

A new approach to treating scarring alopecia by hair transplantation and topical minoxidil

Sir,

The term “scarring alopecia” implies the potential of permanent destruction of hair follicle. Scarring alopecia occurs in otherwise healthy men and women of all ages and is seen worldwide.^[1,2] Most likely it is caused as a result of irreversible damage to the epithelial hair follicle stem cells in the region of bulge.^[3,4] It consists of diverse group of rare disorders that destroy the hair follicle, replace it with scar tissue, and cause permanent hair loss. In some cases, the hair loss is gradual, without symptoms, and is unnoticed for long periods. In other cases, the hair loss is associated with severe itching, burning and pain and is rapidly progressive. The inflammation that destroys the follicle is below the skin surface and there is usually no “scar” seen on the scalp. Affected areas of the scalp may show a few signs of inflammation, or have redness, scaling, increased or decreased pigmentation, pustules, or draining sinuses. Treatment of the lymphocytic group of scarring alopecia’s involves the use of anti-inflammatory medications such as steroids, cyclosporine, and hydroxychloroquine. When hair follicles get destroyed, hair will not grow back. However, in some cases, using minoxidil solution can help to stimulate the growth of some of the remaining hair. Hair transplant could only be used in patients who have normal healthy hair in donor area.^[5] Scar revisions with/without a tissue expander and flaps are the major surgical procedures for scarring alopecia, and there have been few reports on hair transplantation into scar tissue. There is an apprehension of a lower survival rate of donor hair for scarring alopecia due to a poorer blood supply. However, hair transplantation can also show good results by using appropriate techniques and guidelines.^[6]

We have used follicular unit extraction technique for autologous hair transplant followed by topical 5% minoxidil solution for a six-month period, in six cases, as pilot study.

Six cases (one male and five females) ranging from 15-30 years of age with multi-region or great-dimensional

scarring alopecia were treated with hair auto grafting using follicular unit extraction technique. The treatment was divided into two stages:

- Stage one surgical stage in which the hair transplantation was autogenous.
- In the second stage topical application of 5% minoxidil lotion was done on the transplanted area

All sites accepted the graft successfully. The biggest dimension of repaired alopecia was 240 cm² and the smallest was 10 cm² [Figures 1, 2]. A maximum graft



Figure 1: An 18-year-old female patient of CCSA during hair transplantation



Figure 2: Same patient after 16 weeks of topical minoxidil application

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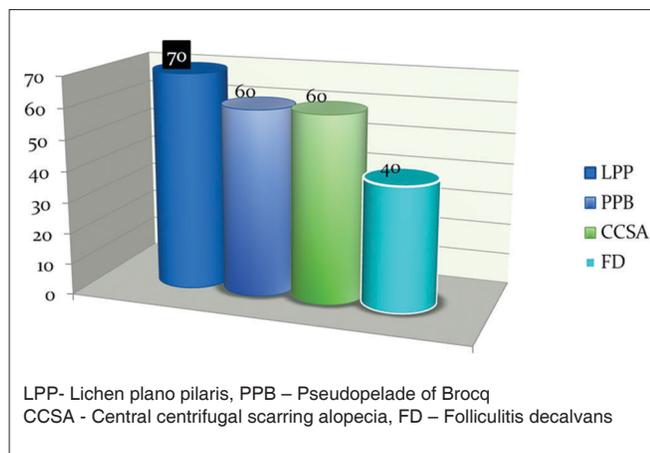


Figure 3: Percentage graft uptake in different types of scarring alopecia

uptake of 70% was seen in case of lichen plano pilaris [Figure 3]. Though there were no significant side effects observed, the normal hair direction changed in one case.

This study concludes that the combined use of hair auto grafting followed by topical minoxidil 5% appears

to be an effective method to treat irreversible alopecia.

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