

Acne scar reconstruction with hair grafts

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The Problem

Acne affects a large percentage of the population, both men and women. However, it is most prevalent in 95% of young male adolescents, where it is observed in varying degrees. In addition, acne tends to be more aggressive in men than in women due to the androgens that stimulate the production of sebum in the glands that lubricate the hair follicle.

The loss of the typical structure of the pilosebaceous follicle is usually one of the consequences of acne, and once the acute infection process goes into remission, it may leave atrophic or hypotrophic dermal scars (Figure 1).

The lesions caused by acne vary from comedones (or blackheads) to true abscesses that result in dermal and subcutaneous cell tissue injuries, leaving scarring sequelae of different severity.

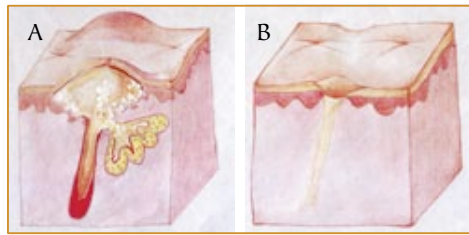


Figure 1. A: Acne necrotizing lesion; B: Acne alopecic and atrophic scars.

Solutions to Date

Most treatments for acne scars are aimed at leveling the epidermal and dermal scarring by means of dermabrasion or laser skin resurfacing. Another approach is to increase the dermal or subdermal volume using filling material injections.

Other minimally invasive surgical techniques include subcision, dermal grafting, and punch excisions of the scars.

Our New Innovative Approach

Most cases of acne scarring lesions in the beard or moustache areas leave scars with hair follicle destruction as seen in patients with scarring alopecia.

The beard hair follicle of an adult has volume in itself. The loss of this volume, when the pilosebaceous structure is destroyed by the acute inflammatory process, results in hypotrophic scars.

In these cases, follicle replacement will serve two purposes. First, it will provide epidermis, dermis, and subcutaneous volume like any other skin graft, and second, it will provide the hair shaft that will give the color and the necessary texture for the concealment of the alopecia.

Based on our experience in the use of follicular units in hair transplantation, we have learned how to deal with the delicate hair follicle structure.

Surgical Technique

The follicular unit extraction (FUE) technique is recommended. We look for hair whose quality matches the quality of the patient's beard hair, such as hair from the sideburns, thorax, pubic area, or, ultimately, hair from the scalp, since hair in this area tends to be thinner and scalp skin has less melanin, which could counteract the effect by causing residual hypopigmentation.

The implantation technique will be selected according to the existing scars. If the scar is atrophic, incisions will be made with needles or micro blades. However, if the scar is hypertrophic, a punch of 0.7-1.0mm will be used for extraction and such scarring tissue will be replaced by a hair graft (Figures 2 and 3).

We have observed that fixation of facial skin grafts is better than the one observed in the scalp. Therefore, there is little possibility of grafts popping out from their insertion incisions. It is not necessary to secure it externally; the scarring process will, on its own, adhere the transplanted tissue to the new site.



Figure 2. Acne scar at the end of the procedure.



Figure 3. Hair graft in acne scar.

The Importance of This New Approach

This approach toward acne scarring for hair transplant specialists and dermatologists is important for many reasons:

1. HT centers have the doctors and technicians, as well as the necessary materials, for immediate implementation of this technique with zero investment.
2. This is another way of recycling and attracting former patients as you can refer to the data base and find candidates for this technique.
3. The target of this new hair transplant technique is similar to the one used for androgenic alopecia—males aged 20 or older who care about their image. These acne scarring patients tend to have the same "desperation" to improve their image as the ones losing their hair.

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Conclusion

A new treatment of facial scarring alopecic lesions caused by acne in men has been introduced, based on reconstruc-

tion through hair follicle transplants to address both filling and hair restoration.

Based on our experience, patients' satisfaction has been highly rated. In most cases we have complemented this technique with fractional CO2 laser to further improve the skin surface. ♦