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Celebrating 25 years!

MEETING HIGHLIGHTS

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Hair Transplantation in Women and Transgender Patients—General Rules and a Case Report

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ABSTRACT

About 15% of all hair transplant procedures are done on women, mostly using FUT (strip harvesting, microscopic dissection). Due to special anatomical conditions, not all women are candidates for hair transplantation. If the donor hair is sufficient, surgery is indicated in medium-stage and frontally accentuated androgenetic alopecia, in non-active cicatricial alopecia, and to correct a high or recessive frontal hairline. Many male-to-female transgender patients are good candidates for hair transplant surgery, and a typical case is described below. An minimally traumatic surgical technique and an experienced surgical team are crucial for a natural-looking result.

INTRODUCTION

Hair transplantation patients are mostly male; however, the percentage of female patients in our practices has increased from about 10% in the 1980s to around 15% today.

What are the reasons? Techniques have improved; the procedure is now microsurgical and less traumatic to pre-existing hair.[1,2] FUT donor scars have become almost undetectable and the results are more natural. This results in fewer complications and a shorter downtime making patients more willing to undergo surgery. In addition, hair transplantation has become publicly accepted with celebrities and athletes as role models.

Despite better techniques, hair surgery in women is still challenging. It is important for physicians, especially beginners, to be aware of special circumstances in women, such as the following:

- The tissue is finer, softer, and more vulnerable, thus it must be handled with greater care. There is more fat between hair follicles. They are often shorter and finer, which should be taken into account during dissection and recipient site creation.
- Hair shafts are often short and fragile. Careful microscopic dissection is crucial.
- FUT is the method of choice for most women who need larger graft numbers and do not want to trim their donor hair for FUE.
- The female hairline differs greatly due to the female facial proportions.
- Pre-existing hair is often present and may undergo temporary shock-loss or even be traumatized during the surgery. Two limited sessions may be better than one large session.
- Detectable improvements are harder to achieve than in patients with bald areas.

INDICATIONS AND CONTRAINDICATIONS FOR SURGERY

Androgenetic alopecia/female pattern hair loss

A diffuse thinning in the crown and vertex region is typical. However, some women also experience extensive thinning on the side, a receding hairline, and a frontal accentuation with a Christmas-tree pattern widening of the central part.

Hair transplantation is indicated if gaps (missing follicular units) or 1-hair follicular units are present in the thinning areas and relatively thicker and denser hair with multiple hairs per follicular unit is present in the donor area.

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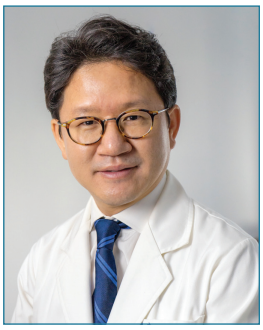

President's Message

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After returning from Prague, I have been able to think about all those who put a lot of work into making the Prague meeting special. Firstly, I would like to express a big thank you to Drs. Jean Devroye, Arthur Tykocinski, and Jerzy Kolasinski for orchestrating the great meetings held in Prague and Poland. Also, I'd like to extend thanks to Victoria Ceh, Kimberly Miller, Jule Uddfolk, Melanie Stancampiano, Katie Masini, and all other staff members from the ISHRS's headquarters. Lastly, I would like to give a huge thanks to Dr. Ken Washenik, who has done a fantastic job over the past year as president. I am grateful to have had the chance to work with him, and I am sure that many of us have greatly appreciated his work and efforts over the past year.

I am delighted that Dr. Parsa Mohebi has taken up the role of Program Chair for next year's meeting in Hollywood. Parsa is an excellent and intelligent surgeon who has been involved with the ISHRS for many years. Also, I would like to welcome Dr. Paul McAndrews to the Executive Committee as our new Treasurer; he has replaced Dr. Arthur Tykocinski, who now becomes Vice President. Dr. Paco Jimenez will continue as Secretary, and we also welcome Dr. Ricardo Meija to the Board of Governors.

During the Prague Gala, the Follicle Awards were presented to our well-deserved colleagues. The Golden Follicle Award winner was Dr. Edwin Epstein. Ed has been a huge contributor to our society as a past president, and he has served on numerous committees. Dr. Jean Devroye was presented the Platinum Follicle Award. Jean has contributed research on FUE and has advanced new FUE skills such as the Hybrid Trumpet Punch technique. In addition, the Distinguished Assistant Award winner was Anne Knudsen, RN. Anne has been involved in hair restoration for many years and has shared her skills and knowledge with a large number of surgical assistants.

For those who may not know me very well, my first hair restoration experience was 22 years ago where I observed hair surgery being done by Dr. Jung-Chul Kim during my residency. My fascination and curiosity for hair restoration grew and led to me attending my first ISHRS annual meeting in San Francisco, California, in 1999.

After attending the meeting in San Francisco, I decided to be a hair restoration surgeon. For two years, I was a fellow at the Hair Transplantation Centre of Kyungpook National University Hospital in Daegu, South Korea. During my fellowship, I performed a number of hair transplantation experiments on various body sites, such as the legs, neck, forehead, palm, and lower back. In 2002, I started my private clinic in Seoul. I have also published a number of articles. My published article regarding the recipient site influence theory was one factor in my receiving the Platinum Follicle Award in 2006. Also, I am the founder of the Asian Association of Hair Restoration Surgeons and the Korean Society of Hair Restoration Surgery.

As president, one of my important goals for this coming year is to continue to strongly support the ongoing policies and strategies regarding the unlicensed practice of medicine. I would like to urge members to get involved in supporting our policies and strategies on this issue. Furthermore, we have made it even easier for members to get involved and express their interest to serve on committees via our online Committee Volunteer form, and I encourage members to take the opportunity to serve on a committee.

At the Prague meeting, we had the highest number of physician attendees ever at 571, with a total of 741 attendees including surgical assistant categories. I hope to see more participants attend the 26th World Congress of the ISHRS, which will take place next year in Hollywood, California, and the World Live Surgery Workshop, which will take place in Dubai. I am confident that these events will be packed with many exciting things.

This year, we introduced a new smart phone application that enabled participants to find and view information on everything regarding the meeting. It had our schedule, information on guest lecturers and exhibitors, downloads of meeting material, and more. This new addition was a great benefit that we will continue to make good use of in the future.

Before I close, I would like to thank all of you for making the Silver Jubilee extra special. I am confident that our society will continue to grow strongly and that our work will be fruitful. It is truly an honour to serve in the role of President of the ISHRS for the coming year. Thank you! ■

Co-editors' Messages

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This has been a busy year full of many meetings and events. But for me, the World Live Surgery Workshop and 25th World Congress were the educational and professional highlights, offering a great opportunity to learn, exchange ideas, and celebrate our anniversary.

I was touched when Dow Stough reminded us how a group of hair surgeons dedicated to high-quality hair restoration and the use of small grafts founded our society. They wanted to improve the results for their patients and created a great platform for education, research, and collegiality.

While the number of hair restoration surgeries is at a record high, we should always maintain the highest professional standards. This includes to offer and combine various treatment options, and also to stay humble and acknowledge the limitations of hair restoration even today.

It is important to listen to experienced colleagues as they have followed their patients over decades. If we include well-proven and new treatment options into a personalized treatment plan, we will get good long-term results for our patients. We as physicians must keep control of the entire process—from the consultation to the surgery to the medical treatment over the years. This is ultimately the best way to face the challenges our specialty is facing in the digital age. With our society as a reliable network, we can be optimistic.

This issue highlights the value of FUT strip surgery in female and transgender patients with long hair. Even a combination of long hair FUT and FUE in one surgery is possible if a large, experienced team is available. Follicular unit extraction is not a simple procedure, as explained in Parsa Mohebi's article.

I am sure many of you have valuable ideas and concepts to present and share. Please send in your abstracts, articles, case reports, and remarks to forumeditors@ishrs.org for consideration of publication in the *Forum*. ■

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It is amazing how our meetings improve year after year. Prague was no exception. The physician and assistant faculty, ISHRS staff, and audio-visual experts have honed their skills to present an almost seamless flow of information and social events from registration to the gala celebration. The intricate planning process starts more than a year before the event and involves many small pieces to create the whole. Congratulations to Victoria Ceh, Jean Devroye, and Ken Washenik for assembling a team based on the skill of its players, putting the right people in positions to ensure success and present a fair, balanced, and extensive review of our specialty. I'm sure our current program chair, Parsa Mohebi, will continue the tradition as we go west to California in 2018. Good luck, Parsa.

Throughout our history, the newest hair transplantation technique eventually replaced the old. Now two acceptable techniques, FUE and FUT, co-exist. Surgeons who have performed FUT for many years see the value of FUE and the way it expands the boundaries. Most now offer both procedures and many perform 50% FUE and 50% FUT. FUE has expanded rapidly and appears to be the procedure of choice for those starting a new practice. The 2017 ISHRS Practice Census reveals that the most common method of hair transplantation is FUE harvesting (53%) followed by FUT (44%). I am worried about practices that only offer FUE.

In this issue, two timely articles reflect the current situation. Fernando Basto presents his combination technique that blends the FUE and FUT skills of a modern hair transplanter to effectively treat extensive hair loss. Frank Neidel reviews the indications and use of hair transplantation in women and presents an excellent result in a case report of a transgender patient using FUT. Keep in mind, one-quarter (27.3%) of ISHRS members reported an increase in transgender hair transplants in 2016. Dr. Neidel states: "FUT is the method of choice for most women who need larger graft numbers and do not want to trim their donor hair for FUE." To keep the best interests of our patients at the forefront, we should offer the appropriate procedure, which means being proficient and able to get excellent results with both FUE and FUT.

This is the last issue of our first year as co-editors. It has certainly been a challenge, a privilege, and a learning experience to clarify, verify, simplify, and organize the ideas of our fine specialty. It has also been a pleasure working with the columnists and Andreas. Thanks to all who have contributed. In this issue you will find our last ISHRS 25 section. Please read the recollections of four physicians who have contributed greatly to our society over the last 25 years: Robert Haber, Bob True, Walter Unger, and Bobby Limmer.

I look forward to the next 25 years. ■

Notes from the Editor Emeritus, 2002–04

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The 25th World Congress of the International Society of Hair Restoration Surgery is officially over. Ken Washenik finished his year of presidency with the class and style that we have come to expect from him. There was a great deal of pride in having had him as president. Jean Devroye spent a busy year preparing for his role as Program Chair. These programs didn't just fall together; rather, they took a lot of thought and organization from Jean and the organizing committee. A highlight was the Basic Science lectures put together by Paco Jimenez. They all refreshingly spoke to their audiences without the complexity that might be used with research scientists. The focus on treatments for androgenetic alopecia appears to be on the dermal papillae cells and their movement. Congratulations to all involved in putting together this wonderful meeting, which is always under the watchful eye of our amazing Victoria Ceh.

> "After I'm dead, I'd rather have people ask why I have no monument than why I have one."
>
> — Cato the Elder (234-149BC)

We have all benefited from the tireless efforts of Eddie Epstein over the years as a *Forum* contributor, program chair, ISHRS leader, and past president. To see him win the Golden Follicle was just too good for those who have followed his career. Jean Devroye has been around for a long time as a valuable contributor to our society, but he has moved into high gear over the past two years. Program chair and inventor of a creative FUE instrument, he was an obvious choice for the Platinum Follicle. Then comes Anne Knudsen winning the Assistants Award. Deserved, popular, overdue—what else can be said? When the Follicle Awards were started, there were concerns that there may not be enough qualified doctors/assistants to meet the criteria each year. Now, we could give out 5 each year and still not get around to all deserving candidates. Such is the quality of the ISHRS today. For those who may never get awards that are deserved, be assured that we know the value of your contributions and take heart in the words of Cato the Elder (234-149BC): "After I'm dead, I'd rather have people ask why I have no monument than why I have one."

Several thoughts come to mind from the meeting. Is Arthur Tykocinski the new-age Jim Arnold? He is a teacher in the highest sense of the word: simple, clear, and entertaining. Whenever he speaks, sit up in your chair and listen. For those members who have briefly fallen asleep, please note that there is a slow but sure changing of the guard. Many of our old friends and colleagues from all countries and continents have left the sidelines and are now our teachers. Dow Stough envisioned an energetic society with lively discussions, divergent opinions, and creative members who could then have dinner as respected colleagues without throwing food. Dow and O'Tar Norwood couldn't have imagined the success they created.

Each year seems to have a character and theme of its own. This year was the maturation and wide acceptance of FUE. Being the relatively new kid on the block for several years, and regarded as embarrassingly inferior by opponents and the future by supporters, FUE has finally come of age to nearly all skeptics. The results presented rivaled the best of strip surgery and FUE has been accepted as a true additional tool in helping our patients with hair loss. The arguments now are when to use FUE, proper harvesting of the donor area, and ultimate graft survival. Many believe that forcing the graft numbers per session, and perhaps violating the safe zone, to match those obtained by strip excision may be detrimental to high-quality results. Some experts expressed that the speed should be allowed to come naturally as the procedure expertise matures.

In our society, we have seen several ideas whose time have come (this includes the ISHRS itself). Now it is implanters, and the timing is perfect. FUE grafts are often denuded with splayed shafts, making them very vulnerable to planting trauma, a major negative to the FUE technique. Placing trauma, whether with FUT or FUE, has always been a major reason for poor graft growth. Implanters dramatically reduce placing trauma—and they can be fast. They have been around a long time but now are moving to a new level of sophistication. It is likely that implanters will be considered necessary for a quality practice soon, particularly with FUE.

One inadvertent major benefit of implanters is that a surgical team is needed to create an assembly line for loading implanters and planting grafts. When microscopically dissected strip grafts came on the scene, the uncommitted doctors who only operated sporadically almost disappeared because they couldn't easily set up the skilled personnel needed. With FUE, they came back in a hurry in the belief that a small and not necessarily too experienced staff (or worse, fly-in unlicensed assistants) would suffice, and our profession has started to suffer as their poor results reflect on all practitioners. Now a well-trained team will be needed to obtain optimal results and we might see their numbers diminish.

In the ISHRS, we know that hair restoration is a sophisticated field requiring a necessary knowledge of hair biology, hairline subtleties, medications, and multiple surgical skills to treat our patients successfully. Committed, dedicated hair doctors will find no better entry path than in our society. ■

CONTINUED FROM FRONT PAGE

Diffuse thinning

A clear pattern is not present, thinning extends towards the vertex and occipital area. Often, there are no gaps or missing follicular units but all hairs are uniformly thinner and finer. This may represent a widespread androgenetic alopecia, senescent alopecia, or a complication of chemotherapy, chronic deficiencies, or other conditions. In this case, hair transplantation is contraindicated due to inadequate donor hair quality and density, and trauma to pre-existing hair may reduce the net improvement after surgery.

Primary cicatricial alopecias with neutrophilic infiltrates (folliculitis decalvans), with lymphocytic infiltrates (lichen follicularis, discoid lupus, pseudopelade of Brocq, frontal fibrosing alopecia)

These are rare conditions that lead to an inflammatory destruction of follicles. Hair transplantation can be considered in lymphocytic types if the condition has been inactive for several years without therapy. However, spontaneous relapses or even reactivation secondary to the surgery can occur. In unclear cases, a biopsy and a small test procedure may be performed, but there is no guarantee for permanent results. Close dermatological follow-up and concurrent medical therapy as needed is recommended.

Permanent hair loss due to radiation

If regrowth is insufficient after one year and treatment with topical minoxidil, then hair transplantation is indicated in limited cases with sufficient donor hair. A sequential approach may be advised.

Secondary cicatricial alopecia due to trauma, tumor, surgery or aplasia cutis

In these cases scars should not exceed 100cm^2. The presence of underlying bone defects or insufficient subdermal fat should be excluded.[3] Blood supply may be impaired. Multiple low-density transplantations can be necessary. Larger areas may initially be treated with scalp reduction surgery. While hair transplantation is indicated, often a second procedure to increase density may be necessary after 1 year.

Congenital high forehead, traction alopecia or temporal triangular alopecia

In cases in which the hairline has always been high or has become thin, including the temples, due to chronic traction or triangular alopecia, hair transplantation is often indicated and preferred over hairline lowering surgery.

Transgender patients—male to female

Even though female hormones and finasteride are taken, a male or female hair loss pattern or receded hairline might already have been present or could still develop. Since a female hairline is desired, hair transplantation is indicated, especially in stable cases with sufficient donor hair.

CASE REPORT

A 47-year-old transgender patient complained about her hair situation. She had been treated with estradiol and cyproterone acetate for 16 months. Her skin had become softer. Although her hair loss was stable, she was very upset about her receded hairline and bitemporal recessions that appeared like male pattern hair loss. She often wears a hairpiece, which is not a permanent solution to her problems. She is not able to wear different hair styles like other women. Her medical history also includes non-Hodgkin's lymphoma, which has been in remission for 3 years following chemotherapy.

After an extensive consultation including simulation of her hairline, hair density measurements (trichodensitometry), and donor hair assessment,[4] a recommendation for FUT hair transplantation was made.

The best conditions for a good result are present if the occipital donor hair is relatively thick and dense and if a smaller recipient area (50-75 cm^2) needs to be filled.[5] In this case, the donor density was 88-92 follicular units per cm^2. This is in the high range (Figure 1).

Figure 1. Preoperative trichodensitometry; sufficient donor density of 75 follicular units per cm^2.

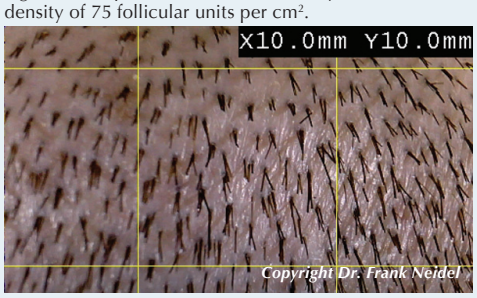
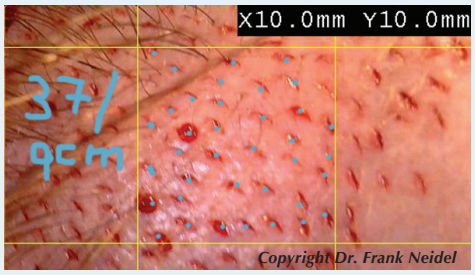


Figure 2. Follicular units are microscopically dissected from the excised strip with minimal transection.

A strip measuring 20cm long by 1.1cm wide was excised, sutured with trichophytic closure, and microscopically dissected, yielding 2,010 robust follicular units with surrounding tissue. Transection was minimal (Figure 2).

Figure 3. Recipient site creation using a 21G needle for minimal tissue damage and exactly predetermined hair direction.



The graft analysis showed 280 single-hair follicular units, 1,180 double-hair follicular units, and 550 grafts with 3 or 4 hairs. This added up to 4,270 transplanted hairs.

Figure 4. Natural hairline with single- and double-hair follicular units.

After tumescent anesthesia was administered, recipient sites were created with 19, 20, and 21g needles. This leads to a low exit angle and higher density with minimal trauma to underlying structures and blood vessels. Loupes were used for placing (Figures 3 and 4).

The additional use of minoxidil or finasteride was discussed with the patient, but she declined. The results were documented with global photos before surgery and 12 months after surgery (Figures 5 and 6).

Figure 5. Frontal and side view before hair transplantation. Desired female hairline drawn.

Figure 6. Twelve months after a single hair transplant procedure; frontal, side, and view from above.

CONCLUSION

Hair transplantation in women and transgender patients can lead to very pleasing results, especially when used to correct the hairline. However, careful patient selection and a fair, realistic consultation (e.g., showing example photos) are crucial.

Insurance companies often decline to cover the costs. Most of them are not aware of the good results offered by the new methods and techniques, and these good results are often overshadowed by trial surgeries performed by nonspecialized surgeons.

It is important to emphasize that hair restoration surgery in women should only be performed by experienced and specialized surgeons and their teams.

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