

Deep Intramuscular Lipoma in Thigh

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ÖZET

Uylukta derin kas-ıç i lipom

Bu sunum, uyluğun nadir kas iç i yerleşimli lipomunu tanımlamaktadır. 55 yaşında kadın hasta sağ uyluğunun alt kısmında üç yıldır ilerleyici büyüyen ve ağrılı kitle şikayetiyle başvurdu. Kitle, bilgisayarlı tomografi ve manyetik rezonans görüntüleme biceps femoris kasının iç kısmında yerleşmişti. Kitle kapsüler yapıların sınırından çıkarıldı. Benign kitlelerin tanısı radyografi, bilgisayarlı tomografi ve manyetik rezonans görüntüleme ile güçlendirilebilir. Ekstremitelerin derin yerleşimli lipomları genelde uyluk ve omuzda bulunur. Bu benign kitleler, kaslar-arası ve kas-ıç i büyüyebilir ve sıklıkla tesadüfi veya takip boyunca ağrsız şişme olarak keşfedilirler.

Anahtar kelimeler: Derin-uzanımlı lipomlar, kas-ıç i lipom, uyluk, lipom

ABSTRACT

Deep intramuscular lipoma in thigh

This report describes a rare occurrence of intramuscular lipoma of the thigh. A 55 years-old woman applied to clinic with a history of progressive, painful mass in the right distal thigh for 3 years. Mass had been located in the biceps femoris muscles medially in the computerized tomography and magnetic resonance imaging sections. The mass was excised from borderlines of capsular structures. Diagnosis of this benign neoplasm is facilitated by x-ray, computerized tomography, and especially magnetic resonance imaging. Deep-lying lipomas of the extremities are usually found in the thighs or shoulders. These benign growths may be intermuscular or intramuscular and are most often discovered incidentally or during evaluation of a usually painless swelling.

Key words: Deep-lying lipoma, intramuscular lipoma, thigh, lipoma

Bakırköy Tıp Dergisi 2011;7:167-169

INTRODUCTION

Lipomas are the most common tumors that are seen in surgical onco-pathology. Lipomas are the most commonly excised masses at orthopedic literature. They are usually located in subcuticular areas; and deep location is very rare as well as the distal and intramuscular locations (IM) (1-6). Complete excision in a deep localization mass is a rather difficult procedure.

This study presents a rare and unusual lipoma. This lipoma is located in intramuscular and distal thigh area of the lower extremity. This location is usual; but it mimics malignant soft tissue tumor because of big sizes, deep localization and rapid growth. Differential diagnosis of these rare lipomas must be done carefully.

CASE REPORT

A 55 years-old woman with a history of mass with little pain in the right thigh region is reported in this study. She applied to clinic with a history of growing, painful mass in the right distal thigh during 3 years. In the clinical examination, there was soft, unfixed mass in the right posterior distal 1/3 thigh (10x9x7). With muscle contraction mass became more prominent and fixed. In the x-ray, there was no calcification in the mass. There was no abnormal biochemical findings. Computerized tomography (CT) and magnetic resonance imaging (MRI) revealed that mass had been located in the biceps femoris muscles medially consistent with a deep lipoma (Figure 1,2).

The mass was excised with capsular structures (Figure 3,4). The pathological examination, confirmed the diagnosis as intramuscular lipoma. There were no infiltration, necrosis, fibrosis, pleomorphism; and also cells were not aggressive and atypical. After surgery, no sense of numbness of the right lateral thigh was not noted, but during the next 3 weeks decreasing and

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Geliş tarihi / Date of receipt: 17 Eylül 2011 / September 17, 2011

Kabul tarihi / Date of acceptance: 19 Kasım 2011 / October 19, 2011



Figure 1: T1 weighted frontal MRI sections

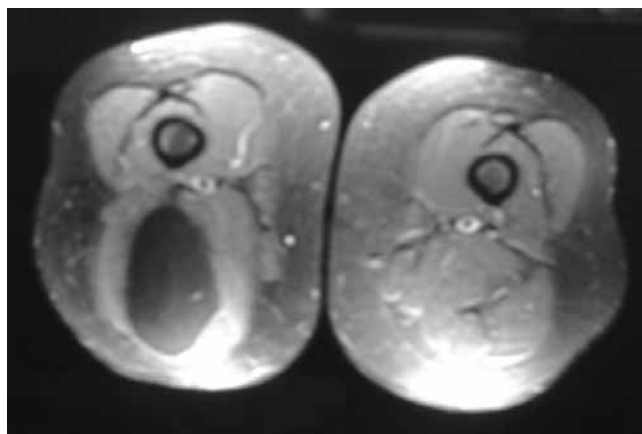


Figure 2: T1 weighted sagittal MRI sections



Figure 3: Intraoperative view of lipoma of the thigh

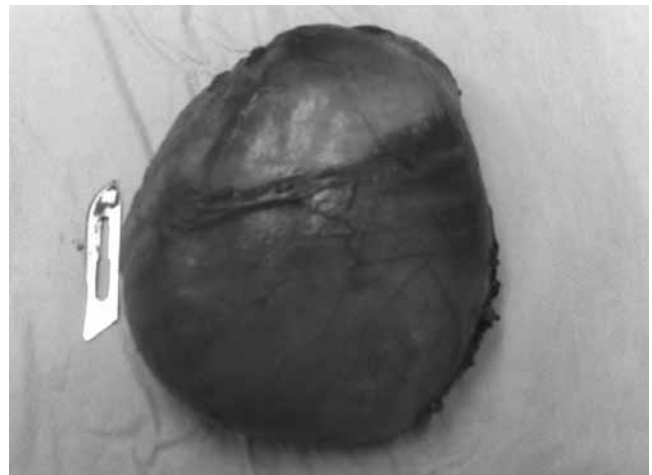


Figure 4: Size of intramuscular lipoma of thigh (107x56 mm)

shooting pains occurred in the same area. Vascular and orthopedic examinations were otherwise normal. At follow-up, at the 30th day after surgery, the patient was free of pain.

DISCUSSION

Paget reported the first intramuscular lipoma in the trapezius muscle in 1856, initially (5). Intramuscular lipomas are benign mass; but it can be confused as a malignant tumor because of the infiltration (7). The most common locations of lipomas, in decreasing order are thigh, shoulder, arm, trunk muscles (1,3,5,6,7). By the MRI, intramuscular lipomas were popular in the literature; and Kindblom suggested that lipomas are the most common deep soft tissue mass in the human body (5).

Computerized tomography can assign location and invasion of tumor well; and it can make differential diagnosis from other malignant tumors. But MRI is more specific than computerized tomography in the differential diagnosis of benign tumor; especially regarding diffuse T1 intensity.

The locations and clinical features of deep-lying lipomas of the extremities have been well described. Intramuscular lipomas are found in the planes between muscles. IM lipomas infiltrate skeletal muscle and may locally recur if they are not completely excised. The magnetic resonance features of these tumors have been reported and can be helpful in distinguishing benign lipomas from malignant liposarcomas. Surgery, however, is often needed to confirm the benign nature of these growths, and extensive resection may be necessary to avoid recurrence. Histological

examination of IM lipomas can show infiltration of skeletal muscles, with strips of preserved muscle fibers traversing adipose tissue. This appearance is indicative of a benign neoplasm of fat tissue (8).

Gold and Oppenheim reported disabling arm pain and paresthesias associated with an intermuscular lipoma of the forearm (9). Irritation of an intimately related nerve was the suspected cause of symptoms. Leffert's series of 141 upper extremity lipomas included 26 causing pain and 6 causing nerve compression, but the number of deep lipomas was not mentioned (10). Bjerregaard et al reported that one of his 12 patients with deep lipomas of the thigh had pain sufficient to inhibit function of the leg, and Warner et al described two cases of shoulder pain related to IM lipomas of the deltoid muscles (1,11). There was no significant pain in this patient.

The most important step in the treatment is the excisional biopsy and pathological confirmation. Biopsy helps differential diagnosis and planning of surgical treatment. Intramuscular lipoma is characterised by in vacuolized lipocytes that does not demonstrate pleomorphism. Multivacuolized lipoblasts are not found

in the lipocytes instead they are infiltrated muscle fibres. In the tumoral stroma, fibrous tissue can appear in different ratios; and it is localized peripherally. Degenerations are common in the infiltrated muscles. Intratumoral bleeding, organisation and dystrophic calcification can change typical view; but lack of full-cytosited areas, lipoblastic proliferation, mucoid differentiation, pleomorphism and mitosis suggest a benign character. In the differential diagnosis, haematoma organization, fibrous myocytes, hydatid cyst and haemangiomas must be in consideration (12).

For the treatment of benign mass, lipoma, total excision and capsular resection is suggested. Infiltration of tumor and age of the patient are important factors. Chronic pain, numbness, hypoesthesia, paraesthesia, gait abnormality are general complications that must be checked out after operation.

As a result, intramuscular lipomas must be in the list of the differential diagnosis of deep located masses and full capsular resection must be applied due to the risk of recurrence. Clinical and laboratory follow up must be applied seriously.

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