

## **Case Report**

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# An Uncommon Manifestation of Mycosis Fungoides (MF) with Annular Lesions

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#### ABSTRACT

Mycosis fungoides (MF) is the most common type of cutaneous T-cell lymphoma, which often appears in the form of patches, plaques, and tumors as originally described by Alibert and Bazin. The manifestation of MF as annular lesions is uncommon, and herein we report one of those cases. A 54-year-old woman complaining of itchy skin lesions from three years before, came to our clinic with no response to topical steroids. In skin examination, there were annular lesions with erythematous slightly raised borders, and some scattered erythematous thin plaques in trunk and extremities with a predilection to lower extremities. Epidermal and poikilodermic changes were not evident. There were no lymphadenopathy and hepatosplenomegaly. Biopsies were obtained from three different lesions and the diagnosis of all samples was consistent with MF. A diagnosis of stage 1B of MF was made and the patient went under oral psoralen and ultraviolet A (PUVA) therapy. MF has different clinical manifestations that can be confused with other inflammatory dermatological disorders. Until now, less than 10 cases of MF with annular lesions have been reported in the English literatures, and most of them initially were under treatment with other differential diagnosis of annular lesion than MF.

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### Introduction

rimary cutaneous T-cell lymphomas (CTCL) are a heterogeneous group of lymphocytes skin-homing T

malignancies. Mycosis fungoides (MF) accounts for nearly 50% of all cases. The classic type of MF is characterized by infiltration of atypical T lymphocyte with cerebriform nuclei in the papillary dermis, and evidence of epidermotropism (1). Classic MF, which often appears in the form of patches, plaques, and tumors, typically exhibits slow progression in first years after diagnosis (2).

Although, MF can appear in different range of clinical presentations, the manifestation of MF as annular lesions is uncommon, and herein we report one of such cases.

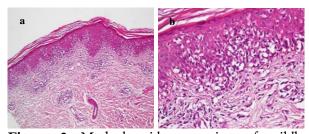
## **Case Report**

A 54-year-old woman complaining of itchy skin lesions from three years before, came to our clinic with no response to topical steroids. Physical examination revealed annular lesions with erythematous and slightly raised borders, with a predilection to lower extremities. The centers of annular lesions had different range of appearance from normal-looking to slightly erythematous (Figure 1). There were also limited number of scattered erythematous thin plaques on the trunk and extremities.



Figure 1. Annular lesions with erythematous and slightly raised borders with scattered thin plaques on trunk and extremities

Epidermal and poikilodermic changes were not evident. There were no lymphadenopathy and hepatosplenomegaly, and no remarkable past medical history was found. Biopsies were obtained from the borders of three different lesions, and all samples revealed marked epidermotropism with mild atypical lymphocytes consistent with MF (Figure 2).



**Figure 2.** Marked epidermotropism of mildly atypical lymphocyte with no appropriate spongiosis a: Hematoxylin and eosin (H&E) staining  $\times$  100, b: H&E staining  $\times$  400

Complete blood count (CBC) and peripheral blood smear of the patient were normal. A diagnosis of stage 1B of MF was made, and patient went under oral psoralen and ultraviolet A (PUVA) therapy. Currently, the patient is under follow-up.

### **Discussion**

Although, MF often presents as asymmetric patches, plaques, and tumors predominantly in swimsuit distribution, it can also have different manifestations that may be confused with other inflammatory dermatologic disorders. Until now, less than ten cases of MF with annular lesions have been reported in the literature.

In 1998, Crowley et al. reported the first case of MF with annular lesions in a 27-year-old woman for whom a diagnosis of erythema annulare centrrifugum (EAC) had been given for seven years until a cutaneous biopsy rectified the diagnosis of MF (3). Subsequently, Zackheim and McCalmont reviewed dermatoses that simulate MF, and described a case of MF mimicking EAC in an adult (4).

In 2003, Lim et al. reported another case of MF presented with polycyclic and annular plaques in 41-year-old man (5). Cogrel et al. also reported a case of a 12-year-old girl having EAC-like lesion for six months that histologic

immunohistochemistry examination and staining determined the final diagnosis of MF. Treatment with topical chlormethine twice a week, and 22 sessions of PUVA therapy led to clinical remission for their patient (6).

In 2009. Moura et al. elaborated on a case of MF presenting as typical EAC for 4 years with a complete response to PUVA therapy (7).

EAC, subacute cutaneous lupus lymphocytic infiltrate of erythematosus, Jessner, and annular psoriasis are considered as the main differential diagnoses of annular lesions of MF (7).

All cases mentioned earlier were approached with treatments for differential diagnoses of annular lesions other than MF (3-7).

In conclusion, considering the above reports, dermatologists should consider MF as one of the differential diagnoses of annular lesion, especially in long-lasting cases, and those without response to topical therapies.

### **Conflict of Interests**

Authors have no conflict of interests.

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