CASE REPORT

OMENTAL LIPOBLASTOMA

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Lipoblastoma is a rare benign tumour of embryonal fat that occurs almost exclusively in infants and children. It has an excellent prognosis despite its potential to local invasion and rapid growth. Asymptomatic abdominal mass, progressive abdominal distension and intraperitoneal radiolucent fat density mass on computed tomography are the main diagnostic criteria for omental lipoblastoma. This tumour presents in two forms: a localized well-circumscribed lesion (lipoblastoma) or a multicentric type (lipoblastomatosis). Treatment is surgical excision. An unusual case of omental lipoblastoma in a 2-year-old girl is presented in this report.

Keywords: Lipoblastoma, omental tumour, total excision.

INTRODUCTION

Lipoblastoma is an uncommon, benign mesenchymal tumour with an excellent prognosis. It occurs primarily in infants and children under the age of 3 years.[1,2] Intraperitoneal lipoblastoma is extremely rare.[3] We report a case of omental lipoblastoma in a 2-year-old girl, which was treated successfully by total excision.

CASE REPORT

A 2-year-old girl was admitted with a large abdominal mass and progressive abdominal distension within last month. She did not have any associate complaints. The physical examination showed a markedly protuberant abdomen with an asymptomatic, round, right-sided abdominal mass. Results of laboratory tests (including haematologic and biochemical profile, urinalysis, alpha-fetoprotein, and ß-human chorionic gonadotropin) were all normal. The ultrasound examination showed normal kidneys, liver and pancreas, and a unilocular mass of uncertain origin. A computed tomography (CT) was done and showed a large hypodense intraperitoneal fat density mass that was well-capsulated. It appeared to have remarkable mass effect upon the inferior surface of liver and displacing bowel loops to left (Figure-1). During laparotomy, a smooth well-encapsulated mass (15×12×6 Cm) was found to arise from greater omentum (Figure-2). Complete excision of the mass was performed. The pathological examination showed 486.5 gm. mass that appeared lipomatous when bisected. The microscopic examination showed a well-encapsulated lesion with interior lipoblast and lipocytes. The result of fat stain was positive. Pathologically, the tumour was diagnosed as lipoblastoma. The post operative period was uneventful, and the patient was discharged on fifth post operative day. During follow-up examinations and radiological evaluation, no recurrence was observed in a 16-month period, and the child was found to be in a good health.

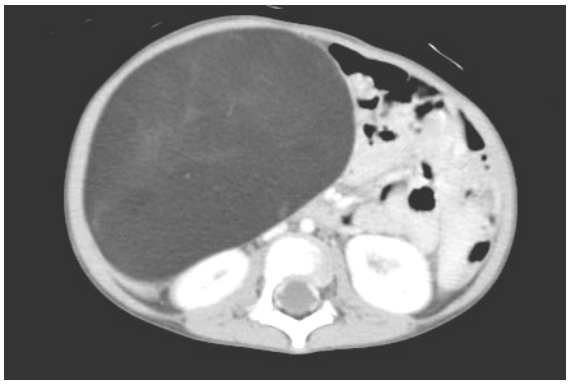

Figure-1: CT scan shows a large intraperitoneal fat density mass.

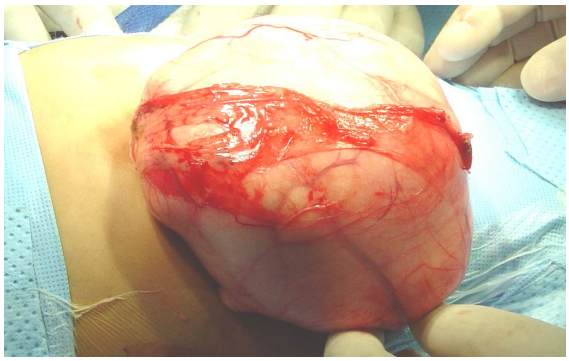

Figure-2: Mass at exploration.

DISCUSSION

Lipoblastoma is a developmental disorder of embryonal fat that might manifest at birth or appear later in childhood. This very rare tumour is almost exclusively found in children and occurs mainly under the age of 3 years, although it has been reported in a 14-year-old boy.[4]

Two clinicopathological types of lipoblastoma have been described, circumscribed and diffuse.[4,5] The circumscribed type is the most common. It is well-capsulated, superficial and may

mimic a lipoma. The diffuse type (lipoblastomatosis) is deeper with infiltrative growth pattern. The exact pathogenesis of this tumour has not been well established. Gaffney[6] suggested a close relationship of lipoblastomatosis to human foetal 'white' adipose tissue. Recently, cytogenetic abnormalities have been identified in lipomatous tumours. A distinctive clonal karyotypic abnormality involving chromosome 8q was shown in lipoblastoma, whereas a distinctive translocation t (12;6) was observed in myxoid liposarcoma.[3,7] Lipoblastomas are usually located in extremities. In fact, 72% of the cases reported by Chung and Enzinger[1] and 36% of those reported by Mentez *et al*[8] were located in the extremities. Intra-peritoneal lipoblastoma (as our case) is extremely rare. Very few cases of omental lipoblastoma have been reported in the children.[3]

A lipoblastoma usually is asymptomatic. When symptoms are present, they are provoked by the size and location of the mass. Children with intra-peritoneal lipoblastoma present with symptomless progressive abdominal distension and mobile abdominal mass. Imaging has been used pre-operatively to assess the lesion. CT is very useful because it is not only demonstrated the limits of the mass but also shows Hounsfield unit density of the mass, which in the case of lipoblastoma is consistent with fat. Reports of the magnetic resonance imaging (MRI) appearance of lipoblastoma in children are limited.

There is an unchallenged general agreement for the treatment of lipoblastoma with the tendency to grow to large proportions and to local invasion, all investigators recommend excision.[5,9] Excision should be as complete as possible, but not mutilating. Moreover, no spontaneous resolutions or reductions of lipoblastoma have been reported, and a recurrence rate of 14% and 25% are reported in cases of incomplete excision.[1,2,9] A 12-month period without recurrence is essentially curative.[2,10]

In our case, complete surgical excision was managed and recurrence has not been found in the follow-up examination of 16-month period.

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