

Review of the Literature

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Hair pathology book is a must-have

Sperling, L.C., S.E. Cowper, E.A. Knopp. *An Atlas of Hair Pathology with Clinical Correlations*, 2nd Edition. Informa Healthcare: New York, NY, 2012. ISBN-13: 978-1-84184-733-7. e-ISBN: 978-1-84184-734-4.

A great, easy to read book on hair pathology is a must-have reference item for any physician who sees and treats patients with hair loss. Most pathology textbooks on this subject are difficult and cumbersome to read and lack clinical correlations to what we see in practice.

This is exactly what this book delivers.

Besides being a very comprehensive guide to hair pathology, it includes a few chapters that I find particularly interesting: Chapter 2 describes how to best acquire a biopsy specimen for the pathologist to examine, as well as how trichopathologists should handle, stain, and analyze the specimens submitted; Chapter 3 gives a detailed description of the

normal hair anatomy and structure; Chapter 6 describes key histological features and their correlation with hair diseases, offering a simple, 4-step method to help in diagnosing hair pathology from a clinical standpoint; Chapter 7 is a clinical guide to evaluating hair loss; Chapter 36 offers an overview on Hair Shaft Disorders, which is very important for our clinical practice.

The remaining chapters deal with all other hair pathologies, always correlating the pathology findings with clinical aspects.

The entire book is extremely rich with high resolution pictures and explanations, and I have used it often to refresh my knowledge and to consult. ♦



Nicole E. Rogers, MD *Metairie, Louisiana, USA* nicolerogers11@yahoo.com

Hair loss linked with heart disease

Su, L.H., et al. Association of androgenetic alopecia with mortality from diabetes mellitus and heart disease. *JAMA Dermatol.* 2013; 149:601-606.

A recent publication in the Archives of Dermatology suggested an important connection between hair loss and cardiovascular disease. A total of 7,252 subjects aged 30 to 95 years participated in a baseline survey between April and June 2005. Over the next five years, they were followed for their incidence of mortality related to diabetes and heart disease. Among the 2,429 men and 4,697 women, subjects with male or female pattern hair loss had a significantly higher risk of mortality from diabetes and heart disease.

Comment: The results of this study suggest that male and female pattern hair loss is an independent predictor of mortality from diabetes and heart disease. So for those of you treating hair loss patients, remind them to stay up-to-date on their well visits! Make sure their primary doctor is checking their cholesterol, glucose levels, and blood pressure. ♦



No link between finasteride/dutasteride and breast cancer in men

Bird, S.T., et al. Male breast cancer and 5-alpha reductase inhibitors, finasteride and dutasteride. Accepted for publication in the *Journal of Urology*. 9 May 2013 (Epub ahead of print).

New data from a large case-controlled study of men with breast cancer followed over 10 years showed no increase in the rates of breast cancer in those taking finasteride or dutasteride.

Study participants were men aged 40-85 years, followed between 2001 and 2011. Research coordinators identified 339 men with breast cancer and matched them with 6,780 controls (20 controls per case). They assessed the rate ratio for male breast cancer with exposure to 5-alpha reductase using conditional logistic regression. No statistically significant associations were observed between 5-alpha reductase inhibitors and breast cancer.

The authors conclude that the lack of an association in their

study suggests breast cancer development should not influence prescribing finasteride or dutasteride.

Comment: Finasteride and dutasteride have long been used to treat benign prostatic hypertrophy (BPH), and in 1997 finasteride was FDA approved for male pattern hair loss. Dutasteride remains off-label for treatment of hair loss; however, there were some rare reports of male breast cancer in the post-marketing data. This led physicians to some increased concern prescribing the drug for women. Although this data is limited to men, it can make us somewhat more comfortable prescribing finasteride in women. Nonetheless, every woman should stay up-to-date on her mammograms as indicated by her primary physician or gynecologist. ♦

Codes of Conduct and Professional Standards for Hair Transplant Surgeon members of the British Association of Hair Restoration Surgery (BAHRS)

Greg Williams, MBBS, FRCS(Plast) London, UK dr.greg@farjo.com

At the July 2013 Annual General Meeting of The British Association of Hair Restoration Surgery (BAHRS) it was agreed that practising Hair Transplant Surgeon members would be divided into two categories:

1. Full Medical Members, or those performing hair transplant surgery regularly (an average of at least one case per week or 46-52 cases per year), and
2. Hair Transplant Surgeon Affiliate Members, or those who are not regularly performing hair transplants.

It was also agreed that following publication of the Royal College of Surgeons of England's document *Professional Standards for Cosmetic Practice*¹ and the Department of Health's document *Review of the Regulation of Cosmetic Interventions*,² the BAHRS should have a Code of Conduct for both categories of Hair Transplant Surgeon members. The Code of Conduct for Full Medical Members is shown in Figure 1 (there is a slightly different version for Hair Transplant Surgeon Affiliate Members).

Apart from agreeing to comply with the General Medical Council's (GMC's) 2013 publication *Good Medical Practice*,³ the Royal College of Surgeons of England's 2008 publication *Good Surgical Practice*,⁴ and the Advertising Standards Authority's *Help Note on Cosmetic Surgery*, in signing either Code of Conduct, BAHRS members agree to abide by the *BAHRS Professional Standards for Hair Transplant Surgeons*. This document is too lengthy to publish in the Forum but can be found at www.bahrs.co.uk.

Components of the *BAHRS Professional Standards for Hair Transplant Surgeons* that might be of particular interest to international readers of the *Forum* include the following:

- Although the Royal College of Surgeons does not have an explicit definition for "surgery," the BAHRS considers any Hair Transplant—including Follicular Unit Extraction (FUE)—to be a surgical procedure.
- Hair Transplant Surgery is categorised as Level 1b: Invasive (low-medium risk, usually only requires local anaesthetic, out-patient).
- A BAHRS Hair Transplant Surgeon will not allow a Hair Transplant Surgical Assistant to make FUE incisions, but they will allow Hair Transplant Surgical Assistants to extract FUE grafts under their supervision.
- At no point would a BAHRS Hair Transplant Surgeon allow a Hair Transplant Surgical Assistant to function independently or make decisions regarding a patient's care without

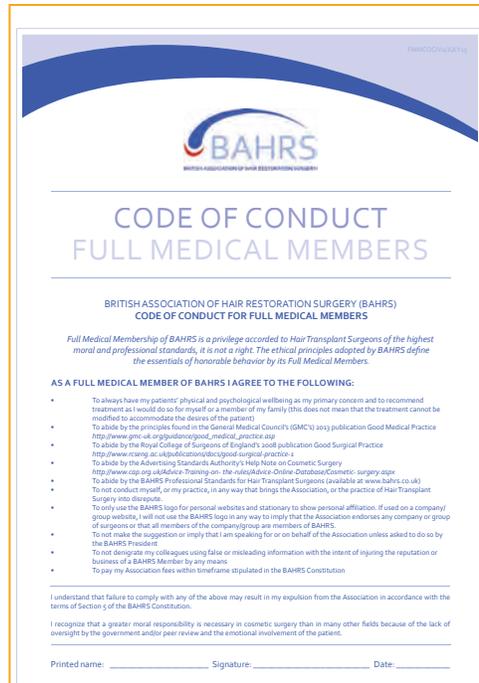


Figure 1. BAHRS Code of Conduct for Full Medical Members

the knowledge of the BAHRS Hair Transplant Surgeon.

- BAHRS Hair Transplant Surgeons, and/or the organisations for which they work, must not seek to hasten a patient's decision to undergo a procedure by the use of financial inducements (e.g., time-limited special offers or discounts).
- A history and nature of any body image and appearance concerns, including impacts on psychological well-being (e.g., anxiety, depression, social anxiety), social and/or occupational functioning, and relevant psychiatric history, such as eating disorders and signs or symptoms suggestive of Body Dysmorphic Disorder, should be enquired about and documented if present.
- The hair transplant procedure should not be done on the same day as the initial consultation. There should be

a cooling-off period of at least two weeks, and the patient should have the right to change his or her mind right up to the point of the procedure being started.

- BAHRS Hair Transplant Surgeons will attend at least one ISHRS Annual meeting every 5 years.
- BAHRS Hair Transplant Surgeons will attend at least one ISHRS-sponsored surgical workshop every 5 years.
- BAHRS Hair Transplant Surgeons should try to accrue 50 Continuing Professional Development (CPD) Credits each year, equivalent to 50 hours. The CPD should be balanced between Hair Transplant-specific learning and other learning relevant to their Hair Transplant practice.

Other components of the BAHRS Professional Standards for Hair Transplant Surgeons that members have agreed to, include:

- Although Hair Transplant Surgery is not a defined specialty, the BAHRS endorses the term "Hair Transplant Surgeon."
- The Royal College of Surgeons of England document *Professional Standards for Cosmetic Practice* recommends that only licensed doctors on the GMC surgical specialist register should perform Level 1 Invasive Surgical Procedures. It does allow for the exception of doctors who were undertaking cosmetic surgery in the Independent Healthcare Sector before 1st April 2002 and who are not on the specialist register, subject to conditions set out in the Care Standards Act 2000. The BAHRS acknowledges that many of its members are not on the GMC's specialist register and were not practicing in the Independent Healthcare Sector

before 2002; however, the qualifications of BAHRS Hair Transplant Surgeons will be noted on their listing on the BAHRS website.

- BAHRS Hair Transplant Surgeons will reassure themselves that their place of work is Care Quality Commission (CQC) registered and approved.
- BAHRS Hair Transplant Surgeons will ensure that they comply with the GMC requirements for Appraisal and Re-validation.
- BAHRS Hair Transplant Surgeons will reassure themselves that their place of work has processes in place for dealing with concerns and complaints raised by patients
- BAHRS Hair Transplant Surgeons should ensure that they audit their Hair Transplant practice.
- BAHRS Hair Transplant Surgeons will ensure that they have indemnity insurance that is adequate for the Hair Transplant procedures that they undertake.
- All BAHRS Hair Transplant Surgeons acknowledge that the Hair Transplant Surgical Assistants who work with them are under their supervision and that the BAHRS Hair Transplant Surgeon is responsible to the patient for ensuring that the quality of care, skill, and expertise of the Surgical Assistant is at a level that complies with the BAHRS Professional Standards for Hair Transplant Surgical Assistants.
- BAHRS Hair Transplant Surgeons should have a pre-procedure consultation/discussion with their patients that should include an in-depth discussion regarding the Hair Transplant procedure. This should be a two-way conversation, with the doctor listening to and modifying the patient's existing understanding of the procedure.
- The patient's fitness to undergo the proposed Hair Transplant procedure should be documented. (Practitioners should not agree to carry out a procedure if they believe that there is a significant risk that it would have a detrimental effect on the patient's health, even if the patient argues that he or she understands and accepts the risk.)
- BAHRS Hair Transplant Surgeons will comply with the GMC Guidance Consent: patients and doctors making decisions together, 2008.
- The Academy of Medical Royal Colleges had agreed standards for medical note keeping—*A Clinician's Guide to Record Standards—Part 2: Standards for the structure and content of medical records and communications when patients are admitted to hospital*—that should be followed.
- Following a Hair Transplant procedure, the BAHRS Hair Transplant Surgeon should ensure the patient is fit to go home. Instructions for aftercare should be given to the patient and arrangements should be made for follow-up. A telephone contact should be given to the patient for enquiries including an out of hours contact telephone number in case of an emergency.

Hair Transplant Surgeon members who fail to abide by the principles within the BAHRS Professional Standards for Hair Transplant Surgeons will be subject to an enquiry by the BAHRS Disciplinary Committee and would be expelled from the Association if their conduct was found to be at odds with the honourable behaviour expected by the Association.

In having its Hair Transplant Surgeon members sign a Code of Conduct, the BAHRS seeks to reassure the public that, although the Cosmetic Surgery field is not currently regulated in the United Kingdom, its members comply with ethical and practice standards that are similar to those expected of doctors working within the National Health Service.

References

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5. <http://www.cap.org.uk/Advice-Training-on-the-rules/Advice-Online-Database/Cosmetic-surgery.aspx> ♦



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Letters to the Editors

Re: Standardization of the terminology used in FUE: part I (*Hair Transplant Form Int'l.* 2013; 23(5):165-168.)

Robert M. Bernstein, MD New York, New York, USA
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The term Follicular Unit Extraction (FUE) is used to describe a procedure in which the intent is to remove individual follicular units (FUs) directly from the scalp through a small punch.¹ That this is not achievable 100% of the time is a fact of medicine and is one reason the procedure is constantly being studied and improved. The FUE procedure was not designed to remove individual hair follicles, nor groups of FUs, although that can be the occasional outcome due to the limitations of current technology and/or the variations of the human scalp. Interestingly, these variations were pointed out by our colleague, the late Dr. David Seager, who wrote about the “follicular unit family” with respect to Follicular Unit Transplantation (FUT), but didn’t feel that these normal anatomic variations warranted calling FUT by another name.²

The authors write [p. 167]:

Follicular Isolation Technique: Also known as FIT, Dr. Paul Rose derived this term to more appropriately describe the procedure commonly referred to as FUE in 2002. The term FIT includes the possibility that a graft does not always get all the follicles of a follicular unit or it might include follicles in more than one follicular unit. It is possible that during removal the surgeon may extract, intentionally or not, one or several follicles, leaving behind a viable hair in the donor site. Alternately, the surgeon might extract more than one intact follicular unit. Therefore, the preferred term by the early pioneers in FUE was “follicular isolation” rather than “follicular unit extraction.”

According to the logic above, if, when performing a FIT, a follicle is transected or missed, the term FIT would need to be changed. The current discussion can be usefully compared to the older debate that centered on differentiating FUT from “extensive micro-grafting” (the procedure that immediately preceded it in which FUs were, for the most part, ignored).³ Although FUT occasionally doesn’t capture an entire FU, and sometimes combines ones that are situated close together, by calling the FUT procedure “micro-grafting” one misses the essence of FUT. FUT is not about the transplanting of individual follicles, or of multiple follicular groups; it is about transplanting naturally occurring individual FUs. The same goes for FUE.

The authors state [p. 167]:

In strict terminology, the term “follicular unit extraction” is inappropriate and misleading because it is a histological term rather than an accurate anatomical surgical term. More appropriate would be the term FIT (Follicular Isolation Technique)....

This is an interesting opinion, but histology is merely the microscopic view of anatomic entities. We are using FUE as a clinical term to describe the harvesting of anatomic structures—albeit small. By these authors’ reasoning, FIT would be inappropriate and misleading because it purports to surgically remove a hair follicle, rather than a hair. Although it is always a challenge

to consistently remove intact follicular units, there is certainly nothing inappropriate or misleading about the term FUE.

In 1998, I organized a group of 21 prominent hair restoration surgeons, of which Dr. Rose was a member, to standardize the nomenclature of FUT. For expediency’s sake, a few of us entertained the idea of calling FUT simply Follicular Transplantation (FT), but after an animated back-and-forth our group wisely decided that the longer name, Follicular Unit Transplantation, was more descriptive, and so we formally adopted this term.⁴

By calling FUE the Follicular Isolation Technique, we risk making a similar mistake. Pardon the cliché, but the term FIT misses the trees for the forest. Our technique is not about harvesting follicles. It is about harvesting FUs. After all, realizing that the FU is the basic unit of the hair transplant is what differentiates modern hair transplantation, and its natural results, from all previous hair restoration techniques.⁵ If you prefer the name FIT, that is, of course, okay. It just should be reserved for a procedure different than the one we have described.

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Historically, from a matter of practical use over an 11-year period, the term Follicular Unit Extraction (FUE) has been used routinely. Its literal translation is clear and concise and says what is done and what we intended to it to mean when we wrote our 2002 article in *Dermatologic Surgery*.¹ When Robert Bernstein and I discussed the name for the procedure in the writing of that article, we toyed with the idea of using the acronym FOX procedure for FOllicular eXtraction, but we discarded that idea because Follicular Unit Extraction was more descriptive and followed the conventions defined in the standardized nomenclature the industry recognized in 1998 with the term Follicular Unit Transplantation (FUT) terminology, and I for one, believe that other terms that confuse our colleagues should be abandoned.

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Re: Hiccups**Jonathan Ballon, MD Atlanta, Georgia, USA**jballon_md@yahoo.com

I read with interest Dr. Nilofer Farjo's report of a patient who developed hiccups that lasted 4 days following a single pre-op dose of oral prednisolone (*Forum*; Volume 23, No. 3, p. 79).

Persistent hiccups are a frequent problem among neurosurgical patients, many of whom are on prolonged, high doses of oral or intravenous dexamethasone (Decadron), a potent corticosteroid used to control tumor-related vasogenic edema. If the hiccups do not resolve spontaneously, chlorpromazine (Thorazine), a centrally acting drug, is the treatment of choice and can be quite effective in relieving the sometimes debilitating symptoms; metoclopramide, phenytoin, valproic acid, and baclofen have all been used less effectively as alternative therapies.

Hiccups associated with the use of less potent oral corticosteroids (typically prednisone, methylprednisolone, and prednisolone), even when administered chronically, are rare despite the

widespread use of these drugs across many different specialties. This begs the question whether a single dose of prednisolone could explain the complication Dr. Farjo has reported, and suggests that her patient's hiccups might have been due to another established mechanism, e.g., eating rapidly and/or swallowing air during his lunch break.

Editorial Note: I welcome Dr. Ballon's comments and he may be quite right that the cause of the patient's hiccups was not related to drugs. At the lunch break, the patient had not yet begun to eat so I did not think that this was the cause. I have never come across hiccups in any other situation other than related to eating, and certainly have never seen an intractable case, so I was at a bit of a loss and hence my investigation into other possible etiologies. It would be interesting to hear from other surgeons of their experiences in relation to hair transplant cases as this is an under reported complication. —NF♦

Re: FUE and donor depletion**Jae Hyun Park, MD Seoul, Korea jay8384@naver.com**

It was a great opportunity to read a variety of opinions and pearls of wisdom from several authors. [(Controversies. *Hair Transplant Forum Int'l.* 2013; 23(3):86-93)] I appreciate valuable opinions from those with extensive clinical experience. As no comments were received for Asian patients, especially East Asians, I would like to add a few more matters related to them from my experience.

The FUE procedure for East Asians is unique for a few reasons:

1. Face shape and hairline design are different.

East Asians have prominent cheekbones and a wide and flat face of the brachycephalic type. Therefore, the hairline of East Asians is significantly different from that of Caucasians with the dolicocephalic type face. In general, East Asian patients prefer a flat hairline to oval-shaped, and the flat design requires more hair than the oval shape.

Although a slight frontotemporal recess equivalent of Norwood class II-III is natural in appearance for Westerners, it is regarded as advanced M-shaped hair loss for East Asians. For this reason, East Asian patients with MPB choose to have hair transplantation surgery at a young age and are unwilling to have an oval-shaped hairline in the procedure as it is also considered as the early or middle stage of M-shaped hair loss.

2. The hair type of East Asians is different.

East Asians have dark hair and deep, thick follicles and have the brightest skin color among all Asians, so there is a stronger contrast in color between their hair and skin. In addition, East Asians have very low hair density. Caucasian males with baldness have almost 190-200 hairs/cm² while East Asian males with the same symptom have about 120-125 hairs/cm² (only 50-65% those of Caucasian males) and 65-75 grafts/cm². The number of hairs per follicle, or follicular density, is also lower than that of Caucasians.

To avoid the "see-through appearance," hairs need to be implanted at a similar density to Caucasians. This is problematic because the East Asian's donor hair density is lower than that of Caucasians but the need in the recipient area is similar.

A larger FUE punch is required for East Asians due to their thicker hair follicles. An 0.8mm punch, in the 0.75-0.90mm range, which Dr. Lorenzo said he prefers, is extremely difficult to extract 2 FU and 3 FU hairs, especially for East Asian male patients.

3. East Asians have a different character scalp.

As Dr. Bertram Ng said about idiopathic occipital fibrosis, East Asians' occipital donor area is much firmer and the bond of subcutaneous tissue and hair follicle or fibrosis in occiput is strong and extensive. As a result, a follicle is often in a nuded or skeletonized state, almost without perifollicular tissue when doing FUE extraction and this can cause a low survival rate and, in the end, donor depletion.

As mentioned above, East Asians have the brightest skin among Asians but it is still darker than that of Caucasians. As a result, white-spotted FUE scars are relatively more noticeable. Furthermore, the skin laxity of East Asians is lower than for Caucasians and so, therefore, is the number of hairs able to be collected by strip method.

4. Additional comments.

In FUE punching, not all the hairs transected grow in the same spot again. Some do; others don't. It is a widely-known fact from Dr. Kim's¹ study and other researchers.

Dr. Lorenzo mentioned that the rate of patients that progress to Norwood VI or VII was fortunately minimal; however, I disagree.

Norwood class III-VII in the group aged 70-74 years accounts for 82.8% in Norwood's study² and 82.6% in Unger's. In Unger's study,³ Norwood class VI appears in 7% of the 70-74 year age group, 13% of 75-80 years, and 8% of those over 80 years old. Norwood Class VII affects 14.8% in the 70-74 years old range, 13.7% in 75-80 years, and 26.1% in those over 80 years old.

5. Summary

To summarize, FUE is not easy in East Asians. They have fewer donor hairs but need more hairs. Consequently, donor depletion is a very critical matter. For East Asian patients, sur-

→ page 228

Letters to the Editors

from page 227

gical indication should be more carefully chosen and medical treatment has to be strictly monitored. Also, good operative planning and a handful of techniques are needed by very skillful and well-organized surgeons.

From the very early stage, everything has to be judged overall, considering donor and recipient areas, conditions and progress of hair loss, and so on. Based on the surgeon's comprehensive judgment, we should be able to say "No" to patients when needed and be willing to make every effort to successfully transplant more hairs.



Re: European regulations

Greg Williams, FRCS FRCS(Plast), London, UK
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I read with great interest Jean Devroye's update on the progress being made with the European Committee for Standardisation (CEN) project on Aesthetic Surgery as recommendations made in the final draft may have widespread impact on the practice of Cosmetic Surgery, including Hair Transplantation, across Europe. [*Hair Transplant Forum Int'l.* 2013; 23(4):].

I was also interested to see that in Belgium a new speciality has been created for Non-surgical Aesthetic Medicine. However, I am very surprised that in Belgium "the follicular hair transplant is considered as a non-surgical act." I wonder if there has been an error in terminology and what Jean meant was that the Follicular Unit Extraction (FUE) hair transplant technique is considered a non-surgical procedure? It is difficult to see how the harvesting of a strip of hair-bearing skin, hemostasis and subsequent wound closure would not be considered a "surgical procedure."

The British Association of Hair Restoration Surgery (BAHRS) has recently approved a set of Professional Standards for Hair Transplant Surgeons in which it states that "BAHRS considers any hair transplant (including Follicular Unit Extraction—FUE) to be a surgical procedure."

I look forward to seeing statements from other global hair restoration societies clarifying their positions on this issue.

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3. Unger, W.P. Delineating the safe donor area in hair transplanting. *J Am Acad Cosmet Surg.* 1994; 4:239-243. ♦

A note from Jean Devroye: I took a look on the different documents. You are right, my formulation was not correct. The text in French says:

Art. 10

§ 1er. Les titulaires du titre professionnel particulier de médecin spécialiste en médecine esthétique non chirurgicale visé à l'article 1er de l'arrêté royal du 25 novembre 1991 sont habilités à réaliser l'ensemble des actes relevant de la médecine esthétique non chirurgicale, à l'exception d'injections intra-mammaires.

§ 2. Les titulaires du titre professionnel particulier de médecin spécialiste en médecine esthétique non chirurgicale visé à l'article 1er de l'arrêté royal du 25 novembre 1991 sont également habilités à réaliser les actes relevant de la chirurgie esthétique suivants: 1° greffe capillaire;

Translation:

Article 10

1. The holders of the specific professional title of specialist in aesthetic medicine non-surgical referred to in Article 1 of the Royal Decree of 25 November 1991 shall be entitled to perform all acts under the non-surgical aesthetic medicine, with the exception of intra-mammary injections.
2. The holders of a specific professional qualification medical specialist in aesthetic medicine non-surgical referred to in article 1 of the Royal Decree of November 25, 1991 are also authorized to perform acts under the following cosmetic surgery: 1 hair transplant;

Editor's note: This reply from Dr. Devroye does clarify part of Dr. Williams' comments in that the Belgian authorities are not calling hair transplants a non-surgical act. However, the Article does state that surgical hair transplant procedures are allowed as part of the remit of specialists in non-surgical aesthetic medicine. So in essence the implication might be that hair transplants are not considered to be surgery in the traditional sense of the term. This is a very different concept to the definitions being considered in the UK where the Royal Colleges are pushing for upgrading cosmetic procedures in surgical terms. —NF ♦

Meetings and Studies

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Review of the ISHRS Beautiful Brows Workshop

October 27-28, 2013 • San Francisco, California, USA

Edwin Suddleson, MD *Beverly Hills, California, USA*

Mona Lisa has none. Brooke Shields' are renown. Madonnas' are flash and rebellion. They are eyebrows, of course, the frame to "the mirror of the soul."

Creation of beautiful brows was the subject of the ISHRS-sponsored Beautiful Brows Workshop last month in beautiful Walnut Creek, California, immediately following the ISHRS annual meeting. Dr. Sara Wasserbauer and her international faculty of eyebrow superstars got together with 19 attendees to share expertise on the care and feeding of the eyebrow. How many hairs are there in an eyebrow? What is the importance of hair caliber in the overall result? ANGLE and DIRECTION! What causes eyebrows to thin and what are the best available treatments? Who is a candidate for surgical treatment and who is not?

Dr. Wasserbauer gave the first presentation, "Brow Loss: Medical Overview." As suspected, differential diagnosis of brow loss is a surprisingly complicated topic, and even more so when presented by an internist. So, there are those conditions that can and should be treated by surgical restoration, those that can be treated by surgical restoration but should not, and finally those that should never be treated by surgical restoration. Begin (in alphabetical order) with Alopecia Areata and end with Trichotillomania. Now, we are ready to tackle the process of selecting, planning, and executing surgical restoration of the eyebrow.

Dr. Bobby Limmer presented the open forum discussion, "Consultation and Patient Selection." Input from intermediate and advanced hair transplant physicians who participated in the meeting and from our superstar faculty led to a very informative, fast moving, and frank discussion that propelled us through the break.

This was followed by Dr. Edwin Suddleson's "Preoperative Considerations," which was a more formal review of safety and emergency preparedness, pre-operative patient evaluation, and how to avoid unsafe medical situations. In addition, how to make an accurate diagnosis was presented as well as some



examples of typical eyebrow restoration cases and types of illness typically treated with before and after photos. Finally, the physical examination was covered with a discussion of facial shape and landmarks for eyebrow evaluation. There were also a few words about informed consent. Rounding out the morning, Dr. Damkerng Pathmanovich spoke about eyebrow design with an emphasis on how to achieve symmetry.

Our first live surgery for the day was a total eyebrow restoration in a 62-year-old woman who plucked out her eyebrows in high school and has been painting them on ever since (operated on by Dr. Wasserbauer). Next, we had the case of a young woman with post-traumatic eyebrow loss on both eyebrows (operated on by Dr. Suddleson). Long hair transplantation for a good preview was demonstrated. Work stations with equipment, silicone fake scalp models for design and placement practice, and Dr. Wasserbauer's model patients were also around for the participants and faculty to observe and handle.

The second day began with a presentation by Dr. Marcelo Pitchon on long hair preview transplantation and its use in eyebrow restoration. Additional presentations dealt with the remaining topic of post-op care and the advanced topics of "stick-and-place" technique, use of FUE, and the role of eyebrow transplantation in facial reconstruction. There was also a demonstration of eyebrow tattooing.

Two additional live cases demonstrated the repair of previous eyebrow transplantation misadventure and "stick-and-place" for touch-up to the head of the eyebrow.

Between the various sessions, lively discussions were taking place on the treatment of alopecia areata, trichotillomania, harvesting methods, graft placement methods, and all aspects of practice development. I would like to congratulate and thank Dr. Wasserbauer for conceiving of, organizing, and running a truly outstanding workshop. ♦



ISHRS Annual Giving Fund

2013 Year-End Report

Dear Colleagues:

As this year draws to a close, we can look back with pride and enumerate the accomplishments of the Annual Giving Fund in 2013. At the end of my third term as Chair, I am pleased to share the ongoing successes of the AGF.

2013

To recap, while the ISHRS Annual Giving Fund fell short of its fundraising goal in 2013, it still supported many worthwhile ISHRS initiatives. Our goal was to earn \$60,000 in donations, but unfortunately, we had a negative variance of (\$7,675). Regardless of this shortfall, I want to personally thank all who contributed so generously this year making it possible for us to raise a very respectable \$52,325. Each of you has helped the ISHRS achieve many of its philanthropic and educational goals and provide valuable member benefits. Your kindness and ongoing support of the Society through your AGF donation is very much appreciated by the leadership and me.

The proceeds from the year's Annual Giving Fund were used to support several projects. Here is a summary of what your donation helped to fund in 2013:

- Operation Restore Pro Bono Program
- Cicatricial alopecia research
- Communications & public education, which includes website improvements and SEO

2014 GOALS

In 2014, we hope to reach our \$60,000 fundraising goal. We will be reaching out to new and old members asking them to carry the torch. It is my hope that many of you will be inspired by the important works that past donations have funded. In addition, here is a list of what your future possible donation will help to fund in 2014:

- Operation Restore Pro Bono Program
- Continued support of cicatricial alopecia research
- Translate the patient pages on the ISHRS website into 5 additional languages. The site currently has translations in Arabic, Italian, Japanese, Korean, and Spanish.
- Move into the next phase of our integrated communications strategic plan with the goal to elevate the status of hair restoration surgery and the ISHRS via web marketing, social media, and media relations

PLEASE CONSIDER DONATING

For those who have not yet contributed, it's easy to support our Society. If you choose to donate for 2014 or make another multi-year pledge, please complete the online donation form by going to: <http://www.ishrs.org/content/ishrs-annual-giving-fund>.

Or, if you prefer, you can contact Kimberly Miller at the ISHRS headquarters office at agf@ishrs.org with your credit card information, amount of donation, and number of pledge years. New donors will receive a lapel pin, and we ask you to wear it proudly at the ISHRS meetings.

Your generosity in giving makes a concrete statement that you support the ISHRS and its initiatives. Thank you for your consideration of a gift to the Annual Giving Fund. All gifts are tax-deductible within provisions of your national income tax laws. Should you need additional information, please contact ISHRS Headquarters at 1-630-262-5399.

Most sincerely,

John D. N. Gillespie, MD, Chair
ISHRS Annual Giving Fund



Thank You to Our 2013 Donors

The ISHRS gratefully acknowledges the generosity of the following individuals who have made donations to the Annual Giving Fund.

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Surgical Assistants Corner

Ailene Russell, NCMA Charlotte, North Carolina, USA arussell@haircenter.com



I would like to take this opportunity to thank all of you—those who have taken the time to write an article and those who read our Surgical Assistants column. This is the last article for this year's *Forum!* We began this year with the idea of change and evolution, and this columnist would like to see this thought carried forward.... We will have new editors, new ideas and old ones to work through, combine and come up on the NEW SIDE!

This article was submitted by Auson Edwards, BSc (Biochem), who has been with the Farjo team for a little more than a year. The article serves to point out the importance of post-op care and how it is done in Manchester, UK, by the nurses for the patients of their clinic. His thought-provoking impression of the reasoning behind the recommendations brings up valid questions for all of us.

Hair transplant post-op procedures and products

Auson Edwards, BSc (Biochem) Manchester, UK nurses@farjo.com

There is a universal standard and understanding in regard to the hair transplant procedure among world surgeons and hair transplant professionals. However, there is an abundance of variation, professional and personal, in how the procedures are performed; beginning with the pre-operative selection criteria, the type of procedure selected, and post-operative instructions and care. This article aims to highlight and address the variations in post-operative instructions, products, and care.^{1,2} By looking at these variations, steps can be taken to suggest areas of further research to assist in standardizing hair transplant post-operative instructions. Although these variations in post-operative instruction for hair transplant surgery are evident, there is unanimity in the main objective of the post-operative instructions, which is to ensure graft health, promote optimum wound healing conditions, and prevent infection.

There is no argument that the survival of grafts and growth is crucial in producing the best result possible for our patients.² The key factor in achieving this result is ensuring that grafts are not dislodged from recipient sites. It comes as no surprise that when told this, a patient will usually ask, "At what point are transplanted grafts so securely anchored in the scalp that they cannot be dislodged?"

A study performed by Dr. Robert M. Bernstein and his team showed that most grafts are vulnerable to dislodgement until the 5th or 6th day post procedure.³ The article also states that this time frame and risk of graft dislodgment is dependent on scab formation and wound healing. Results showed that the formation of scabbing can serve as a coagulum to hold grafts in place immediately post operation. However, in the long run, it is shown that long-term crusting formation can prolong the time period patients remain at risk of losing grafts and prevent patients from returning to their regular hair care regime. The proposed ideal solution is to facilitate conditions where crusting and coagulum are formed 1-2 days post procedure and then conditions that obviate this in the long term.

The final unified objective of post-operative instructions is to prevent bacterial infection. Infection occurs very rarely, but when it does occur it can cause a range of uncomfortable symptoms for the patient and lead to even further complications. The above objectives are standard, but their implementation is where variation in post-operative instructions occurs, and this is especially so in the products used.

In our post-op care, we use a combination of three products: a pH balanced shampoo, a conditioner, and an antiseptic lotion. The shampoo is used 24 hours after the procedure to keep the scalp and hair clean and to alleviate irritation. This shampoo also has low viscosity, an alternative to a thick-textured shampoo that might dislodge grafts and is harder to wash out of hair. Some practices suggest using baby shampoo thinking it is less irritating, but this is a misconception. Most baby shampoos have alkaline pH so as to not to sting the eyes of the child, whereas the shampoo we use is at a balanced pH of 6. Ingredients in the shampoo also include anti-scaling, anti-irritation properties, formulated with mild pharmaceutical grade surfactant. Surfactants or detergents, often used in washing products and shampoo, are a major component of most cosmetic products. Detergents allow lipids and other hydrophilic dirt to emulsify in water and then wash off. There are a wide range of surfactants used in cosmetics and knowing which are strong and which are mild can help in deciding what shampoo is not irritating or damaging to the hair or skin. Most shampoos, no matter how mild the surfactant, will usually also remove the natural oils of the hair, leaving the outer cuticle of the hair shaft exposed, raised, and brittle.

The reason why conditioners are often recommended is to help replenish natural oils and coat the cuticle and lay it back down against the shaft. Conditioners are normally surfacing acting, but for damaged hair, deeper penetrating conditioners that will act within the cuticle and cortex to strengthen and repair keratin bonds may be more effective. At our clinic, we use a conditioner that is extremely rich in natural oils and mimics sebum (the natural oil secretion of the scalp).

The final product is the antiseptic moisturizer, which is used to prevent infection and to optimize scalp health. Frequent use of this moisturizer is advised to keep scabbing and scaling to a minimum allowing for ideal conditions for grafts to settle. Some surgeries and surgeons will use normal saline spray to keep wounds moist, but this has to be done too frequently to be a viable option for many patients. Polysporin Antibiotic Ointment is also another popular choice, used 3-4 times a day to prevent scabbing and scaling and to keep the grafts and scalp moist.⁴ Our moisturizer has anti-bacterial, antiseptic, anti-dandruff, and anti-scaling ingredients and also contains a humectant that normalizes dry scalps.

With the shampoo, conditioner, and moisturizer, and following our post-operative instructions, we successfully fulfill the above post-op objectives. We ensure the grafts stay secure and healthy in the scalp and we maintain optimum conditions of the scalp and hair to promote rapid and quality healing of the wounds. It is very understandable that other practices will use different methods and products and still gain excellent results.

Above, I have highlighted three main objectives of post-op care, and using my research, knowledge, and personal experience, I have suggested some ways of accomplishing those objectives. It is easy to forget our patients at the end of the day when they walk out of our surgeries. Some patients we do not hear from until 14 days after surgery when they come back for suture or staple removal and sometimes longer time spans.¹ Eventually, it would be good to see some form of standardization of post-op protocol that addresses the issues of graft attachment and health, wound healing, scabbing, infection, and creating the least irritating and most rapid recovery period for the patients.

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GROW HAIR GROW! MINIMIZING POOR GROWTH IN HAIR TRANSPLANTS AND NEW WAYS TO MAX IT OUT

Speakers: Mario Marzola, MBBS; Michael L. Beehner, MD; John P. Cole, MD; William M. Parsley, MD

This webinar shares insights on how to minimize poor growth outcomes in FUT and FUE procedures. Case studies illustrate the best practices in maximizing hair growth, lessons learned, and how to confront patients with poor growth. The faculty also discuss new ways to maximize growth in the use of vasodilators, angiogenesis stimulators, PRP, Lipophilic ATP, ACell, and other growth maximizer treatments.



INTRO TO BIostatISTICS & EVIDENCE BASED MEDICINE

Speakers: Jerry E. Cooley, MD; Jamie Reiter, PhD

This webinar provides basic information regarding proper research design and statistics for investigators in hair restoration surgery through didactic lecture and dialogue between presenters. It covers the importance of proper design and analysis, typical research questions asked by ISHRS members, research design, statistical analysis, and resources.



GOING VIRAL: UNLOCKING THE SECRETS OF SOCIAL MEDIA FOR HAIR TRANSPLANT PATIENT EDUCATION AND BEYOND

Speaker: Alan J. Bauman, MD

Social media is "an umbrella term that defines the various activities that integrate technology, social interaction, and the construction of words, pictures, videos, and audio." It describes the "zillions" of conversations people are having online 24/7. Social media is shifting power away from the editors, publishers, the establishment and the "media elite." Beyond just another marketing channel, you need to understand how to leverage social media and its implications for your practice.



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ANCILLARY MEETINGS As you plan your itinerary, please make note of these Ancillary Meetings to occur in Bangkok preceding the ISHRS Annual Scientific Meeting. We have coordinated the events for the convenience of our attendees. Each will have separate registration with details to come.

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Dates and locations for future ISHRS Annual Scientific Meetings (ASMs)

- 2014: 22nd ASM
November 12-16, 2014
Bangkok, Thailand
- 2015: 23rd ASM
September 9-13, 2015
Chicago, Illinois, USA
- 2016: 24th ASM
November/December 2016
Central America, TBC



Advancing the art and
science of hair restoration

Upcoming Events

Date(s)	Event/Venue	Sponsoring Organization(s)	Contact Information
2 Sessions: March 11-14, 2014 May 20-23, 2014	University Diploma of Scalp Pathology and Surgery Paris, France	University of Paris VI www.hair-surgery-diploma-paris.com	Tel: 33 (0)1 + 42 16 13 09 sylvie.gaillard@upmc.fr
April 9-12, 2014	20th Annual Orlando Live Surgery Workshop Orlando, Florida, USA	International Society of Hair Restoration Surgery Hosted by Matt L. Leavitt, DO	Valarie Montalbano, Workshop Coordinator HValarieM@leavittmgt.com
May 21-24, 2014	5th Brazilian Meeting of Hair Restoration Surgery Maresias Beach, Sao Paulo, Brazil	Brazilian Society of Hair Restoration Surgery (ABCRC) www.abcrc.com.br/congresso	Arthur Tykocinski, MD, Program Chair arthur@cabelo.med.br
June 13-15, 2014	ISHRS European Hair Transplant Workshop Brussels, Belgium	International Society of Hair Restoration Surgery Hosted by Jean Devroye, MD	www.European-Hair-Transplant-Workshop.com workshop2014@drdevroye.com
June 26-29, 2014	XV ISHR International Meeting: Advancing in Hair Restoration Siracusa (Sicily), Italy	Italian Society of Hair Restoration Hosted by Franco Buttafarro, MD & Pietro Lorenzetti, MD	lorenzettipietro@virgilio.it francobuttafarro@gmail.com www.ishr2014.com