

Surgical Treatment of Scarring Alopecias

By Nicole Rogers, MD

Nicole Rogers, MD presented on the surgical treatment of scarring alopecias at the 2018 Patient Conference in Philadelphia, PA. She works at the Hair Restoration of the South and is on staff at the Tulane University Department of Dermatology in New Orleans, Louisiana.

Dr. Rogers began her presentation by reviewing the evolution of hair surgery. It began in 1939 with Dr. Shoji Okuda of Japan. He had 30 cases of punch grafts to treat alopecia areata, leprosy and cicatricial alopecia. Another breakthrough came in 1959, when Dr. Norman Orentreich of the United States developed a theory of donor dominance. This theory stated that hair maintained the characteristics of the area from which it comes (the hair-bearing donor area), rather than to the area in which it is transplanted (the bald recipient area). Hair transplants at this time looked like cornrows or Barbie doll hairs. Recipients were said to have picket fence hairlines.

However, the field of hair transplants took a huge step forward with the publication of a landmark paper by Dr. Bobby Limmer. In the paper, *Elliptical Donor Stereoscopically Assisted Micrografting as an Approach to Further Refinement in Hair Transplantation*, Dr. Limmer describes the use of microscopes for the separation of hair follicles. Dr. Limmer recognized that hair naturally grows in groupings of 1,2,3, and 4 hairs. These groupings are collectively called a follicular unit. He used the microscope to separate scalp tissue into individual follicular units. Dr. Paco Jimenez of the Canary Islands further refined this idea by showing in histologic samples how each follicular unit is held together by a single arrector pili muscle and the nearby sebaceous glands.

About the Hair Transplant Surgery

There are currently two ways to harvest 1-4 hair follicular units from the donor area. The first, Donor Ellipse (Strip), also known as a Follicular Unit Transplantation "FUT". The second way is through a Follicular Unit Excision "FUE".

Follicular Unit Transplantation/FUT

- Takes the largest number of follicles in the shortest amount of time
- You take the strip from the most permanent donor area
- Causes the least amount of trauma to the follicles.
- Patient may have a single linear scar, which if the strip is not taken too wide, should heal to only 1-2mm in width

Follicular Unit Excision/ FUE

- Sometimes preferred to avoid linear scar
- Good choice for men with short military cuts
- Hair regrows quickly to cover
- Limitations include: shrinking donor area, risk of thinning out the back, more trauma to follicles and risk of transection

The transplant begins by harvesting from the donor area. This is done under local anesthesia and the surgeon will remove the hair bearing skin. Most likely, the doctor will use a trichophytic closure to this

area with dissolving sutures. The donated tissue is separated into individual 1-4 hair follicular units under magnification. If using graph placement, hundreds of tiny incisions are created. After the grafts are ready, placement begins.

Typically, in 2-6 weeks patients can expect to see the grafts shed. In 2-3 months, the hair will look like it did at baseline but in 4-6 months, growth begins! After 6-12 months from surgery, most of the growth is evident. At this time, growth can be enhanced with medical therapy. If needed or desired, a second procedure could occur – but not until at least 10 months from initial transplant date.

Eligibility for Transplants

Transplants are a solid option for patients with female/male pattern hair loss, traction alopecia and radiation induced hair loss. Patients with scars from facelifts, brow lifts and brain surgery are also good candidates for surgery.

Patients with alopecia areata, active cicatricial alopecia, dissecting cellulitis, folliculitis decalvans are not candidates for surgery.

However, patients with stable central centrifugal cicatricial alopecia (CCCA), stable lichen Planopilaris and stable frontal fibrosing alopecia may be candidates for a hair transplant.

Dr. Rogers did tell patients about the role of the test transplant for patients with CCCA as determined by Dr. Valerie Callendar. In a paper, Dr. Callendar suggests harvesting 4 mm of punch grafts for CCCA and place them into areas of hair thinning. Patients should allow 4-8 months to see growth, however they must realize that this procedure may not guarantee long term growth.

To Transplant or Not to Transplant – That is the Question

When deciding whether to transplant, it's important to weigh the pros and cons. One on hand, you may receive an increase in your self-image and confidence. But, you also run a risk of recurrence and loss of grafts. This is especially risky if you are not on any medication to control your disease.

A patient and hair transplant surgeon should discuss the criteria for surgery. Dr. Rogers suggestions discussing the following items with your doctor:

- Has your disease process cooled significantly?
- Can you test transplant area or what can you do to conservatively plan?
- Are you willing to do ongoing medical therapy?
- What are your resources and expectations of the transplant?