Giant Fibrolipoma Extending Throughout a Whole Extremity: A Rare Child Case Report

Ekstremite Boyunca Uzanım Gösteren Dev Fibrolipom: Nadir Bir Çocuk Olgu Sunumu

Extremity Giant Fibrolipoma in Child

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Özet

Doğumsal olarak asimetrik büyüklükte alt ekstremiteleri olan 4 yaşında bir erkek hastayı sunmayı amaçladık. Olgunun doğum sonrasından itibaren yapılan radyolojik değerlendirmesinde, sol alt ekstremitesinde ekstremitenin yaş arttıkça olan büyümesine eşlik eden ve büyük oranda kalçadan itibaren ekstremite boyunca ayak düzeyine uzanım gösteren ve radyolojik modalitelerde geniş yağlı dokuyu işaret eden lezyon identifiye edildi. Ayak düzeyine yapılan cerrahi girişim ile eksize edilen dokunun histopatolojik değerlendirmesinde fibrolipom tanısı kondu. Bu, pediatrik hasta grubunda tüm ekstremiteyi kaplayan dev fibrolipom lezyonu olarak nadir bir durumdur.

Anahtar Kelimeler

Abstract

We present the case of a 4-year-old boy with congenitally asymmetrical lower extremities, his left being bigger than his right. The patient underwent imaging modalities after birth; a huge lipomatoid proliferation on his left thigh extended throughout the limb from the hip to the distal foot, showing isointensity with lipoid tissue. After surgical resection of his left foot, fibrolipoma was diagnosed. A giant fibrolipoma of the whole extremity occurring in a pediatric patient is a rarity.

Keywords

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Introduction

Lipomas are one of the most common benign mesenchymal soft tissue tumours of mature adipose tissue. Histologically, lipomas are classified into groups of simple lipomas, angiolipomas, angiomyolipomas, fibrolipomas, mixolipomas, lipomatosis, lipoblastoma, myelolipomas, spindle cell lipomas, hybernomas, and atypical lipomas, etc., according to the World Health Organization (WHO) classification [1]. Within these subtypes of lipomas, fibrolipoma is a rare subtype that is composed of adipose tissue separated by septations of connective tissue [2]. Fibrolipomas are commonly located subcutaneously; they can grow to huge dimensions or can become a nodular exophytic lesion. If there are cutaneous fibrolipomas caused by trauma, ischaemia and infarction lead to amorphous calcifications and fibrosis. They can also present with cartilaginous and/or osseous metaplasia [3].

In this report, we present a rare example of a giant fibrolipoma extending throughout a whole extremity in a child.

Case Report

Here we present the case of a 4-year-old boy with asymmetrical diameters of the lower extremities. His left thigh diameter had become thicker than the right one after birth. His family had also noticed that he could not wear the same shoe size, as his left foot was bigger. After clinical examination he underwent an imaging procedure. His anteroposterior radiograph (Figure 1) showed left thigh thickening, especially in the femoral side. Then on magnetic resonance (MR) images, a lesion overlying the left thigh from the hip to the foot distally was observed. On T1 and T2 weighted series (Figure 2,3), the lesion aspect showed hyperintensity; after fat saturation sequences (Figure 4), the lesion side showed signal loss, indicating lipoid tissue content. Histopathological results of a biopsy of the dorsal foot, where the lesion reached, indicated a fibrolipoma. Because of the lesion extending throughout the whole lower limb, it is named a giant fibrolipoma. Besides the radiological evaluation, laboratory tests and genetic analyses were applied but no correlation was found with any syndrome related to the lesion.

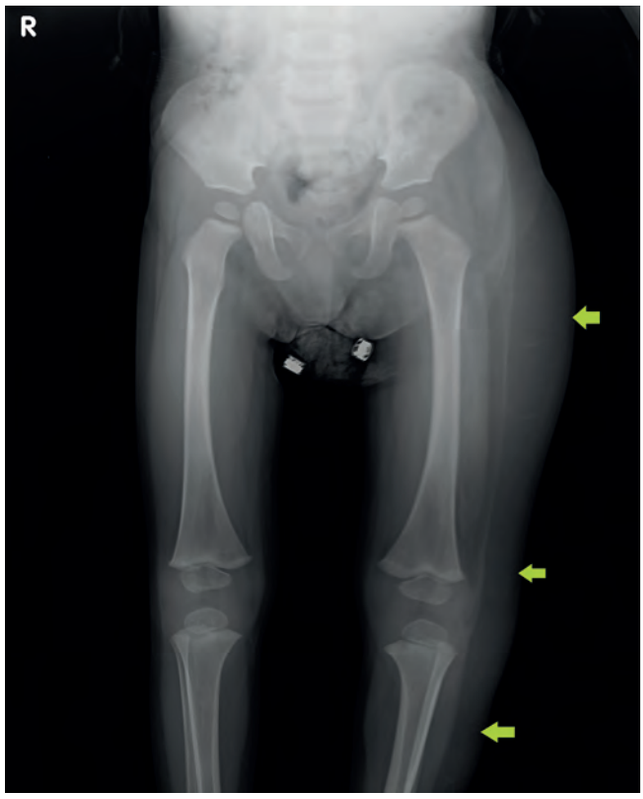


Figure 1. AP radiography image shows an increase in the left lower limb diameter, more in the upper side. Especially fatty tissue thickening in the lateral aspect.

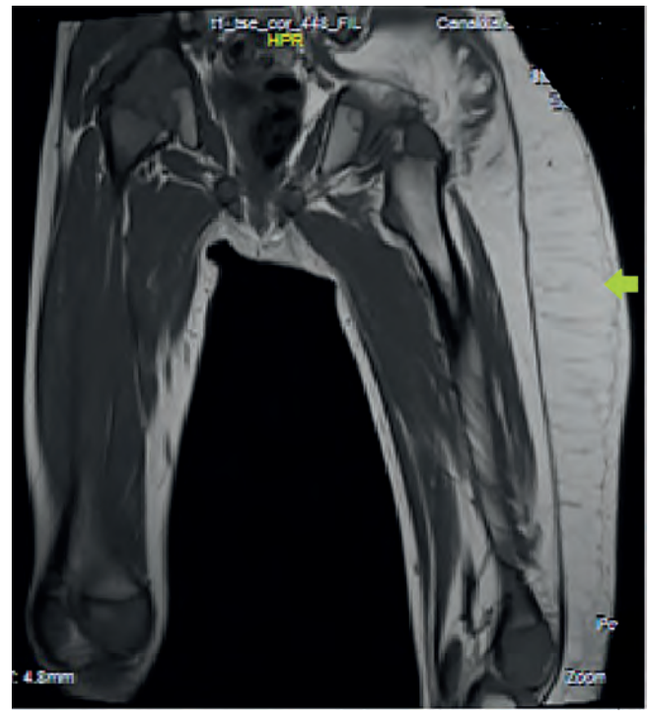


Figure 2. T1 weighted MR images; in coronal image lipoid tissue thickening seen in the lateral side of the femoral part of the thigh and in the sagittal image from foot and distal cruris.



Figure 3. Sagittal T1 weighted MR images; thickening in the fatty tissue is shown, especially over the foot.

Discussion

Lipomas are tumours composed of mature adipocytes, mesenchymal primordial fat tissue cells, in the adipose tissue; they are one of the most common benign tumours. The etiology is not well known and they can be seen as sporadic cases or as related to inheritance [4]. Fibrolipomas, rare subtypes of lipomas,

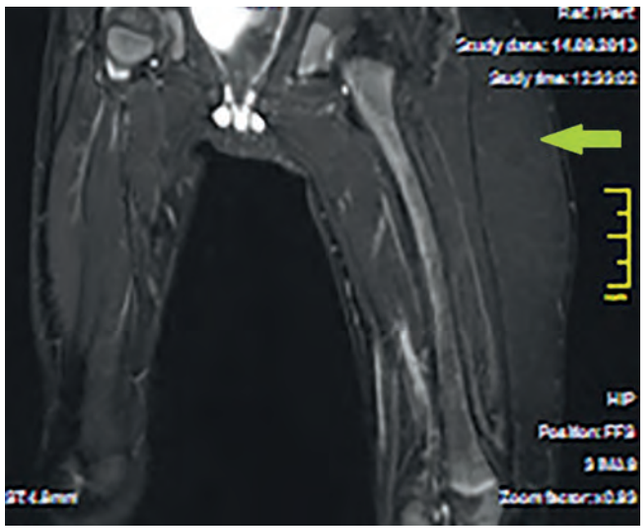


Figure 4. Coronal fat saturation proton density image shows hypointense fatty thickening in the lateral aspect of the femoral side in the left thigh.

may develop in the subcutaneous fat tissue, oral cavity, pharynx, larynx, esophagus, trachea, colon, parotid gland, and spermatic cord [5]. Although fibrolipomas may be seen anywhere in the body that contains fatty tissue, they commonly appear on the neck, trunk and upper limbs. Lower extremity localisation is not common [6]. Nerve fibrolipoma, spindle cell lipoma, subdermal fibrous hamartoma, mixolipomas, sclerosing liposarcoma, myolipoma, and nuchal fibroma should be considered in the differential diagnosis of fibrolipomas. Although they are known as benign neoplasms, the literature has reported some cases of liposarcoma, a malign transformation [7]. Giant lipomas of at least 10 cm in diameter or of a minimum weight of 1000 grams are most probably thought to be liposarcomas. The diagnosis of liposarcoma should be considered when the lesion is more than 10 cm in diameter and is growing quickly over a short period of time [8]. Histopathological criteria of invasion, mitosis, necrosis, and cellular atypia, together with the lipoblast, indicate malignancy.

The clinical presentation, treatment of choice, and the prognosis of fibrolipomas do not differ prominently from other types of lipomas. The management occasionally is surgical excision as a cure. Although they are known as benign tumours, the literature reports that there can be recurrences or malign transformations following the postoperative process [4].

In our case, postpartum macrodactyly was identified in the 2. Phalanx. During radiologic examination, fibro-adipose tissues on the plantar and dorsal areas of the foot were identified during the early postpartum period. After the child started to walk, he had difficulties with the movements of his left foot; he then underwent a surgical operation. Because of this, fibro-adipose tissue was excised from the plantar side localisation. Following this process, histopathological results of the excisional material indicated a diagnosis of fibrolipoma, a rare subtype of lipomas. Because the lesion extended throughout the whole extremity, from the hip to the distal foot, as the child grew, asymmetry in the lower extremities became more pronounced. This led clinicians in the orthopaedics department to make the decision to perform a surgical operation on his left extremity before he entered school.

As a result of this case, that of a rare giant fibrolipoma in a child, our clinical experience expanded. We want others to be aware that when lipomatoid tumours are suspected in a patient based on the clinical and radiological findings, histopathological examination should also be performed.

Competing interests

The authors declare that they have no competing interests.

References

1. Dei Tos AP. Liposarcomas: diagnostic pitfalls and new insights. Histopathology 2014;64(1):38-52.
2. Manjunatha BS, Pateel GS, Shah V. Oral fibrolipoma-a rare histological entity: report of 3 cases and review of literature. J Dent (Tehran) 2010;7(4):226-31.
3. Simsek T1, Sonmez A, Aydogdu IO, Eroglu L, Karagoz F. Giant fibrolipoma with osseous metaplasia on the thigh. J Plast Reconstr Aesthet Surg 2011;64(5):125-7.
4. Chander B, Krishna M, Thakur S, Mahajan N, Vij A, Diwakaran J. Extremely rare giant retroperitoneal fibrolipoma: a case report. J Cancer Res Ther 2012;8(2):314-6.
5. Ozturk M, Ila K, Kara A, Iseri M. Fibrolipoma of the nasal septum: report of the first case. J Otolaryngol Head Neck Surg 2013;2;42:11.
6. Zografos GC, Kouerinis I, Kalliopi P, Karmen K, Evagelos M, Androulakis G. Giant lipoma of the thigh in a patient with morbid obesity. Plast Reconstr Surg 2002;109(4):1467-8.
7. Funai MNS, Risola CF, Gomes LM, Pinto JA. Fibrolipoma of the nasal septum: An unusual pediatric case. International Journal of Pediatric Otorhinolaryngology Extra 2015;10:37–9.
8. Celik C, Karakousis CP, Moore R, Holyoke ED. Liposarcomas: prognosis and management. J Surg Oncol 1980;14(3):245-9.

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