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Case Report

Massive localized lymphedema of the thigh mimicking liposarcoma

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ABSTRACT

Massive localized lymphedema represents a pseudosarcoma seen most commonly in middle-aged morbidly obese patients that radiologically can be easily confused for a soft-tissue sarcoma if one is not familiar with this entity. Although considered relatively rare, as the obesity epidemic continues to rise, the incidence of this entity will likely increase as well. We present a case of massive localized lymphedema occurring in the medial thigh, the most common location, with imaging and pathologic correlation.

Introduction

Massive localized lymphedema (MLL) reflects a slow growing monstrous, pendulous appearing tumefactive pseudosarcoma seen most commonly in middle-aged morbidly obese patients, either as an isolated mass, or multiple masses [1–5]. Clinically, histologically, and radiologically this mass is easy to confuse for malignancy if one is not familiar with the entity. As the obesity epidemic continues to rise, the incidence of this relatively rare entity will likely increase as well. We present a case of MLL occurring in the medial thigh, the most common location, with imaging and pathologic correlation.

Case report

A 46-year-old morbidly obese woman was admitted through the emergency department with 2-3 months of painful redness and swelling of her medial right thigh. She denied any medical history but was found hypertensive on presentation.

An ultrasound obtained to exclude deep vein thrombosis of the right lower extremity was negative. Contrast-enhanced computed tomography (CT; Fig. 1) ordered to exclude soft-tissue abscess demonstrated skin thickening and reticular soft-tissue attenuation compatible with edema throughout the subcutaneous fat at the site of redness.

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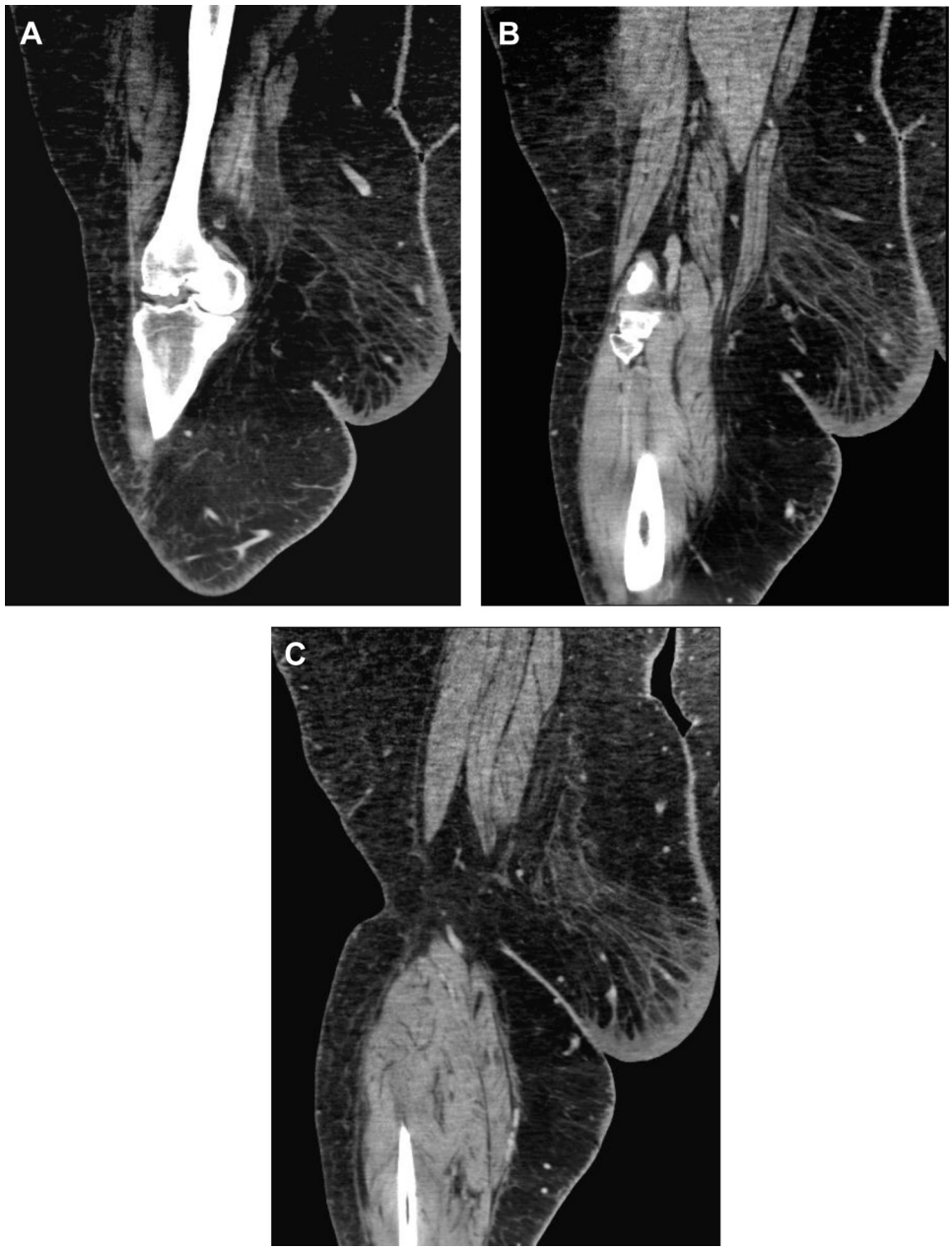

Fig. 1 – A 46-year-old woman with redness and swelling of the medial right thigh—CT. Coronal contrast-enhanced CT images from anterior to posterior (A-C) demonstrate a mass-like pendulous fatty-appearing lesion with skin thickening and striated soft-tissue edema.

The patient was given a presumptive diagnosis of right leg cellulitis. Diuretic therapy started while in the hospital for newly diagnosed hypertension appeared to minimally improve the right thigh swelling. She was also given intravenous antibiotics while being treated in the hospital, and eventually discharged with a 7-day course of oral antibiotics. In addition, a compressive stocking was recommended by the orthopedic surgery service to assist with reducing edema; however, the patient was without insurance and could not obtain this orthotic.

Over the course of the next 2 years, the patient was admitted to the same hospital 4 times for recurrent and/or persistent right thigh painful cellulitis and edema, managed with antibiotics. An ultrasound (Fig. 2) acquired during this time frame to exclude soft-tissue abscess demonstrated lobular contour of the subcutaneous fat with edema, but no organized abscess. Notably, during these admissions, she was afebrile with a normal white blood cell count.

Some 15 months later, the patient returned to the emergency department complaining of 3 weeks of right thigh