

Successful Outcome of Follicular Unit Extraction in a Patient with Alopecia Due to Hansen's Disease

Dear Editor,

A 22-year-old male approached dermatology outpatient department with complaint of decreased hair growth over left cheek when compared with the right side. Detailed history revealed him to be a treated case of borderline tuberculoid (BT) leprosy when he had developed a red, raised patch on the same site over left cheek 7 years ago. Slit skin examination revealed a bacteriological index of 1+, and skin biopsy findings were consistent with BT leprosy. He was managed with three drugs multidrug therapy for 1 year with resolution of the erstwhile patch. However, over the next few years as he started acquiring beard hairs, a reduced hair density and growth over area of initial resolved patch was noticed. On examination, he had an ill-defined, atrophic, normoaesthetic, macular patch measuring around 4×2 cm on left cheek with overlying poor hair growth [Figure 1]. There were no thickened nerves or any other skin lesion on the body, suggestive of active Hansen's disease. A 4 mm punch skin biopsy from the patch revealed an atrophic epidermis, loss of skin appendages without any inflammatory infiltrate/granulomas/foamy cells, and negative modified Ziehl–Neelsen stain for acid-fast bacilli. After ascertaining the disease process to be inactive, follicular unit extraction (FUE) procedure was planned for hair restoration over the hypotrichic patch. Approximately 150 single hair follicle units were extracted from scalp and implanted over the recipient and affected area on the left cheek to

attain a density of around 20–25 hair follicle units/cm² area [Figure 2]. At 1-year follow up, graft survival rate was around 90% and the patient had appreciable hair growth over the recipient area without any clinical evidence of relapse in Hansen's disease activity over the recipient patch [Figure 3].

Leprosy is a disease associated with considerable physical, social, and psychological stigma. For the patient as well as the public, it is not really cured as long as its morbidity due to disabilities continues.^[1] Apart from physical disabilities, cosmetic disabilities secondary to leprosy are of significant concern for the patient, one of these being hair loss. Hair loss occurs not only as part of specific disability as madarosis in lepromatous leprosy, but also in skin lesions of tuberculoid pole due to peri-appendageal inflammation, as was seen in our patient.^[2] Scalp hairs are usually spared due to higher temperatures over scalp, but even these might be involved rarely.^[3] Cosmetic surgeries for hair restoration have been tried for madarosis in leprosy patients in the past with good outcome.^[4] To alleviate cosmetic concerns of our patient, we performed FUE procedure over the burnt-out patch of BT leprosy over his left cheek with a good clinical outcome and to our patient's satisfaction. The FUE procedure holds promise in the correction of hair loss in leprosy patients, especially if the cosmetic defects are over hair-bearing visible areas of the body, and thus can help in alleviating the stigma when used judiciously in suitable cases.



Figure 1: Ill-defined, atrophic, normoaesthetic, macular patch measuring around 4 × 2 cm on left cheek with overlying poor hair growth



Figure 2: Single follicle units extracted from scalp and implanted over the recipient and affected area on the left cheek



Figure 3: Significant hair growth over the recipient area at 1-year follow-up

Acknowledgements

We are thankful to our patient for his support and cooperation.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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Access this article online	
Quick Response Code: 	Website: www.jcasonline.com
	DOI: 10.4103/JCAS.JCAS_125_20

How to cite this article: Singh PY, Sandhu S, Neema S, Pathania V. Successful outcome of follicular unit extraction in a patient with alopecia due to Hansen's disease. *J Cutan Aesthet Surg* 2021;14:377-8.