

Alopecia Areata after COVID-19 vaccination

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Background:

COVID vaccines were shown to be generally safe but were linked to side effects affecting different systems in certain individuals including the integumentary system. We report a case of alopecia areata after COVID vaccine.

Case:

A healthy 51-year-old African American man with no past medical history presented to the internal medicine clinic with hair loss. Few days after he received the Pfizer-BioNTech COVID-19 Vaccine (BNT162b2), he developed a progressive hair loss creating empty patches of skin on his head and beard, that was associated with pruritus and burning. He noticed that his hair detaches easily on minimal hair pull. There was no skin rash, nail changes or teeth problems.

He never has had problems with hair loss in the past, and there was no family history of hair loss, thyroid disease or rheumatological disorders. He was not taking any medications, anabolic steroids or any other supplements. Patient was only sexually active with one partner in the past 6 months and denied any history of sexually transmitted diseases.

Vitals signs were normal. Physical examination showed multiple circular patches of hair loss distributed all over the head, without any skin changes like scarring, thickening or discoloration (Picture 1), along with similar patches on his beard. Investigations showed Hb of 16.6, TIBC of 314, Iron of 85, TSH of 1.14, negative treponemal antibody test. Patient was referred to dermatology and underwent skin punch biopsy which showed alopecia areata. Patient was treated with intralesional triamcinolone injection, with gradual recovery and regrowth of his hair over the next few months.

Discussion:

Alopecia areata results from autoimmunity against hair follicles resulting in nonscarring patches of complete hair loss (1). Vaccines has the potential to cause side effects through activation of the immune system in genetically predisposed patients (2). Onset or worsening of alopecia areata after COVID vaccine has been described by some reports in the literature (3). The shared features between the cases are the absence of other secondary causes, and the temporal relationship between the vaccine and the development of alopecia. The condition is highly responsive to local or/and systemic steroids in most cases (4).

Conclusion:

Alopecia areata could be one of the relatively rare side effects of COVID-vaccine.