INTRODUCTION

Lymphangioma is a benign vascular tumor arising from lymphatic tissues and is rarely encountered in adults [1]. Furthermore, in adults diagnosis is sometimes difficult, especially after trauma [2]. Lymphangiommas resulting from trauma have previously been reported in the upper limbs and head and neck region [3-5]. We present the fluorine-18 fluoro deoxyglucose (18F-FDG) positron emission tomography/computed tomography (PET/CT) findings of lymphangioma in the iliac and inguinal areas of a 34-year-old male.

CASE

A 34-year-old male patient was referred to our hospital for the evaluation of right lower abdominal pain. He had undergone surgery due to a right femoral fracture several years previously. At admission, right lower quadrant tenderness was noted on palpation. Laboratory tests revealed leukocytosis (white blood cell count 132,600/μL) and an elevated C-reactive protein level (1.161 mg/dL). Tumor marker findings were normal. Plain radiography failed to detect any abnormal lesion. However, abdominal CT showed multiple hypodense cystic masses in the right iliac and right inguinal areas. 18F-FDG PET/CT (Discovery VCT; GE Medical Systems, Milwaukee, WI, USA) was performed for differential diagnosis, and multiple low density masses with slightly increased 18F-FDG uptake (maximum standardized uptake value [SUVmax] 3.1) were observed in the right iliac and inguinal areas (Fig. 1).

The patient underwent partial excisional biopsy and pathologic examination revealed lymphangioma (Fig. 2). He subsequently recovered entirely during hospitalization and laboratory tests were within normal limits at the time of discharge.
The diagnosis of lymphangioma is sometimes difficult in adults, especially when it results from trauma. Imaging modalities, such as ultrasonography and magnetic resonance imaging, may be helpful during diagnosis and preoperative staging [13]. On T2 weighted images, lymphangiomas exhibit high signal intensities [8], and previous studies have described lymphangiomas in the spleen, lung, and retroperitoneum mimicking malignancy on \( ^{18} \text{F-FDG PET/CT} \) images [14-16]. To the best of our knowledge, this is the first report to describe the PET/CT findings of lymphangioma in the iliac and inguinal areas. In our case, slightly increased \( ^{18} \text{F-FDG} \) accumulation was noted, which suggests that the probable cause was lymphocyte and fluid infiltration into expanded lymphatic vessels.

Lymphangiomas are usually treated for cosmetic reasons because they present no risk of malignancy. Thus, the need for surgical excision must be based on considerations of presenting clinical features. Other treatments include...
needle aspiration, incision and drainage, sclerotherapy, and laser or radiofrequency ablation. However, complete surgical excision is sometimes difficult because lymphatic channels invade adjacent tissues. Recurrence has been reported to occur in 10%-15% of patients within 9 months of surgery [2].

We report the \(^{18}\text{F-FDG PET/CT}\) findings in lymphangioma resulting from trauma, and recommend this disease entity be considered when \(^{18}\text{F-FDG PET/CT}\) shows abnormal lymph node uptake.

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