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LETTER

Letter to the Editor Regarding a Comprehensive Update of the Atypical, Rare, and Mimicking Presentations of Mycosis Fungoides

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Dear Editor,

We read Lebas et al.'s systematic review with great interest [1]. Their study provided a necessary update on dermatoses that can present similarly to mycosis fungoides (MF). We appreciate their findings and would like to highlight the importance of inclusion of diverse patient images. Despite a low incidence in the general population, MF has a higher incidence in Black patients [2]. Moreover, Black patients with MF present with earlier onset and more advanced disease compared with white patients in the USA [3]. More research is needed to establish definite causes of these racial disparities in patients with MF, but delays in diagnosis may contribute to this finding. MF can present with numerous variants that may mimic other dermatoses, such as atopic dermatitis, psoriasis, or vitiligo, which can cause delays in the initial diagnosis and thus treatment for this condition [4]. To further our understanding of racial disparities in MF outcomes and appropriately train medical providers on the wide array of clinical presentations of MF, inclusion of diverse patient images is paramount. In this study, we reviewed the primary articles identified in this systematic review to assess the inclusion of skin of color (SOC) patients.

We collected the following information from the articles: dermatosis initially diagnosed or phenotypic features described and skin tone diversity and how this was assessed or denoted.

From the original article, 74 studies were reviewed. Of the 74 studies, 10 did not explicitly specify the race/ethnicity or skin type of patients and this information was incapable of being ascertained from included images [5–14]. The number of studies explicitly noting race/ethnicity or skin type included skin of color patients at a rate of 23.0% (n = 17, Table 1) [15–31]. The inclusion of studies with Black patients and those with Fitzpatrick Type 4 or greater was 12.2% (n = 9, Table 1) [23–31]. Lastly, the studies that included Black patients focused on misdiagnoses

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Table 1 Studies with skin of color patients

Title	Other diagnosis/variant phenotype	Country	Proportion of skin of color patients to total patients	Skin tone diversity
Hypopigmented mycosis fungoides mimicking vitiligo [15]	Vitiligo	Korea	1/1	Race, Korean
Mycosis fungoides bullosa associated with bullous pemphigoid [16]	Bullous	Japan	1/1	Race, Japanese
Mycosis fungoides palmaris et plantaris successfully treated with radiotherapy: case report and mini-review of the published work [17]	Hyperkeratosis	Japan	1/1	Race-Japanese
Ichthyosiform mycosis fungoides: report of a case associated with IgA nephropathy [18]	Ichthyosis	Japan	1/1	Race, Japanese
Serpiginous mycosis fungoides in a 21-year-old man [19]	Pigmented purpuralike	Canada	1/1	Race, Asian
Poikilodermatous mycosis fungoides with a CD8 + CD56 + immunophenotype: a case report and literature review [20]	Poilkiloderma	Japan	1/1	Race, Japanese
Pediatric mycosis fungoides in Singapore: a series of 46 children [21]	Pityriasis lichenoides chronica; Postinflammatoru hypopigmentation	Singapore	42	Race, Chinese (33); Malay (7); Indian (2); others (4)
Solitary plaque on the leg of a child: a report of two cases and a brief review of acral pseudolymphomatous angiokeratoma of children and unilesional mycosis fungoides [22]	Acral pseudolymphomatous angiokeratoma of children	USA	1/2	Race/ethnicity, Hispanic
Mycosis fungoides presenting as areas of hypopigmentation [23]	Hypopigmentation	USA	3/3	Race, Black (2); Nicaraguan (1)
Cutaneous T-cell lymphoma mimicking porokeratosis of Mibelli [24]	Porokeratosis	USA	1/1	Race, Black
Cutaneous T-cell lymphoma with porokeratosis-like lesions [25]	Porokeratosis	USA	2/2	Race, Black
Hypopigmented macules [26]	Hypopigmentation	USA	1/1	Race, Black

Table 1 continued

Title	Other diagnosis/variant phenotype	Country	Proportion of skin of color patients to total patients	Skin tone diversity
Hypopigmented variant of mycosis fungoides: demography, histopathology, and treatment of seven cases [27]	Hypopigmentation	USA	7/7	Race, African American; Puerto Rican; Trinidadian (number unspecified)
Folliculotropic mycosis fungoides with large-cell transformation presenting as dissecting cellulitis of the scalp [28]	Dissecting cellulitis of the scalp	USA	1/1	Race, Black
Hypopigmented mycosis fungoides [29]	Hypopigmentation	USA	3/3	Race, Black/African American
Perineural and intraneural cutaneous granulomas in granulomatous mycosis fungoides mimicking tuberculoid leprosy [30]	Leprosy	Colombia	1/4	Image 1-FST III, Image 2-FST IV, Image 3 FST II
Necrobiotic cutaneous T-cell lymphoma [31]	Necrobiotic features	UK	1/3	Ethnicity, Afro-Caribbean

that were initially diagnosed as hypopigmentation ($n = 4$, Table 1), porokeratosis ($n = 2$, Table 1), dissecting cellulitis of the scalp ($n = 1$, Table 1), leprosy ($n = 1$, Table 1), or showing an atypical feature of necrobiosis ($n = 1$, Table 1).

There is a paucity of inclusion of case reports reporting conditions that are initially misdiagnosed before the correct diagnosis of MF in SOC patients. In the study analyzed, there are over 50 diagnoses mentioned that can mimic MF, yet only 5 of these diagnoses have referenced studies that included Black patients [1]. Interestingly, hypopigmented MF is a variant more commonly seen in Black patients and may indicate a greater chance of improved outcomes [32]. Folliculotropic MF is a variant in which malignant cells infiltrate hair follicles, and has been reported to present similar to dissecting cellulitis of the scalp [4]. Granulomatous MF is another variant and has been reported to show features of necrobiosis and similarities to leprosy. Further review of MF mimickers and variants more common in Black patients may help elucidate reasons for racial differences in outcomes. Given the difference in outcomes of Black patients with MF and reports of increased prevalence of the condition in Black patients, studies about MF should include images of SOC patients or reference skin tone differences in their patient cohorts. Likewise, the lack of included articles with SOC patients also impacts trainee education on the presentation of MF [33]. Trainees and providers should be aware of the ways MF can present in darker-skinned patients, since Black patients with MF are more likely to have a worse prognosis. Lastly, providers in any specialty should be compelled to contribute to the literature on this topic by publishing articles or submitting images of challenging MF diagnoses in SOC patients. Future studies should assess the inclusion of SOC patients with MF in more resources.

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