Mycosis Fungoides Mimicking Tinea Cruris: A Case Report

Tinea Krurisi Taklit Eden Mikozis Fungoides: Olgu Sunumu

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ABSTRACT

Mycosis fungoides is the most common primary cutaneous T cell lymphoma. Mycosis fungoides can mimic various skin diseases due to its different clinical types and rare clinical presentations. Hereby, a 38-year-old male patient with mycosis fungoides with the lesions in the inguinal region mimicking tinea cruris was presented.

Keywords: Cutaneous, lymphoma, mycosis fungoides, tinea cruris.

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ÖZET

Mikozis fungoides en sık görülen primer kutanöz T hücreli lenfomadır. Mikozis fungoides, farklı klinik tipleri ve nadir klinik görünümleri nedeniyle çeşitli deri hastalıklarını taklit edebilir. Burada, inguinal bölgedeki lezyonları tinea krurisi taklit eden, 38 yaşında mikozis fungoidesli bir erkek hasta sunulmuştur.

Anahtar Sözcükler: Kutanöz, lenfoma, mikozis fungoides, tinea kruris.

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INTRODUCTION

Mycosis fungoides is the most common primary cutaneous T cell lymphoma which usually presents with erythematous patches, plaques and tumors (1,2). However, different clinical manifestations of mycosis fungoides such as hypopigmented, hyperpigmented, poikilodermatous, bullous, pigmented purpura-like and intertriginous mycosis fungoides have been described (1). Therefore, the diagnosis of mycosis fungoides is not always easy to make due to its clinical diversity. It has been reported that mycosis fungoides could mimic numerous skin diseases such as psoriasis, erysipelas, rosacea and tine corporis (2). Hereby, a rare case of mycosis fungoides with the lesions in the inguinal region mimicking tinea cruris was presented.

CASE REPORT

A 38-year-old Caucasian male presented with a 14-month history of asymptomatic hyperpigmented macules and patches in the groin and lower extremities. The lesions were increased in size and number gradually. The patient stated that he did not receive any treatment previously. Past medical history and family history were both unremarkable. Dermatological examination revealed orange, brown colored patches in the left inguinal region. In addition, orange, yellow colored macules and patches with indistinct borders and petechiae were detected on the legs, medial side of the feet, right inguinal region and lower abdominal region (Figure 1). No fluorescence was detected on Wood's lamp examination of the left inguinal region and potassium hydroxide microscopy was negative, which were performed to exclude cutaneous infections such as tinea cruris, erythrasma and candidal intertrigo.

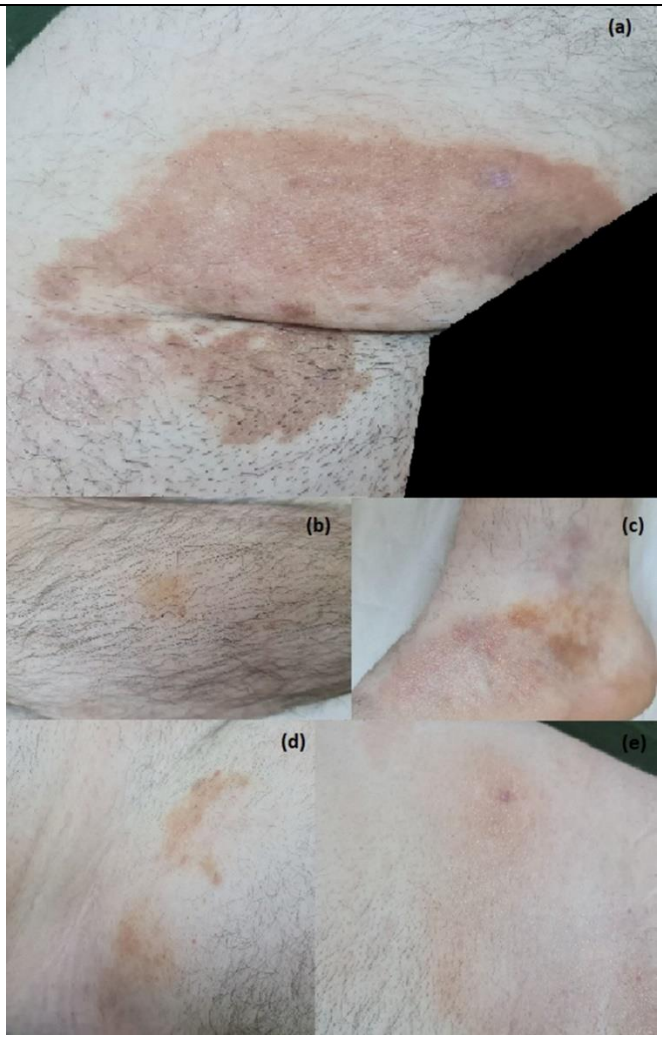

Figure 1. Skin lesions; (a) left inguinal region (b) right leg (c) medial side of the right foot (d) right inguinal region (e) left lower abdominal region.

Skin biopsies were performed from the patches in the left inguinal region and lower abdominal region to reach a definitive diagnosis. Histopathological examination revealed mild hyperkeratosis and band-like infiltration of small to medium sized atypical lymphocytes with convoluted nuclear borders. Atypical lymphocytes tagging along the dermoepidermal junction and focally prominent epidermotropism were observed (Figure 2). Immunohistochemistry revealed diffuse membranous staining of atypical lymphocytes with CD3 and CD8 and marked loss of CD4 expression especially in the epidermotropic lymphocytes (Figure 3). The diagnosis of mycosis fungoides was made based on clinical and histopathological findings.

Laboratory tests such as biochemistry panel, lactate dehydrogenase and beta-2 microglobulin were all within normal limits. Complete blood count was normal except for decreased mean platelet volume (7.8 fL, range: 9.3-12.1 fL). Hepatitis B surface antigen, hepatitis B surface antibody, hepatitis C virus antibody and anti-human immunodeficiency virus antibody were all negative. No atypical T lymphocyte was detected in peripheral blood smear. The ratio of CD4 and CD8 positive T cells was 0.65/1 in peripheral blood flow cytometry. Ultrasonography of the neck and abdomen were normal. However, ultrasonography revealed reactive lymph nodes in the left inguinal region, right inguinal region and left axilla (size of the lymph nodes: 16x7 mm, 16x8 mm and 15x8 mm, respectively). The disease stage was determined as IA according to TNMB classification (3). Therefore, narrow-band ultraviolet B therapy was initiated at a dose of 0.2 J/cm^2 three times a week.

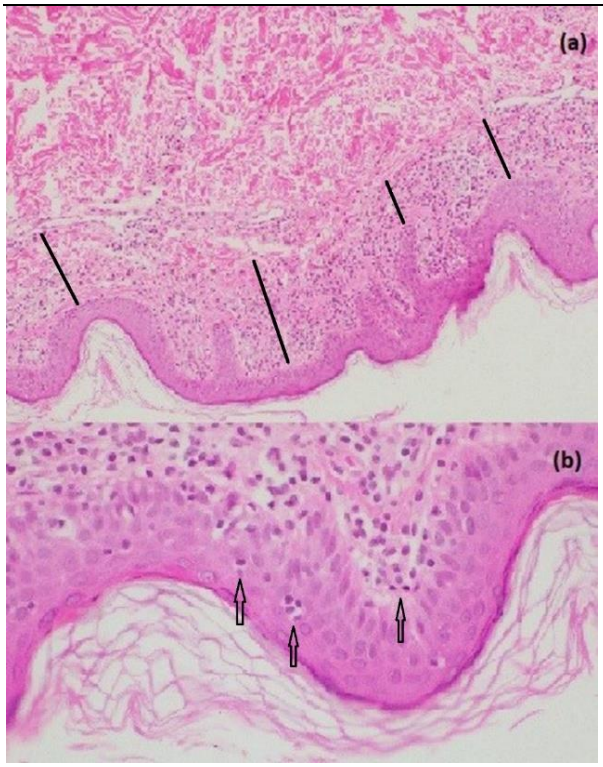

Figure 2. Histopathological examination; (a) mild hyperkeratosis and band-like mononuclear cell infiltration in the upper dermis (hematoxylin & eosin X40) (b) atypical lymphocytes with convoluted nuclear borders tagging along the dermoepidermal junction and showing epidermotropism (hematoxylin & eosin X400).

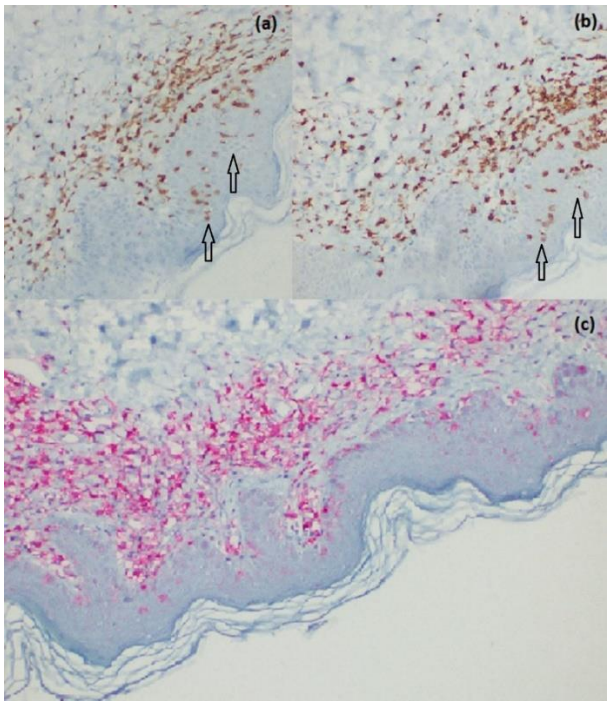

Figure 3. Immunohistochemistry; prominent expression of CD3 (a) and CD8 (b) by intraepidermal lymphocytes (X200) (c) loss of CD4 expression in intraepidermal lymphocytes (X200).

DISCUSSION

Mycosis fungoides is usually limited to skin and presents with mild scaly erythematous or hyperpigmented patches in early stages (2,4). Early diagnosis and appropriate treatment are crucial in the management of patients with mycosis fungoides. However, diverse clinical variants such as folliculotropic mycosis fungoides, pagetoid reticulosis and granulomatous slack skin and rare clinical presentations characterized by bullous, purpuric and hypopigmented lesions may lead to difficulty in diagnosis (4). Various benign and malignant skin disorders such as atopic dermatitis, psoriasis vulgaris, alopecia areata and Bowen's disease can mimic mycosis fungoides (2). In addition, Hubert et al. reported a 61-year-old female patient with mycosis fungoides concealed by treatment resistant widespread tinea corporis (5). Lu et al. reported a 19-year-old male patient with folliculotropic mycosis fungoides who was misdiagnosed as tinea capitis and treated with oral itraconazole (6). Steven et al. reported a 68-year-old male patient with mycosis fungoides who was initially misdiagnosed as tinea pedis and treated with topical and oral terbinafine for one year with no adequate response (7). Therefore, it has been suggested that mycosis fungoides should be included in the differential diagnosis of cutaneous fungal infections especially which were unresponsive to treatment (5-7).

The patient we present is rare since the most prominent lesions were located in the groin and resembled tinea cruris. It should be kept in mind that mycosis fungoides may present with atypical clinical features. Considering unusual clinical presentations and thus making prompt diagnosis is of utmost important to initiate appropriate treatment immediately and prevent disease progression.

CONCLUSION

The diagnosis of mycosis fungoides may be troublesome since it can present with unusual manifestations and mimic various dermatological diseases. Complete skin examination performed in clinical practice provides important diagnostic clues.

Conflict of interest
No conflict of interest was declared by the authors.

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