

Successful Treatment of Morpheaform Graft-Versus-Host Disease: A Dermoscopic Follow-up of 1 Year

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Case Presentation

A 40-year-old male underwent hematopoietic stem cell transplant (HSCT) for acute myeloid leukemia. He presented with itching, erythema, and induration over the anteromedial thigh (Figure 1A), one-year post-HSCT. Dermoscopy revealed background erythema, prominent pigment network, perifollicular blue-gray and whitish structureless areas, scaling, and reduced hair-follicles (Figure 1B). Histopathology showed orthokeratosis, mild acanthosis, basal cell vacuolar degeneration, and mild lichenoid lymphocytic infiltrate in the interface. Superficial and deep dermis showed parallelly arranged thickened collagen bundles and mild lymphocytic perivascular inflammation with melanophages (Supplementary Figure). The background erythema, prominent pigment network, and perifollicular blue-grey and whitish structureless areas on dermoscopy corresponds to lymphocytic inflammation, melanophages, lichenoid infiltrate and collagen bundles, respectively. He was diagnosed as localized morpheaform graft-versus-host disease (GVHD).

He was managed with super-potent topical corticosteroids (TCS) twice daily for 6 months and once-daily thereafter following favorable response. Follow-up at 1-year revealed completely regressed lesion without any induration or erythema (Figure 1C). Repeat skin biopsy did not show any features of GVHD. Dermoscopy revealed resolution of erythema and scaling signifying settled inflammation, telangiectasias due to potent TCS use, peppering, and prominent white structureless areas due to fibrosis (Figure 1D).

Teaching Point

The dermoscopic features of localized morpheaform GVHD are not well established. Kaminska et al described granularity, rhomboidal pigment arrangement, mild scaling, and white patchy areas; however, no follow-up dermoscopy was performed [1]. We found that follow-up dermoscopy may give an important clue regarding the treatment response. The disappearance of erythema and scaling, prominent white

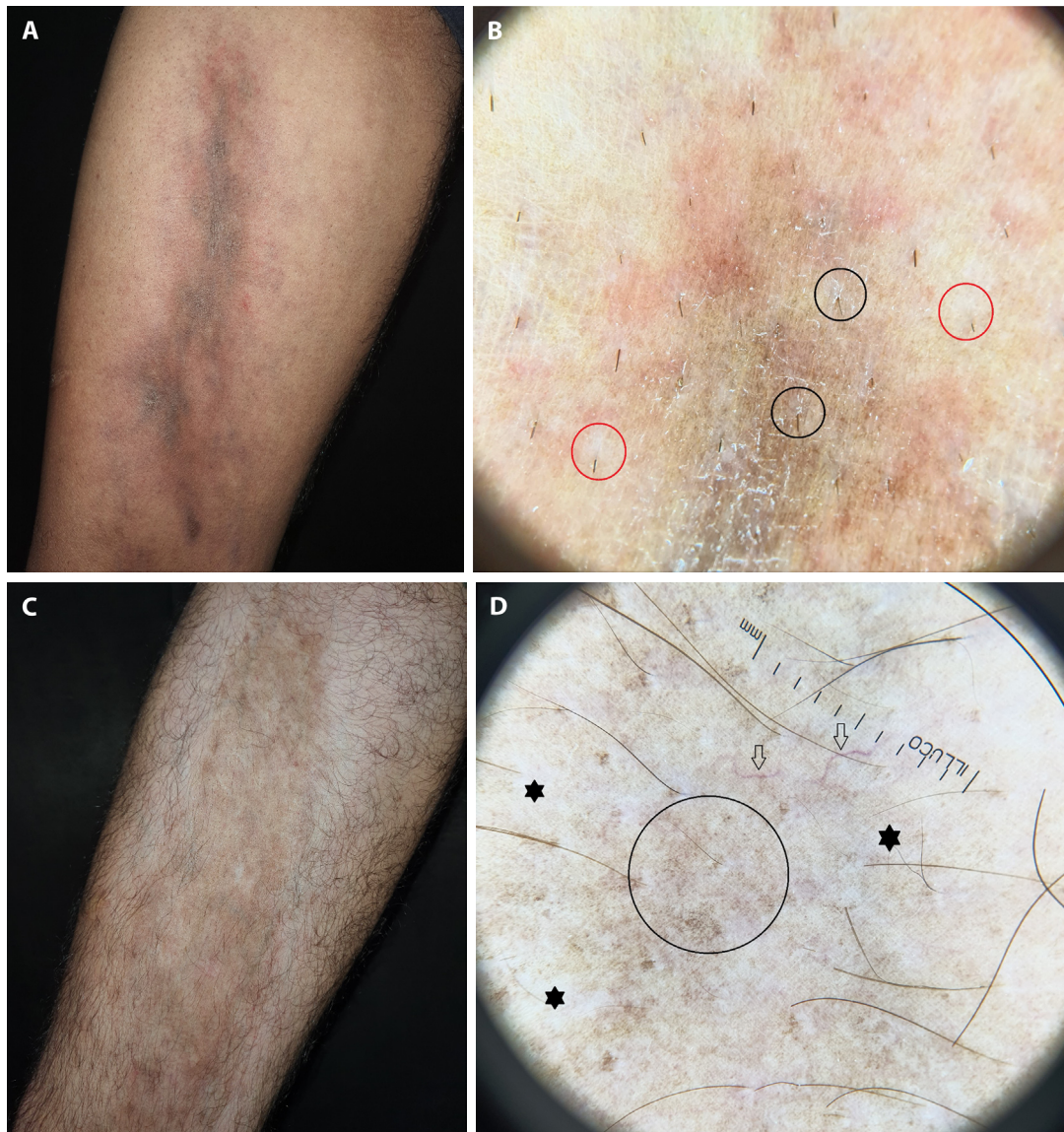


Figure 1. (A) Localized morpheiform graft-versus-host disease showing erythema and induration over anteromedial thigh. (B) Dermoscopy (Illuco IDS-1100, polarized 10x) showing background erythema, prominent pigment network, perifollicular blue-gray (black circles) and whitish structureless areas (red circles), scaling, and reduced hair-follicles. (C) Follow-up at 1-year showing completely regressed lesion with post-inflammatory hyperpigmentation. (D) Dermoscopy (Illuco IDS-1100, polarized 10x) showing telangiectasias (arrows), peppering (circle), and white structureless areas (stars).

structureless areas and appearance of peppering signified adequate treatment response in our patient.

References

1. Kaminska-Winciorek G, Zalaudek I, Mendrek W, Jaworska M, Gajda M, Hołowiecki J, Szymaszal J, Giebel S. Dermoscopy of Cutaneous Graft-Versus-Host-Disease in Patients After Allogeneic Hematopoietic Stem Cell Transplantation. *Dermatol Ther (Heidelb)*. 2020;10(5):1043-1061. DOI: 10.1007/s13555-020-00423-6. PMID: 32676797. PMCID: PMC7477036.