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Supraclavicular neck mass in a 14 month old boy

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Supraclavicular Neck Mass in a 14-month-old Boy

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Introduction

Lipoblastoma is a rare benign tumor arising from embryonic fat cells in children younger than 3 years of age.
They rarely present in the neck and usually do not have spindle cell appearance.

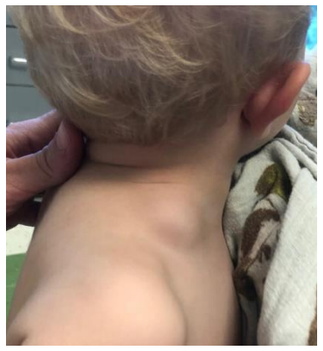

Figure 1: Patient presentation to ENT clinic

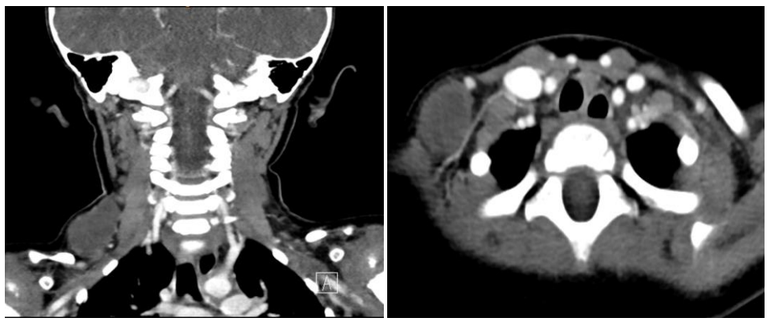

Figure 2: Coronal and axial computed tomography images showing the supraclavicular mass. The mass is lobulated and slightly hypodense. The right external jugular vein courses along the ventral aspect of the mass.

Case Description

We present the case of a 14-month-old male with 1 month history of a right supraclavicular neck mass that was enlarging gradually.

On physical exam, it was non tender, mobile with no overlying skin changes. Patient did not have any respiratory distress.
A fine needle aspirate (FNA) showed spindle cells with no mitotic activity.

A computed tomography scan showed a 2.5x2.4x2.6 cm round, mildly lobulated mass in the right supraclavicular region near the midshaft of the clavicle. The patient was taken to the operating room where a lobulated yellow/tan soft mass, with minimal adhesions to surrounding structures, was excised along with its capsule. The mass had a gelatinous consistency.

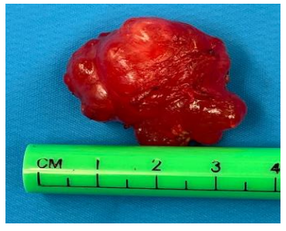

Figure 3: Pathologic specimen after excision showing a 2.5 cm mass.

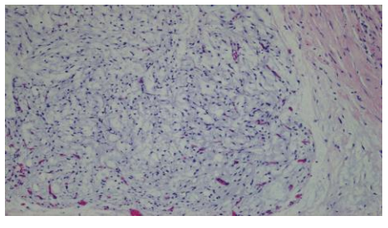

Figure 4:Medium power view showing mature and maturing adipose tissue with abundant myxoid change. (100x H&E)

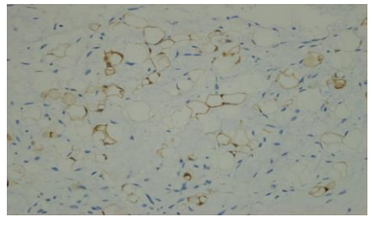

Figure 5:Positive staining in tumor cells. (200X S100 Protein IHC)

Discussion

Lipoblastomas are rare benign adipose tumors of the pediatric age group occurring mostly in children under the age of 3. They are commonly found in the extremities and the trunk however there are reports of diagnosis in the retroperitoneum, mediastinum and spine. They are less likely to present in the neck region. Adipose tumors comprise only 6% of soft tissue tumors in children, of these only 4.7% are lipoblastomas.

Histologically, they are composed of mature and immature adipocytes and lipoblasts in a plexiform capillary network with a myxoid appearance. Typically, spindle cells are not visualized on FNA making the diagnosis in our case a challenging one.

It is important to differentiate these tumors from liposarcomas that have a very different prognosis and treatment. Because of their ability to impinge on surrounding structures, excision of the neck lipoblastomas can be surgically challenging due to critical vessels and nerves in the region. Special attention should also be paid to the airway which can be compromised with increased tumor size.

Conclusion

Lipoblastoma is a rare benign tumor of the pediatric population. Lipoblastomas have excellent prognosis without a need for chemotherapy. Complete excision of the mass is usually curative. However, the need for follow up is essential as recurrence rates as high as 47% have been reported.

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