

Pearls in Dermatology

Hair restoration with direct hair implantation

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Androgenic alopecia in man or male pattern alopecia is recognised having serious psychological and social impact on man. The need of hair restoration is tremendous. Various hair restoration methods are available, ranging from medical to surgical means. Surgical hair restoration remains the most predictable method. Up to date, single follicular transfer by means of direct hair implantation provides the best aesthetic result.

Keywords: Direct hair implantation, Hair restoration

Introduction

With the increasing awareness of the psychological and social impact of male pattern alopecia,¹ intervention is warranted. According to the International Society of Hair Restoration Surgery, the extrapolated world-wide number of hair restoration patients in 2004 was 211,770 for non surgical patients and 149,307 for surgical procedures done in 2005.² Pharmacotherapy is now available to retard, stop or even partially reverse hair loss. However the tolerance and the results are variable. Surgical hair restoration is the ultimate means in treating complete baldness. It has been greatly evolved in the past few decades.

Methods available ranges from scalp reduction,³ scalp flap surgery,⁴ mini-grafting and the latest follicular unit transfer.⁵

Pre-treatment assessment

It is important to evaluate the man's expectation. The aim is to provide an age-face match natural appearance.⁶ Since the transplanted hair does not fall off⁷ as easily as the rest in the hairline and crown, one has to avoid implanting the hairline too low which makes the man looks strange when he become 50 years old. Another important consideration is the amount of hair possible for donation without causing conspicuous thinning of hair. In fact this is one of the major factors that limits the number of hair available for implantation. We have to inform the client that about 10% of scalp hair is in telogen phase at any time and the chance of extracting these hairs is also 10%, which will result in delay of hair growth or not growing at all for those transplanted hair follicles.

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Method

The hairline design, area of scalp to be treated and the size of the donor site will be finalised on the day of surgery. Donor site hair will be shaved to 1 mm in length to facilitate the harvesting. A 0.8 mm to 1.25 mm punch is used to harvest hair follicles (Figure 1) one by one under magnifying loops. The wounds at the donor site (Figure 2) will heal with secondary intention. The donor site scar will not be apparent in 1 week (Figure 3). Each hair follicle will be further trimmed to the smallest possible unit for easy implantation. The donor site will be dressed with antiseptic solution. Incision will be made on the recipient area as planned. A direct hair implantation patented implanter is used to load and insert the hair follicles into the pre-made incision so as to minimise trauma to the hair follicle. With this implanter, the depth of insertion and the direction of hair can be tightly controlled. Pitting scars will be resulted if the hair follicle is inserted too deep into the scalp skin. Neither bandage nor dressing will be required for the recipient site. The grafts will be secured within one week and the client is allowed to wash his hair after one week. It takes

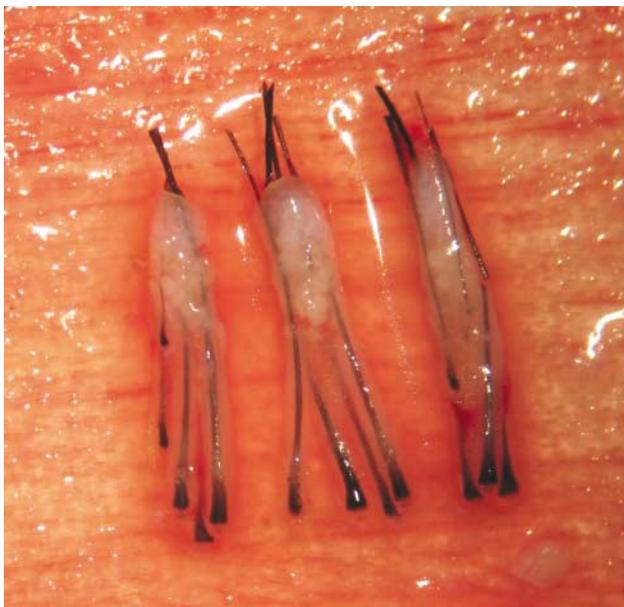


Figure 1. Follicular hair units.

eight months to have 80% of the final results and 18 months to have the full result.

Complication

The most common complication in doing scalp surgery is bleeding. Client is advised to stop Chinese herbal medicine and Aspirin if there are no contra-indications. High blood pressure has to be controlled before operation. Smoking is advised to stop before surgery in order to achieve optimal results.

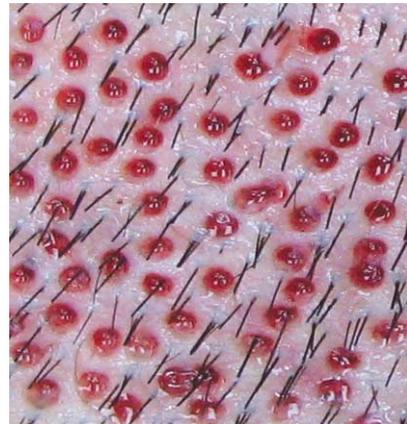


Figure 2. Donor sites on magnification.

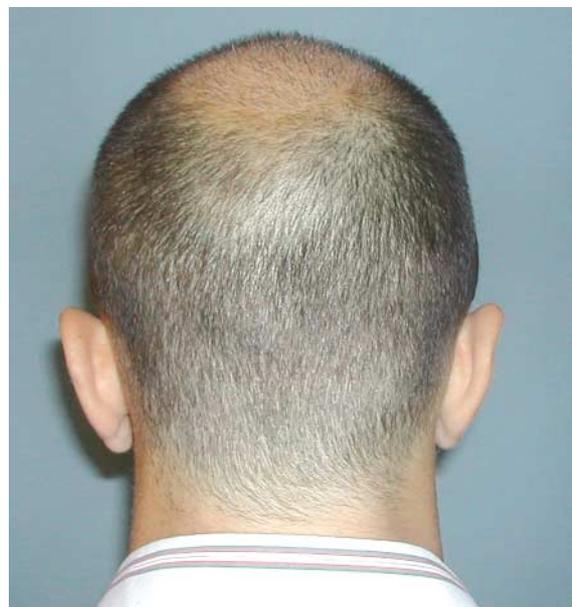


Figure 3. Donor site appearance in one week.

Conclusion

Hair transplantation is the ultimate treatment of male pattern alopecia where the area of scalp come to complete baldness. Direct hair implantation is a minimal invasive surgical method producing an inconspicuous donor site scar and most natural looking hair style.

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