White Hair Removal with Follicular Unit Extraction

Dear Editor,

White hairs have proven refractory to any kind of photoepilation technology because of the absence of melanin chromophore in the hair follicle. Many treatment protocols have been tried, but none of them have been effective treatment. We, herein, present a case report of a 40-year-old woman with white hair successfully removed via follicular unit extraction (FUE).

A 40-year-old woman presented for laser hair reduction of excessive hairs on sideburns. On examination, the patient had both black and white hairs with hyperpigmentation present over the sideburns due to repeated hair dye application [Figure 1]. She was started on diode laser for black hair and FUE was planned 2 weeks later for the removal of white hair.

Informed consent was obtained. Under aseptic conditions, all hairs were cut to a length of 1–2 mm. Under local anaesthesia and proper magnification, a motorised,

sharp-walled, 0.8 mm, serrated punch was used for scoring of follicles [Figure 2]. The follicles were extracted via forceps and inspected for any transection [Figure 3]. Dressing was done for 24 h and a topical antibiotic cream was given for 5 days.

A total of 116 hairs on the right side and 45 hairs on the left side were removed in three sessions at an interval of 4 weeks each [Figure 4]. The transection rate of follicle was kept below 5%. There was no regrowth, visible scarring or pigmentary anomaly present in the treated area after 5 months of the first session.

The present scenario shows an innovative method to eliminate white hair. Because of the absence of any chromophore, photoepilation is not effective in this kind of hair. Many light- and heat-based therapies have been tried for white hair removal such as use of radiofrequency,^[1] laser after colouring^[2] or use of melanin-encapsulated liposomes^[3] before laser therapy. However, none of them have proven to be an effective therapy with results varying 17%–54%.



Figure 1: Baseline photograph of the white hair present over both sideburns



Figure 2: Immediately after follicular unit extraction

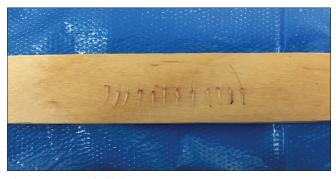


Figure 3: Intact follicles

Till date, electrolysis is considered to be the treatment of choice.^[4] There are chances of folliculitis, post-inflammation hyperpigmentation and scarring if electrolysis current is applied at too high a level. Further, since only dermal papilla is destroyed in electrolysis procedure, there are chances of regrowth from upper portions of the follicle (bulge region). Electrolysis can sometimes take up to twenty sessions for complete removal of the hair.

With FUE, provided the transection rate is kept below 10%, a complete follicle is removed leading to permanent removal of the hair in 2–3 sessions conserving both time and finance as compared to other procedures routinely used. With punch size of 0.8 mm, there are very minimal chances of any visible scarring or pigmentary anomaly. However, pigmentation cannot be ruled out completely in dark-skinned individuals. With experience, one can extract up to 2000 follicles in an hour which is much faster than any other option available for white hairs. In our opinion, FUE can become an effective, safe and fast way for removal of the white hair.

Financial support and sponsorship Nil.

Conflicts of interest

There are no conflicts of interest.

Jyoti Gupta, Kavish Chouhan, Amrendra Kumar,

C Ariganesh

DermaClinix - The Complete Skin and Hair Solution Center, D-9, Green Park Main, New Delhi, India



Figure 4: Photograph after three sessions

Address for correspondence: Dr. Jyoti Gupta, First Floor, Shivalik, New Delhi - 110 017, India. E-mail: Jkgarg12@gmail.com

REFERENCES

- Sadick NS, Laughlin SA. Effective epilation of white and blond hair using combined radiofrequency and optical energy. J Cosmet Laser Ther 2004;6:27-31.
- Alijanpoor R, Poorsattar BejehMir A, Mokmeli S. Successful white hair removal with combined coloring and intense pulsed light (IPL): A randomized clinical trial. Photomed Laser Surg 2011;29:773-9.
- Sand M, Bechara FG, Sand D, Altmeyer P, Hoffmann K. A randomized, controlled, double-blind study evaluating melanin-encapsulated liposomes as a chromophore for laser hair removal of blond, white, and gray hair. Ann Plast Surg 2007;58:551-4.
- 4. Richards RN, Meharg GE. Electrolysis: Observations from 13 years and 140,000 hours of experience. J Am Acad Dermatol 1995;33:662-6.

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

Access this article online	
Quick Response Code:	Website: www.jcasonline.com
	DOI: 10.4103/0974-2077.191642

How to cite this article: Gupta J, Chouhan K, Kumar A, Ariganesh C. White hair removal with follicular unit extraction. J Cutan Aesthet Surg 2016;9:209-10.