

Vitiligo Co-Localized Over a Patch of Alopecia Areata in Two Patients: More Than a Coincidence?

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Case Presentation

A 17-year-old boy and an 8-year-old boy presented to us with discrete patches of smooth, non-scarring alopecia co-localized with depigmentation over the scalp (Figure 1, A and B). In the first case, alopecia areata followed vitiligo, while it was the opposite in the second case. On dermoscopy of the alopecic patches, black dots, broken hairs, and vellus hairs were appreciated. We made a diagnosis of alopecia areata co-localized with vitiligo based on clinical and dermoscopic findings.

Teaching Point

There are few previous reports of co-localization of alopecia areata and vitiligo [1,2]. They seem to share common

pathogenesis; however, it has also been argued that this might be just a coincidence. An interferon (IFN)- γ -driven immune response is proposed in both diseases whereby IFN- γ is required for the recruitment of CD8+ cytotoxic lymphocytes to the sites of inflammation [2]. Class II human leukocyte antigen (HLA) and other non-HLA genes have also been implicated in both diseases [1]. In alopecia areata, the initial targets for autoimmunity are hair follicle melanocytes (along with keratinocytes, and dermal papilla cells) while in vitiligo the initial target is epidermal melanocytes [1]. When this compartmentalization is blurred, both epidermal and hair follicle melanocytes are destroyed by autoimmunity, leading to co-localization.



Figure 1. (A) Patient 1: Development of vitiligo over 1 out of the 3 patches of alopecia areata. (B) Patient 2: Development of alopecia areata over both patches of vitiligo. Inset shows the patches individually.

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