsulated giant lipoma with multiple septations without calcifications/necrosis or rib / intra pleural extension; on left lateral chest wall, (i) and (j)— Histo pathological images, (i) low power field (10X) showing mature adipocytes separated by fibrous tissue septae containing capillaries and inflammatory cells, and (j) high power field (40X)-showing mature white adipocytes with flattened eccentric nuclei with thinned out cytoplasm.

managed by excision and liposuction. Two cases have been reported in children; one in a 2.5 years female and another in a 3 years male child by Aghajanzadeh et al.<sup>4</sup> and Singal et al.<sup>5</sup> respectively.

Author is reporting the first ever case of giant left lateral thoracoabdominal wall giant lipoma managed successfully in a tertiary care paediatric centre. Child is doing well without infection, recurrence or cosmetic disfigurement and has joined back school.

#### Author's note

Author is sharing her own experience of such a rare surgically challenging case which was successfully managed and hence writing this article, unique in the literature.

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#### Author contribution

J.S.A.: concept and designed the study, collected the data, analysed data and drafted the manuscript; and corrected draft.

#### Declaration of conflicting interests

The author declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

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#### Ethical approval

Taken from IGICH IRB committee (igich3456).

#### Informed consent

Taken from parents verbal and written.

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