## Resolution of refractory systemic lupus erythematosus-associated alopecia with anifrolumab: a case report

Sirs,

We report the case of a patient with systemic lupus erythematosus (SLE) presenting with refractory alopecia and haematological manifestations, including thrombocytopenia, successfully treated with anifrolumab. SLE is a chronic autoimmune disease with multisystem involvement and highly variable clinical presentations (1). Among cutaneous manifestations, alopecia poses a particular challenge for rheumatologists, especially in refractory cases, as it substantially impairs patients' quality of life. Few therapies have demonstrated consistent efficacy for alopecia in SLE (2), and current ACR/EULAR guidelines provide no specific recommendations (3). Anifrolumab, a monoclonal antibody targeting subunit 1 of the type I interferon receptor (IFNAR1), has recently been approved for SLE management (4-5); however, data on its effectiveness for alopecia remain limited.

A 59-year-old woman diagnosed with SLE in 2005 presented to our clinic in 2019 with worsening non-scarring alopecia, chronic cutaneous lupus, and thrombocytopenia (platelet count <50,000/μL). Laboratory evaluation revealed ANA 1:640 (homogeneous), anti-dsDNA and anti-SSA positivity, along with hypocomplementaemia. Previous therapies included corticosteroids, hydroxychloroquine (HCQ), cyclosporine, rituximab, and methotrexate.

Disease activity scores were as follows: SLEDAI-2K 9, Physician Global Assessment (PhGA) 2, CLASI 8, and Lupus impact tracker (LIT) 65. Despite prednisone escalation to 1 mg/kg/day and temporary IVIG therapy, thrombocytopenia persisted, accompanied by severe psychological distress due to progressive hair loss. Belimumab (200 mg sc every four weeks) was added with limited benefit.

Given the refractory course, anifrolumab (300 mg IV every 4 weeks) was initiated in combination with HCQ (5 mg/kg/day). By day 28 (second infusion), the patient reported no adverse events and an overall improvement in health status. Alopecia extent decreased (CLASI 3), with SLEDAI-2K reducing to 2 (alopecia only). By week 8 (third infusion), hair regrowth was evident across all scalp quadrants, with CLASI of 0. At three months, alopecia had completely resolved, and overall disease activity remained low (SLEDAI-2K 2). At six months, the patient maintained remission on a stable low-dose prednisone regimen (2.5 mg/day). Laboratory tests were unremarkable except for mild hypocomplementaemia; SLEDAI-2K was 2, PhGA 0, LIT decreased from 65 to 12.5. Notably, the patient regained confidence, significantly improving her quality of life and psychological well-being (Fig. 1). This case highlights the multidomain efficacy of anifrolumab in refractory SLE manifestations, including alopecia and thrombocytopenia, the latter consistent with recent literature (6). While pivotal trials such as TULIP-1 and TULIP-2 focused primarily on global disease activity and skin manifestations (7), real-world evidence for specific manifestations, such as alopecia, remains limited. Our report supports the potential role of anifrolumab as an effective therapeutic option for difficult-to-treat cutaneous features in SLE, providing an important tool for managing refractory patients.

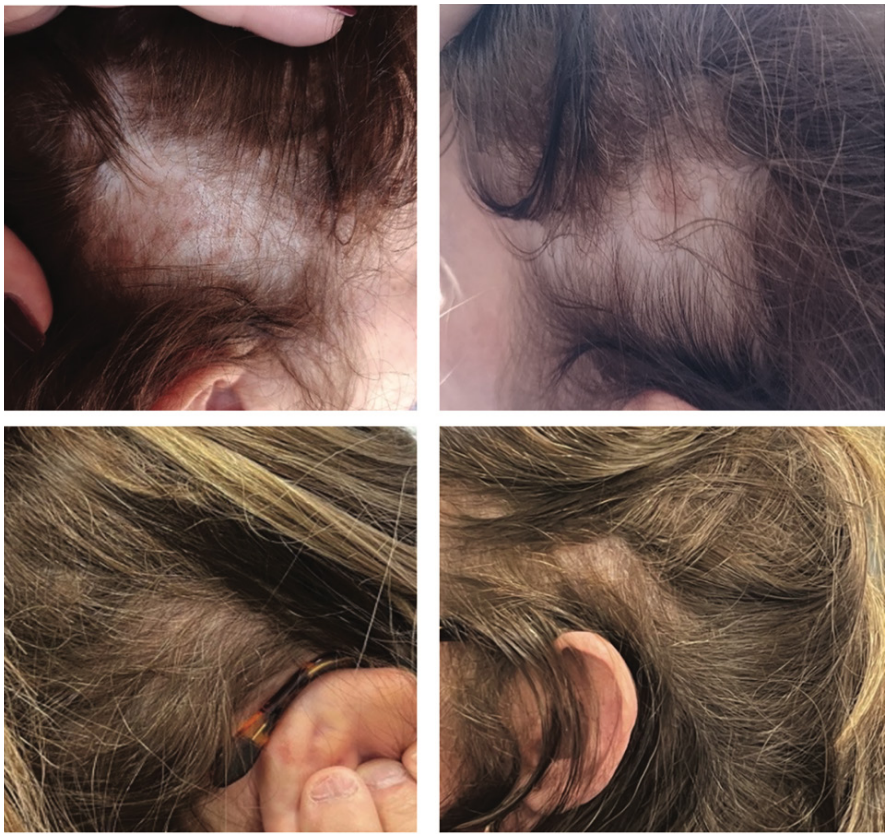

**Fig. 1.** Resolution of alopecia after treatment with anifrolumab.
Representative image of the patient's alopecia before treatment (upper images) and after 6-month treatment with anifrolumab (lower images).

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