

Long-term result of hair transplantation for therapy resistant alopecia areata of eyebrows

Sir,

Alopecia areata is a common autoimmune skin disorder with an unpredictable clinical course. Hair transplantation is one of the therapeutic choices for treatment resistant alopecia areata of the eyebrows.^{1,2} There is also very little information on the use of hair transplantation for alopecia areata in literature.^{3,4} In this letter, we present the long-term result of a previously reported case who was treated with hair transplantation for therapy-resistant alopecia areata affecting both eyebrows.¹

A 24-year-old male patient was treated with hair transplantation for therapy-resistant alopecia areata affecting both eyebrows in 2007. At the time of hair transplantation, he gave a history of development of alopecia universalis in 2004. His alopecia areata began 4 years previously in the form of small patches of alopecia in 2000. He had been treated with systemic corticosteroids and this was followed by psoralen and ultraviolet A (PUVA) therapy. He reported that all body and scalp hair had regrown with PUVA within a duration of 1 year. Alopecia areata involving his eyebrows did not regrow by using topical or intralesional corticosteroids, topical anthralin, and minoxidil. Eyebrow alopecia areata had been stable for 2 years and did not respond to above treatment modalities and this condition affected his quality of life to a great extent. Dermatological examination revealed alopecia involving both eyebrows without atrophy. Scalp and other body hair were present and was normal. Laboratory investigations were normal. Investigations done to rule out autoimmune disorders like diabetes, thyroid disorders, and pernicious anemia were normal. The patient was diagnosed to be resistant to medical treatment; hence hair transplantation was considered to be the best option available. As eyebrow alopecia was stable for 2 years and hair pull test was negative, disease process was considered to be inactive and hence biopsy was not performed. Eyebrow replacement therapy with follicular unit extraction (FUE) technique using 425 hair grafts harvested from occipital region (which contains normal scalp hair not affected by androgenetic alopecia), was performed for the treatment of this patient in 2007. Hair regrowth rate was 80% without use of

any topical or systemic therapies for alopecia areata at the end of the 24th postoperative month. We published this result in 2010.¹ However, the patient presented with the complaint of double eyebrow appearance due to regrowth of his original eyebrows without use of any topical or systemic therapy for alopecia areata at the end of 3rd postoperative year [Figure 1]. We decided to wait for at least 1 year to conclude that clinical course of the disease was stable and following that period we were planning to remove the transplanted hair by using laser epilation. Ten years following first episode of hair loss our patient displayed spontaneous regrowth of his original eyebrows. The resulting appearance of double eyebrow caused embarrassment for our patient and created a potential therapeutic problem. However, at the end of 12 years of disease (postoperative 5 years) in total the clinical outcome of the patient was the loss of all eyebrow and scalp hair [Figure 2].

This case clearly shows that waiting for about 2 years is not enough to decide on any form of surgical intervention for the treatment of therapy-resistant alopecia areata. The effect of transplanted hair grafts on alopecia areata is not known, but this case shows that regrowth of original eyebrow in transplanted area or recurrence of alopecia areata even affecting transplanted hair is possible. If hair transplantation is to be performed the shape and size of the eyebrow should be reconstructed according to the original size and shape of eyebrows of the patient to prevent double eyebrow appearance as observed in our case. However, the loss of transplanted hair grafts in long-term follow-up of our case proves that hair transplantation is not the right choice for the treatment of therapy resistant alopecia areata.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given his consent for her images and other clinical information to be reported in the journal. The patient understands that his name and initial will not be published and due efforts will be made to conceal his entity, but anonymity cannot be guaranteed.



Figure 1: The patient presenting with the complaint of double eyebrow appearance at the end of third postoperative year



Figure 2: At the end of postoperative 5 years the patient lost all eyebrow and scalp hair

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Conflicts of interest

There are no conflicts of interest.

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