Letter in Reply: Alopecia areata after SARS-CoV-2 vaccination

To the Editor: We found the case series published in February 2022 in the journal by Scollan et al[1] concerning the development of alopecia areata (AA) following SARS-CoV-2 vaccination to be informative. We want to reinforce these findings through a patient encounter, where AA developed in an elderly woman after she had received the SARS-CoV-2 vaccine. She was successfully treated with topical tacrolimus with minoxidil, as well as intralesional triamcinolone acetonide.

A 61-year-old-woman with no history of systemic disease presented for evaluation of patches of alopecia 1 week after receiving the second dose of the Pfizer SARS-CoV-2 vaccine in April 2021. She denied any other symptoms, cutaneous or systemic, after the vaccination. Physical examination at presentation revealed 4 areas of patchy hair loss localized to the scalp (Fig 1, *A*). Two punch biopsies were taken, revealing follicular miniaturization, a marked catagen/telogen shift, and a peribulbar, predominantly lymphocytic inflammatory infiltrate, confirming the diagnosis of AA (Fig 2, *A* and *B*). The patient was started on treatment with topical fluocinonide 0.05% solution and topical minoxidil for 1 month followed by topical tacrolimus 0.1% ointment and minoxidil 5% solution for an additional 5 months. Intralesional triamcinolone acetonide 2.5 mg/cc was administered once a month for 3 consecutive months.

Improvement was seen 1 month after treatment with full hair growth in all 4 areas at the 4-month follow-up (Fig 1, *B*). No relapse in hair loss was observed after the patient received the Pfizer booster vaccine in October 2021 or at the 8-month follow-up in December 2021.

AA is predominantly an idiopathic disease of the younger age group (21-40 years).[2] However, a possible connection between vaccines and autoimmune diseases, including alopecia, has long been suspected.[3] Our case further suggests that AA can develop in the elderly following messenger RNA SARS-CoV-2 vaccination and reinforces the possibility that Moderna and Pfizer vaccines may trigger a T cell-mediated immune response. In addition to the observations by Scollan et al,[1] we show the development of AA in a patient with no personal or family history of AA or other autoimmune diseases, including thyroid dysfunction. Our patient presented with a more limited and milder disease presentation compared with the previously reported cases.[1,4] Furthermore, the use of systemic drugs, including tofacitinib citrate, were not necessary, and topical tacrolimus with minoxidil proved to be an effective treatment option. As such, SARS-CoV-2—induced alopecia can have a limited disease progression. In such cases, topical tacrolimus with minoxidil can be effective, minimizing the usage of topical steroids.

Fig 1. A, Clinical photograph of the patient's scalp demonstrating alopecia areata at the initial visit. **B,** Clinical photograph of the patient's scalp demonstrating full hair growth following treatment at the 4-month follow-up.

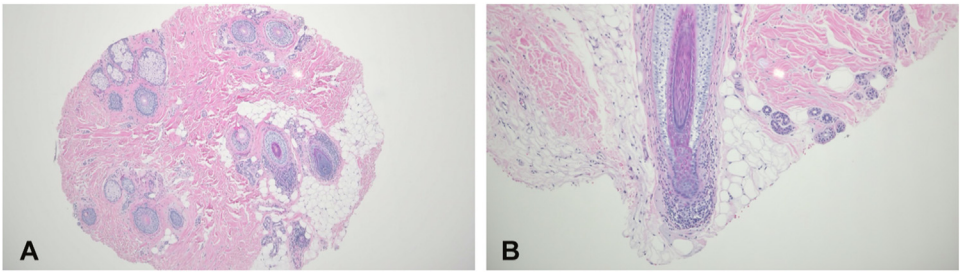

Fig 2. A, Horizontal section showing follicular miniaturization, a marked catagen/telogen shift, and a peribulbar, predominantly lymphocytic inflammatory infiltrate (hematoxylin-eosin stain; original magnification: ×40). **B,** Vertical section showing a peribulbar, predominantly lymphocytic inflammatory infiltrate (hematoxylin-eosin stain; original magnification: ×100).

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Conflicts of interest

None disclosed.

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