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Giant pedunculated anterior chest wall lipoma in a 13 year old Nigerian girl: an unusual presentation

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Abstract
Lipomas are the most frequent mesenchymal benign soft tissue tumours, which may be localized in any region of the body. They are uncommonly sited on the chest wall. Rare variants like a giant pedunculated lipoma in older children could present with psycho-social components.
We report a case of a 13 year old Nigerian middle belt teenage girl of Tiv ethnic extraction who had a giant pedunculated lipoma of the left infra-clavicular region and paused her education because of stigmatization by her peers in school. Her parents were subsistent farmers who could not afford her treatment. She was treated by a free rural surgical team on their visit to her community. She had excision under local anaesthesia, was counselled and eventually returned to school.

Keywords: giant pedunculated lipoma, anterior chest wall, teenage girl, "lipoma ratio"

Introduction
Lipomas are the most common soft tissue tumors, which are benign, of mesenchymal origin, composed of mature lipocytes and may be localized in any region of the body [1-3]. These tumours are said to be giant when their widest diameter is more than 10cm and are most often asymptomatic except those occurring within cavities or spaces that could twist causing pain or obstruction to adjacent hollow structures like the gastrointestinal gut [3-6]. There are other associated psycho-social components of the presentation, especially in older children or teenagers that are commonly missed except when actively looked for.

Case report
A 13 year old Tiv girl was brought to the surgical team of a free medical outreach programme in Vandeikya local government, Benue State, Nigeria middle-belt with a left anterior chest wall (infra-clavicular) mass of two years duration. The mass was initially slow growing, but had rapidly increased in size over the last one year (prior to presentation) to occupy the left chest wall and shoulder. It was painless and did not inhibit the use of her left arm. There were no such masses in any other part of the body. There was no history of cough, fever or weight loss. There was no preceding trauma and no ulcer or itching over the mass.
Examination shows a young girl weighing 32kg with a globular-pedunculated, firm, multi-lobulated, non-tender mass measuring 27cm in its widest diameter (Figure 1). The mass was freely mobile and there was no bruit over it. The regional lymph nodes were not palpable. Vesicular breath sounds were heard over the lung fields. Other findings were not remarkable.
A provisional diagnosis of a giant pedunculated anterior chest wall lipoma was made. She had surgical excision of the lipoma under local anaesthesia and intra-operative blood loss was minimal. The surgical specimen weighed 1.5kg (4.7% of the patient's gross body mass) and was confirmed to be adipose in nature by histopathology studies. She was discharged the same day and recovered completely without recurrence.

Fig 1: Showing giant peduculated anterior wall lipoma

Fig 2: Showing lipoma surgical specimen

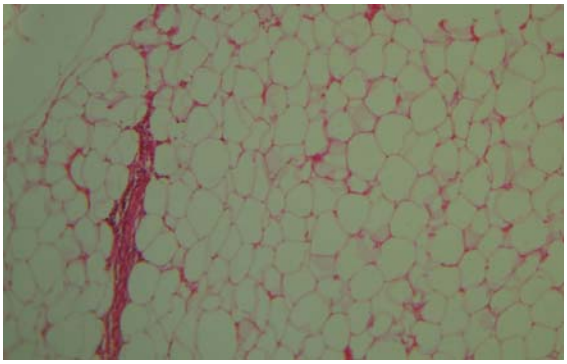

Fig 3: Showing histological features consistent with lipoma

Discussion

Chest wall benign tumours are rare and chest wall lipomas rarely reported [7]. Generally, giant lipomas are hardly ever seen over the chest wall, particularly in children [8] which makes a pedunculated giant lipoma at this site much more a rare occurrence [9]. The paucity of literature, however, makes the local and global incidence largely unknown. Lipomas occur more in females and constitute about 6% of soft tissues tumours in the paediatric population [2, 8]. This female predilection may be due to the tendency of females to mobilize fats more than their male counterparts [2].

This case of giant *pedunculated* lipoma occurring on the anterior chest wall in a teenager is perhaps the first reported case in Nigeria while several variants have been reported to cause intestinal intussusceptions and mimic acute appendicitis [5, 6].

Most lipomas are asymptomatic but few especially in the index patient may have some psycho-social components [8] The diagnosis was clinical as it is expected in 85% of cases [4] but the characteristics of benign lipomas on ultrasonography, computer tomography scan and magnetic resonance imaging have been well established for making a diagnosis [9, 10]. The visiting health team was handicapped doing any of the required investigations due to the resource-constrained environment. The index patient was also faced with social stigmatization among her peers in school and could not continue her education. She had an excision of the lipoma under local anaesthesia by the visiting team of health care professional rendering free medical and surgical treatment in their community. This was the available surgical option which is regarded as the treatment of choice, though liposuction has been done in other cases [4, 8, 10] Local anaesthesia was also the only available option.

Giant lipomas have been reported to be as large as 21cm in widest diameter and weighing 2.95kg when excised. [10] Others were, however, reported to be 29cm in their diameter and weighed 3.2kg when excised [8] the giant pedunculated lipoma in the index patient was 27cm in its widest diameter and its surgical specimen weighed 1.5kg. This surgical specimen apart from being huge was observed to be 4.7% of the patient's gross body mass. Expression of the relationship of the surgical specimen to the patient's gross body mass ("lipoma ratio") was lacking in most reports, though its significance still remains unclear now leaving room for further research. There was no recurrence and the child returned to school after counselling without further stigmatization and was said to be doing well.

Conclusion

Giant pedunculated lipoma ("lipoma ratio" of 4.7%) on the anterior chest wall is a rare presentation in the paediatric population. Such rare variants of presentation could have a psycho-social component that should also form part of the management modalities aside surgical intervention. Excision of these giant pedunculated lipomas could be done under local anaesthesia especially in resource-constrained settings.

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