ELSEVIER

Clinical Imaging 36 (2012) 873 – 876

CLINICAL IMAGING

An unusual Hodgkin's lymphoma case presenting with upper extremity multiple masses

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Received 14 September 2011; received in revised form 17 November 2011; accepted 3 January 2012

Abstract

Almost always, Hodgkin's lymphoma presents with lymph node involvement. Primary extranodal lymphoma is rare and mostly has a type of non-Hodgkin's lymphoma. We present an unusual presentation of a Hodgkin's lymphoma in a 33-year-old man. There were numerous soft tissue masses localized in the subcutaneous tissue of the left arm along the neurovascular bundle and the ipsilateral axillary region. We found only one Hodgkin's lymphoma case that presented as an upper extremity mass reported in the literature. In cases where a great number of successively lined up soft tissue masses are detected on the extremity, lymphoma takes place among the differential diagnoses.

Keywords: Hodgkin's lymphoma; Extremity; Mass, MRI

1. Introduction

Lymphoma is the invasion of lymphoid tissue by malignant lymphoid tissue cells. Lymphoma is responsible for a significant part of malignancies seen in humans and is basically divided into two: Hodgkin's and non-Hodgkin's lymphoma [1,2]. Non-Hodgkin's lymphomas are more prevalent than Hodgkin's, and they most frequently affect the mediastinal lymph nodes in adulthood and the lymphoid tissue within the small intestine in childhood [3]. Almost always, Hodgkin's lymphoma presents with lymph node involvement. Primary extranodal lymphoma is rare and mostly has a type of non-Hodgkin's lymphoma [2,4]. Localized primary extranodal Hodgkin's lymphoma is very rare [4].

Our case had a number of soft tissue masses on his left arm. Because a great number of masses were in the vicinity of the vena basilica and histopathology of masses was determined as Hodgkin's, we think that the masses in our case developed from brachial lymph nodes. Therefore, our case may be accepted as nodal Hodgkin's lymphoma with multiple brachial lymphadenopathies. In the literature that we could access, there was only one Hodgkin's lymphoma case that presented with a mass in extremity. This mass was described as a bilobulated, subcutaneous mass on the medial aspect of the arm. Whether the soft tissue mass was a lymphadenopathy was not mentioned in that case report.

In the present study, we aimed to draw attention to diagnosing a case with lymphoma which presented with soft tissue masses at the upper extremity by means of radiological and histopathological findings, and lymphoma diagnosis, albeit it is rare, would take place in the differential diagnosis of multiple smooth tissue masses on extremities.

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0899-7071/$ – see front matter
http://dx.doi.org/10.1016/j.clinimag.2012.01.006

2. Case report

A 33-year-old man was referred to our hospital because the masses that had appeared on his left arm 2 years ago had rapidly enlarged within the last 3 months. Upon his physical examination, a number of successive soft tissue masses were identified on the medial part of his left arm. His leukocyte count was found to be 11,200 and the neutrophile rate was 67.2% in the laboratory tests carried out at the orthopedic polyclinic.

A radiologic examination was performed to determine the nature of masses palpated on the arm. Magnetic resonance images (MRIs) were acquired with a 1.5-T superconducting magnet. The left arm and ipsilateral axilla were imaged in a neutral supine position. Imaging was performed in the coronal, transverse, and sagittal planes. The MRI protocol consisted of T1-weighted spin-echo sequences, T2-weighted spin-echo sequences with fat suppression, and T1-weighted spin-echo sequences with fat suppression before and after intravenous injection of a gadolinium-containing contrast agent (gadopentetate dimeglumine).

On the MRI, multiple ovoid masses were observed along the upper medial part of the left arm with axillary masses. Masses were observed to be successive and parallel to neurovascular bundle at the medial part of the arm. The largest mass had a dimension of 25×35×58 mm. The masses, compared to neighboring muscle group, had mildly higher signal on T1-weighted spin-echo images (Fig. 1A), had markedly higher signal on T2-weighted spin-echo images with fat suppression (Fig. 1B), and demonstrated heterogeneous and intense contrast enhancement on postcontrast T1-weighted spin-echo images with and without fat suppression

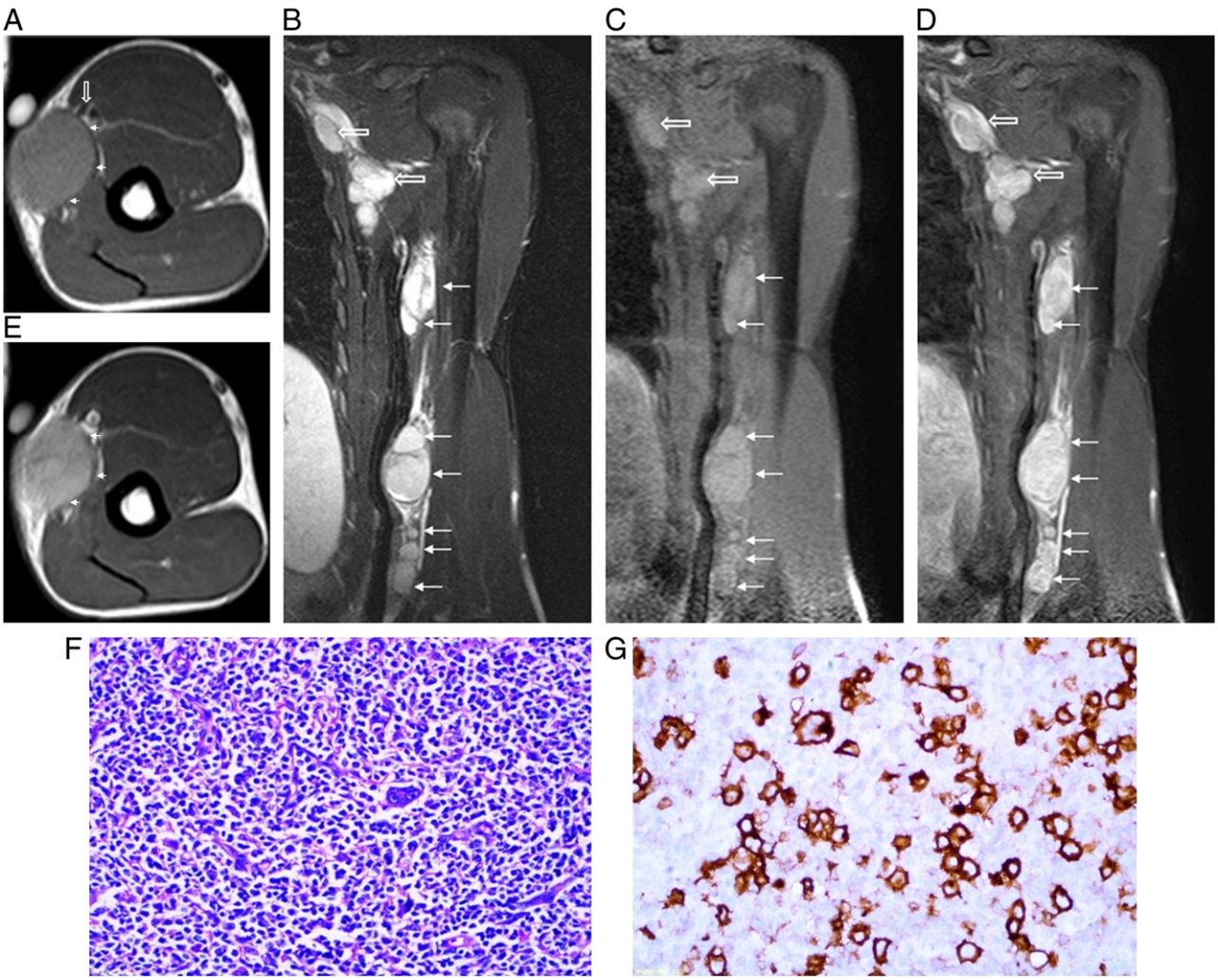

Fig. 1. (A) Axial T1-weighted spin-echo image of the left arm shows a large, well-defined, subcutaneous mass with mildly hyperintense signal intensity relative to the muscles (arrows). The mass is very close to the neurovascular bundle (open arrow). (B) Coronal fat-saturated T2-weighted image shows multiple masses within the subcutaneous fat tissue over the medial aspect of the arm (arrows) and in the ipsilateral axillary region with hyperintense signal intensity (open arrow). Multiple arm masses course along the neurovascular bundle. (C) Coronal fat-saturated T1-weighted image shows multiple ovoid and rounded masses within the subcutaneous fat tissue of the arm (arrows) and in the axillary region (open arrows) with mildly hyperintense signal relative to the muscles. (D) Coronal postcontrast fat-saturated T1-weighted and (E) axial postcontrast T1-weighted images show heterogenous contrast enhancement (arrows). (F) Histopathologic specimen of the mass shows Reed–Sternberg cells (hematoxylin and eosin, ×400). (G) Histopathologic specimen shows immunohistochemical CD30 positivity.