HAIR DISORDERS

SUCCESSFUL TREATMENT OF ALOPECIA AREATA TOTALIS WITH TOFACITINIB

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Background: Alopecia areata is one of themost prevalent autoinmune diseases with 1.7% lifetime risk. The cause of alopecia areata is multifactorial, including an immune-mediated destruction of hair follicles in conjunction with genetic predisposition. There are currently no US Food and Drug Administration-approved treatments for alopecia areata, and treatment regimens are empiric, although topical, intralesional, and systemic steroids are commonly offered. Here we report a case notable for the efficacy of tofacitinib in a patient with alopecia totalis.

Observation: A 54-year-old man with personal records of hypercholesterolemia, high blood pressure and currently treated with atorvastatin and fenofibrate came to our clinic. The patient had a 3-year history of alopecia areata and progression to alopecia totalis 1 year prior. Previous treatments included topical and intralesional steroids, topical minoxidil, prednisone and dyphenciprone without significant improvement. There was no family history of alopecia areata. On examination, the patient had tattoed black macules on the scalp without hair and sparse eyebrows and eyelashes. The patient was started on tofacitinib, 5 mg twice daily and by 3 months, he had significant regrowth. At 10 months, the patient has recovered up to 75% of his original scalp hair with no remarkable side efects or laboratory abnormalities.

Key message: The immune pathways required for autoreactive T-cell activation in alopecia areata are not defined limiting clinical development of rational targeted therapies. Tofacitinib is a selective JAK (Janus kinase) inhibitor 1 and 3 and a promising therapeutic option for alopecia areata. This case report demonstrated exceptional efficacy of oral tofacitinib in severe and refractory alopecia areata totalis. However, well-controled prospective studies are needed to determine long-term efficacy, safety, and cost-effectiveness, as well as to elucídate undisclosed mechanisms responsable for hair growth.