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HYPOPIGMENTED MYCOSIS FUNGOIDES MIMICKING VITILIGO: A CASE REPORT AND LITERATURE REVIEW

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ABSTRACT

Hypopigmented mycosis fungoides (HMF) is a rare variant of cutaneous T-cell lymphoma (CTCL) that typically manifests as hypopigmented macules or patches, especially in individuals with darker skin types. Its clinical appearance can resemble benign disorders such as vitiligo, which may delay diagnosis. We report a case of a 61-year-old man with Fitzpatrick phototype IV who presented with a six-year history of pruritic, progressively spreading hypopigmented lesions on the trunk and extremities, accompanied by inguinal lymphadenopathy. The hypopigmented macules resembled vitiligo. Histopathological analysis revealed epidermotropic atypical lymphocytes with a CD8+ predominance, consistent with HMF. The patient received systemic methotrexate. This case underscores the importance of including HMF in the differential diagnosis of persistent hypopigmented dermatoses and highlights the crucial role of skin biopsy in establishing an accurate diagnosis and initiating appropriate therapy.

KEYWORDS

Hypopigmented mycosis fungoides; Cutaneous T-cell lymphoma; Vitiligo mimic

MAIN ARTICLE

Introduction

Mycosis fungoides (MF) is the most frequent form of cutaneous T-cell lymphoma (CTCL), often presenting as erythematous patches or plaques. Among its less common variants, hypopigmented mycosis fungoides (HMF) is characterized by hypopigmented macules and patches that may mimic benign dermatologic conditions such as vitiligo, pityriasis alba, or post-inflammatory hypopigmentation [1,2]. This variant primarily affects individuals with darker skin phototypes, where loss of pigment is more clinically visible [3]. Because of its indolent progression and innocuous appearance, HMF can be easily underrecognized. Although it typically affects young patients, adult-onset cases are increasingly reported [2,4]. We present a case of HMF in a middle-aged adult with vitiligo-like lesions and highlight key clinical, histological, and diagnostic features of this variant.

Case report

A 61-year-old male with Fitzpatrick skin phototype IV presented with a 6-year history of pruritic skin lesions that initially appeared on the posterior aspect of the lower leg and progressively involved the trunk, upper limbs, face, and scalp. Dermatologic examination revealed diffuse xerosis and multiple hypopigmented macules without overlying scale on the trunk and upper extremities, some of which closely resembled vitiligo patches (Figure1).

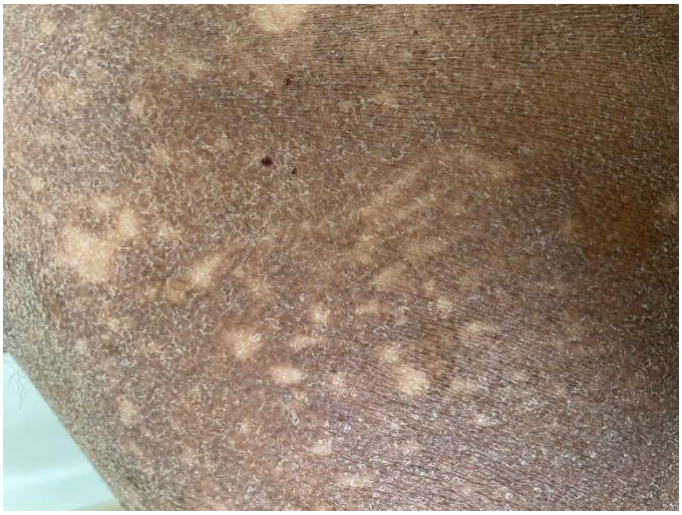

***Figure 1**: hypopigmented macules on the trunk*

Additional hyperpigmented nodules were observed on the lower limbs, and sparse hypopigmented macules were noted on the scalp (Figure 2).

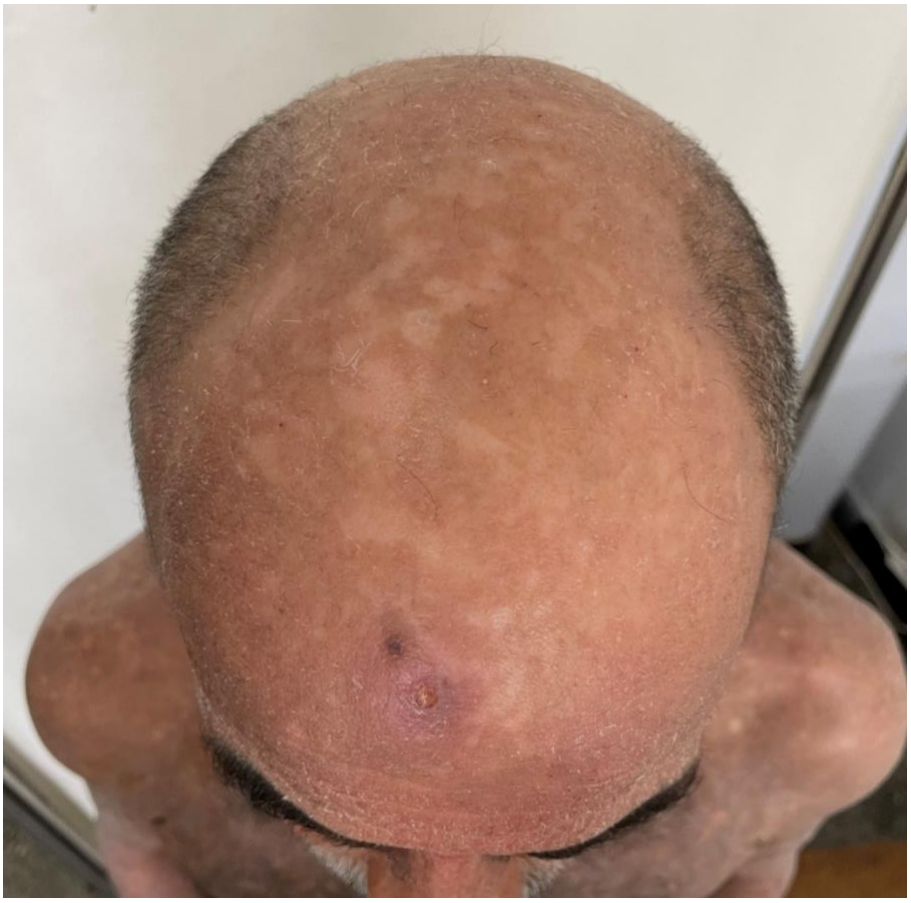

***Figure 2**: hypopigmented macules on the scalp*

There was no history of autoimmune disease, and the patient denied constitutional symptoms. Physical examination also revealed multiple bilateral mobile, non-tender inguinal lymphadenopathies. Laboratory investigations showed microcytic hypochromic anemia with low ferritin and mild eosinophilia. The CD4/CD8 ratio was markedly reduced (<10), without circulating Sézary cells. LDH levels were elevated. Imaging revealed bilateral inguinal and iliac lymphadenopathies with no visceral involvement. A skin biopsy demonstrated an epidermotropic infiltrate of atypical lymphocytes with hyperchromatic and irregular nuclei, consistent with MF. Immunohistochemical analysis revealed a predominance of CD8+ T-cells and partial loss of CD7 expression. Bone marrow and lymph node biopsies were conducted for staging. The patient was treated with methotrexate.

Discussion

Hypopigmented mycosis fungoides is a rare variant of CTCL that presents as hypopigmented macules or patches and is frequently mistaken for vitiligo, pityriasis alba, or tinea versicolor [1,5]. Although more frequently described in children and young adults, especially in skin types IV to VI, it may also occur in older adults, as seen in this case [2,4]. Clinically, the lesions are typically non-scaly, asymptomatic or pruritic, and predominantly involve the trunk and proximal extremities [3].

Histologically, HMF shows characteristic features of epidermotropic atypical T-lymphocytes with cerebriform nuclei and a band-like lymphoid infiltrate in the superficial dermis. Unlike classic MF, which is CD4+ predominant, HMF often demonstrates a CD8+ phenotype [6]. Loss of CD7 and decreased CD117 expression have also been noted and may help distinguish it from vitiligo [7,8]. Despite the overlap in clinical appearance, HMF retains melanocytes in the basal layer, in contrast to the complete melanocyte loss seen in vitiligo [7].

The latency between onset of symptoms and diagnosis is often long, with delays of up to 9 years reported in some studies, owing to the benign appearance of lesions and misinterpretation as non-malignant dermatoses [2]. In the present case, although no formal misdiagnosis occurred, the vitiligo-like appearance of the lesions could have contributed to diagnostic delay if a biopsy had not been performed.

Treatment options for HMF are similar to those used in early-stage MF and include topical corticosteroids, phototherapy (narrowband UVB or PUVA), and methotrexate [4]. Most patients respond well to therapy, although recurrence is common. Long-term follow-up is essential due to the chronic and potentially relapsing course of the disease [3,4].

Conclusion

Hypopigmented MF should be considered in the differential diagnosis of persistent hypopigmented patches, particularly in patients with darker skin phototypes. Despite its benign clinical appearance, it represents a malignant lymphoproliferative disorder requiring histological confirmation for diagnosis. This case illustrates that vitiligo-like lesions can conceal a diagnosis of MF and reinforces the importance of biopsy in persistent or atypical hypopigmented dermatoses.

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