

Follicular Unit Hair Transplantation: Current Techniques

Jiménez Acosta*

Department of Surgery, Chung-Ho Memorial Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan

Abstract

Both men and women experience hair loss, which has a significant impact on psychosocial functioning and psychological well-being for many people. There are very few physical signs of aging that are as correlated with self-esteem and worth as this one does. For a very long time, hair has been linked to youth, vitality, and health; Additionally, the hairstyles we wear define our faces and convey information about our individual personalities.

Keywords: Androgenetic alopecia • Follicular unit excision • Follicular unit • Hair follicle • Hair grafting • Hair transplantation • Scarring alopecia • Strip harvesting

Introduction

Hair loss can be a crippling condition, particularly for people who already suffer from chronic underlying medical conditions that make hair loss treatment more difficult. Scarring alopecia affects 7% of hair loss clinic patients. Scarring alopecia and the evidence-based practices for hair transplantation in scarring alopecia are discussed in this article, along with the difficulties that scarring alopecia presents in the treatment of hair loss [1]. Follicular unit transplantation, in which follicular units are the sole structures utilized as hair grafts, is the foundation of modern hair restoration surgery. In the first of this two-part review, we explain how the methods used in hair transplantation have changed over time. The distribution and ex vivo morphology of scalp follicular units, among other anatomical concepts of particular relevance to dermatologists, are discussed. The most common causes of hair loss consultations with dermatologists are male androgenetic alopecia and female pattern hair loss, which will be the primary focus of this review. However, this review will also discuss which scalp conditions can be treated surgically and which cannot, as not all hair disorders are suitable for transplantation. Dermatologists can use these guidelines to better determine who is a good candidate for hair transplantation [2].

Literature Review

The removal and suturing of scar tissue creates tension in the wound, which causes similar balding in that area and may necessitate harvesting and transplanting a large skin flap for treatment of scarring hair loss. Also, if there is a lot of hair loss because of scarring, a tissue expander is needed. These procedures frequently necessitate general anesthesia, and the unsightly distortion of tissue brought on by tissue expansion may result in emotional distress and even the formation of a substantial surgical scar. In contrast, outpatient hair transplant surgery can be performed with local anesthesia. The fact that patients themselves can choose the direction of their hairs is yet another advantage.

Hair transplant surgery is typically regarded as helpful in the management of male-pattern hair loss. Hair that is not exposed to dihydrotestosterone is transferred to the recipient site in men from the temporal and occipital regions.

***Address for Correspondence:** Jiménez Acosta, Department of Surgery, Chung-Ho Memorial Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan; E-mail: fjimenezacos@meditekna.com

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The FUT or FUE technique has recently been used in hair transplant surgery [3]. Due to the harvesting and suturing of an island-shaped skin graft, the first procedure occasionally results in the formation of a large surgical scar in the occipital region. Additionally, the harvested skin must be divided into follicular units. FUE, on the other hand, involves extracting multiple follicular units from the occipital region with a punch of 0.85–1.0 mm. Punctate scars are caused by punching, but if the hair is long enough, they can be hidden.

Discussion

Although engraftment is less effective than in normal skin due to inadequate blood flow in the graft bed, surgical scars have demonstrated the utility of hair transplant surgery. Due to issues with blood flow, a recent study suggests that when treating scarring hair loss, transplanting more than 30 grafts/cm² should be avoided. In a similar vein, due to the unpredictability of the area's blood flow, we carried out a preliminary hair transplant with 100 grafts and a maximum of 30 grafts/cm² in the skin graft site with bald split-thickness [4-6]. After confirming complete engraftment and, consequently, adequate blood flow in the graft bed, we successfully completed the remaining parts of the hair transplant. As a result, the absence of dense packing a density of more than 30 grafts per cm² and the likely abundance of blood supply from the temporal fascia are to blame for the favorable engraftment that was observed in this instance. Our patient is happy with the result, but if a patient wants thick hair, the first transplant should be done with fewer than 30 grafts per cm², and the second transplant should be done more than a year after the first one to give scar tissue and damaged blood vessels time to heal. For a free microvascular latissimus dorsi flap, previous studies have demonstrated the value of hair transplant surgery at the site of a full- or split-thickness skin graft. On the other hand, this is the first time FUE hair transplant surgery has been performed at the site of split-thickness skin grafts with good results for both the donor and recipient sites.

Conclusion

Our study shows that the relatively simple procedure of grafting using single follicular unit from the patient's scalp was an efficacious therapy chronic non-healing wound of RDEB and may provide a new treatment for non-healing wounds of RDEB. However, our result is based on a single case.

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Conflict of Interest

The author shows no conflict of interest towards this manuscript.

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