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Article *in* Open Access Macedonian Journal of Medical Sciences · June 2018

DOI: 10.3889/oamjms.2018.096

ID Design Press, Skopje, Republic of Macedonia
Open Access Macedonian Journal of Medical Sciences. 2018 Jun 20; 6(6):1095-1097.
https://doi.org/10.3889/oamjms.2018.096
eISSN: 1857-9655
Case Report

Recycling of Previously Transplanted Hair: A Novel Indication for Follicular Unit Extraction

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Citation: Mohebipour A, Gianfaldoni S, Lotti T, Ramirez-Fort MK, Lange CS, Sadeghi-Bazargani H, Wollina U, Tchernev G, Feily A. Recycling of Previously Transplanted Hair: A Novel Indication for Follicular Unit Extraction. Open Access Maced J Med Sci. 2018 Jun 20; 6(6):1095-1097. https://doi.org/10.3889/oamjms.2018.096

Keywords: androgenetic alopecia; Hair transplantation; follicular unit extraction; hair density; efficacy

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Received: 01-Feb-2018; **Revised:** 20-Feb-2018; **Accepted:** 27-Feb-2018; **Online first:** 17-Jun-2018

Funding: This research did not receive any financial support

Competing Interests: The authors have declared that no competing interests exist

Abstract

BACKGROUND: Hair transplantation has enhanced the realm of procedural dermatology. Before the advent of follicular transplantation, androgenetic alopecia was a difficult disease to manage, as there is a limited armamentarium of topical and systemic pharmaceuticals. However, as with other novel surgical procedures, there is a steep learning curve, that may result in poor transplantation or cosmesis.

CASE REPORT: We present a case of androgenetic alopecia, where previously, poorly implanted hairs were recycled by follicular unit extraction to increase hair density at the vertex of the scalp, which resulted in improved cosmesis and patient satisfaction.

CONCLUSION: We have demonstrated that re-transplantation is not only feasible but is effective; therefore redesigning of previous transplantations should be considered as a possible indication follicle unit extraction, particularly in the setting of scarce follicular reserves. The utility of our recycling method may also inspire hope in patients that have undergone failed or unsatisfactory hair transplantations.

Introduction

Androgenetic alopecia is a very common condition in adult men. Hair transplantation is considered an effective treatment. The technique involves harvesting hair grafts from a donor area, mainly the scalp, and relocating the harvested follicles to an area of alopecia (e.g. receding hairline). In recent years, great progress has been made in hair transplantation, with the use of the follicular unit extraction and transplantation method. Follicular unit extraction rapidly becomes a popular technique for hair transplantation as it lacks the major drawbacks of strip harvesting, and can provide highly aesthetic results [1] [2].

Creating a natural and dense hairline is considered one of the greatest surgical challenges [3] [4]. Novice surgical skills and subsequent patient dissatisfaction frequently result in consultation for transplant removal; laser ablation is commonly used for removal. However, low donor hair reserves pose a challenge for re-transplantation. Re-utilizing poorly placed transplanted hair follicles is not presented in the literature as a treatment option for patients that are dissatisfied with their transplantation procedures. We present a case of hairline design dissatisfaction that was referred to our clinic two years after follicular transplantation.

We recycled the previously implanted hair follicles and relocated them to improve cosmesis and achieve patient satisfaction.

Case Report

A 26-year-old man presented to our hair transplant clinic for consultation. The patient had undergone hair transplantation two years prior, for type-seven androgenetic alopecia. He was not satisfied with the results of his transplantation; he was particularly dissatisfied with his transplanted hairline. The patient was originally referred to our clinic for laser hair removal of the transplant.

Figure 1: Extraction of follicles with punches

However, due to the patient's poor follicular reserves, he was offered a revision operation to re-transplant a portion of the previously misplaced hair follicles.

Figure 2: The extracted follicles are recycled and re-implanted in the vertex area of the scalp

After obtaining informed consent, a re-transplantation procedure was performed. The procedure was performed by the clinical standards of follicle unit extraction (F.U.E): 0.9 mm punches were used, and 32 grafts were obtained from the previously transplant area (Fig. 1). The extracted follicles were recycled and re-implanted in the vertex area of the scalp (Fig. 2). Five months after the revision surgery, 26 out of 34 implanted follicles grew successfully, resulting in an appropriate hairline and complete patient satisfaction (Fig. 3).

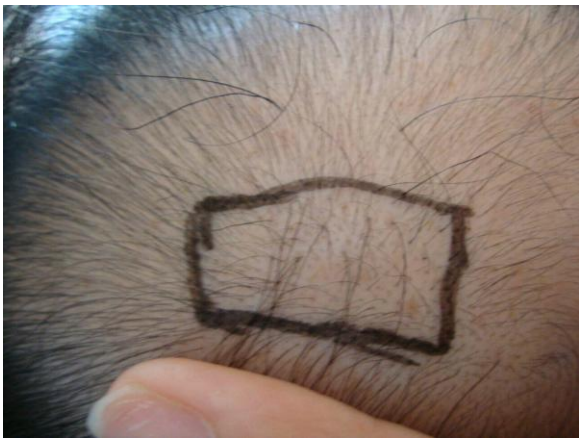

Figure 3: The patient five months after the treatment

Because of the good results, we performed, two other sessions of hair transplant, the first one just after the control and the second one six months later. Each time, we worked in the same modality of the first surgical procedure.

A control five month after the third surgery, showed excellent results regarding hair density (Fig. 4).

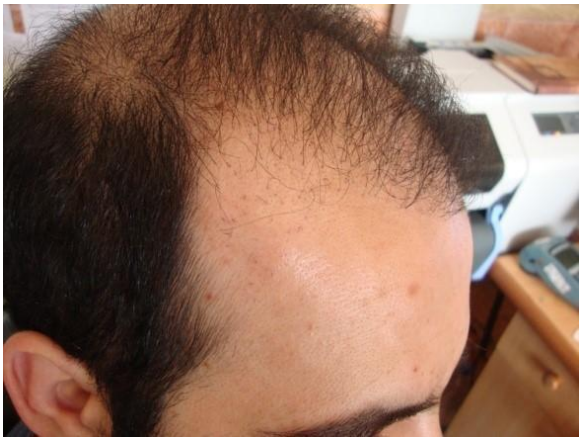

Figure 4: Our patient five months later the third hair transplant

Discussion

Patients and physicians alike are usually pleased with the results of contemporary hair transplantation, so much so that physicians can now recommend the procedure without reservation.

However, this does not guarantee complete patient satisfaction. Therefore, management strategies for dissatisfied patients should be developed and standardised [5]. Frontal hairline cosmesis is most critical in achieving patient satisfaction. A hairline placed too low will result in an unnatural appearance. Many dermatologists use laser hair removal procedures to amend improperly designed hairlines, which results in wastage of viable hair follicles. Herein we describe that transplanted hair follicles can be safely and effectively recycled for re-implantation.

The possibility of complications is associated with any surgical procedure. However, we did not encounter any adverse events in the above presentation. Nonetheless, patients should always be counselled on the potential risks associated with the recycling of pre-implanted follicles [6]. A major concern in recycling transplanted follicles may be that such follicles may lose viability for re-transplantation.

Lower follicular reserve at donor sites is considered to be a challenge, especially in primary hair transplantation, and should be particularly taken into account in the re-implantation setting [7] [8]. We have demonstrated that re-transplantation is not only feasible but is effective; therefore redesigning of previous transplantations should be considered as a possible indication F.U.E., particularly in the setting of scarce follicular reserves. The utility of our recycling method may also inspire hope in patients that have undergone failed or unsatisfactory hair transplantations.

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