Sharp and Hybrid Punches: A Detailed Comparison of Different Quality Control Markers

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Conflict of interest: Jean Devroye is CEO of Devroye Instruments, production of punches

This study was presented at the 2019 ISHRS meeting in Bangkok as a poster and was awarded “Best Tip”.

ABSTRACT

Introduction: Low transection rate and high availability of usable grafts is very important for the surgeon performing FUE. Prior studies have shown a decrease in transection rate using the blunt over the sharp punch. The hybrid punch developed by Devroye with a flat cutting surface has clinically been shown to also improve the quality and yield of grafts compared to a sharp punch.

Objective: The goal of this study was to compare both the sharp and hybrid punch in terms of total grafts available and transection rate.

Study Design: This was a multi-center, side-by-side study looking at the same number of grafts removed via follicular unit excision (FUE) with the sharp and hybrid punches. Experienced physicians in both techniques removed grafts using the same-sized punch from similar areas of the scalp and recorded the number of extraction attempts, grafts obtained, and transection rates. From this information, a comparison of punches was undertaken looking at complete grafts available and the transection rates.

Conclusion: There was an overall higher yield of grafts obtained using the hybrid punch. Also, there was a nearly 50% reduction in the transection rate of the hybrid over the sharp punch. The selection of punch type is important for the physician desiring to maximize the total number of grafts and minimize transection in their patients.

INTRODUCTION

The hybrid punch was created by Dr. Jean Devroye in 2014 and introduced during the 2015 annual meeting of the ISHRS in Las Vegas. It was inspired by the blunt punch invented by Dr. Jim Harris. The hybrid punch has an external cutting edge along with a flat skin contacting inner surface and is designed to be less aggressive for the follicles, giving globally a better follicle yield.

OBJECTIVE

This multi-center study had two intentions: 1) to verify and compare the overall number of grafts available for hair transplanting with follicular unit excision (FUE), and 2) to verify the transection rate for both the sharp and hybrid punches and to demonstrate the variation of these two markers by comparing the grafts obtained with both punches.

STUDY DESIGN

A multi-center study was designed to draw a comparison between two quality control markers between the hybrid punch and the sharp punch: 1) the rate of grafts available for transplanting, and 2) the rate of transection of hairs per graft. We introduce two new terms, described in the next section, that permit a more accurate assessment of the quality of FUE grafts.

There were a total of 32 patients, the majority of whom were male. The procedure was carried out by extracting two sets of 100 grafts on each patient; one set was obtained by a hybrid punch and the other...
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President’s Message
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To Be or Not to Be in the ISHRS: A Question of Choice

It may sound funny, but I have to admit that the column I never used to read when I received a new issue of this journal was this one, the President’s Message. Not because of a lack of esteem for my predecessors for whom I have enormous respect, but because as soon as I received the journal at home, what I wanted to read were the scientific papers that always taught me something practical and useful and that served as inspiration for me to make changes for the better in my practice. Although I am almost sure that most of you feel the same way, too, in view of my obligation to follow tradition and continue to write a President’s Message in every 2020 issue, I promise at least to be as brief as possible.

One of the pillars of our ISHRS is education. Following the path of the founders of our society, from the beginning we adopted the principle of unselfishness with respect to the sharing of knowledge with other colleagues. Moreover, any doctor, no matter their specialty and formal training, has to date always been welcome in our society. However, circumstances have changed and we have had to adapt to the times in which we are living. As a result of the current hair transplant market, and with patient safety always foremost in our minds and satisfaction as our first objective, the ISHRS has found itself obliged to impose stricter rules for new doctors applying for membership. Henceforth, we will only accept doctors who accept and follow the ISHRS’s policy of “only doctors doing hair transplant surgery.” We believe in our principles, and as the leading society in hair restoration surgery, the ISHRS has to be a model to follow regarding ethical conduct. We have great faith in our beliefs, and other medical societies support our policy. It is as simple as this: if we consider that taking a punch biopsy is a minimally invasive surgical procedure, then the excision of thousands of follicular units with a circular trephine (punch) must also be considered a surgical procedure, and therefore should not be done by non-medical professionals.

We all know that there are excellent hair surgeons using technicians to harvest their FU grafts from the donor area, and I realize that if those surgeons are in perfect control of the surgery at all times and the technicians have been adequately trained and are continuously evaluated, the manual skill required in the excision process can be performed equally well by the technicians as the doctors. But we must also acknowledge that they are allowing technicians to make medical decisions with each square centimeter they harvest (in order to avoid complications such as overharvesting or necrosis) for which they have no legal authorization or formal training. We, as a society, cannot support such a paradigm because if we do so we also open the door to numerous unethical doctors with minimal-to-zero knowledge in this field who have no expertise in providing appropriate supervision and are only looking for an easy way to increase their profits by hiring technicians to do part, if not all, of the surgery. When a lack of expertise results in improper patient selection or surgical complications, the victim is always the same: the patient.

For this reason, if you prefer to follow the paradigm of hiring techs to perform hair transplant surgery instead of doing it yourself, please do not apply for ISHRS membership. There are other societies who will be happy to accept you as a member. Furthermore, if you are an ISHRS doctor who uses techs to perform surgery for you, please embrace your values and leave our society. We prefer not to kick anyone out of the ISHRS since we are doctors and not policemen, but this is a question of choice that you, as a doctor with honesty and integrity, have to make. I really see no other option or change in ISHRS policy—which is consistent with our principle of putting patients before profits—any time soon, at least not in 2020. Of course, we never know what will happen in a few years. Only time will tell if our medical ethics are able to stand strong in the face of big business challenging the privileges that medical licensure provides.

Please join the ISHRS Annual Giving Fund and help in our Fight the FiIGHT campaign with a donation! It is crucial that we have member support. Please make your donation to help support the battle against the unlicensed practice of medicine. To donate to the Fight the FiIGHT campaign, go to: https://ishrs.org/make-a-donation/
Co-Editors’ Messages

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A welcome from your new Forum editors. Since 1994, my first year in hair restoration surgery, I have been a regular reader of what was O’Tar Norwood’s labor of love for this emerging specialty. Its purpose as stated in the inaugural issue—“the rapid dissemination of ideas, questions, concepts, views, and opinions”—is as relevant today as it was 30 years ago. While the politics may be a bit more complex, the reality is we are all colleagues in this wonderful field.

It thrills me to think that I, along with Aditya, will be at the helm for the next three years, a time that promises to be one of continuing scientific advances that we will bring in a timely manner to the entire HRS community. We are committed to working diligently and creatively to not just continue the path of excellence and accessibility set by the editors before us, but also to more actively solicit contributions from our membership—that means you—all of whom have something to teach or to provoke in thought or controversy.

It feels great to be published in the Forum, and the new FORUM ePUB (see Robert True’s article) means wider audience exposure. In 1996 I published my first Forum article, and it was affirming to think that a young surgeon like me could not just learn but also teach through this publication. This affirmation set me on the course to where I am today, not only with a portfolio of publications, but something more substantial—a feeling of being part of the hair restoration community. There are no invitations handed out to “join,” rather just encouragement to submit articles, present lectures, and get involved with educating the public on what our specialty is about.

With all the regular columns to be continued, including two of my favorites for their thought-provoking content (Greg William’s Ethics and Russell Knudsen’s Controversies), there will be several new columns. We look forward to publishing opinion pieces that encourage debate like William Rassman’s letter to the editors with Paul McAndrews’ reply, as well as providing coverage of efforts by our members that include pro bono work to repair the poor outcomes from turn-key or other unqualified clinics.

Some articles in this issue may be familiar to those who attended the 2019 World Congress in Bangkok, including Igor Bottura’s on a case presented at the M&M conference, Jean Devroye’s multi-center study that took home the “Best Practical Tip” award, Vlad Ratushny’s column on exosomes, and Scientific Chair Robin Unger’s impressions of the meeting. As always, the literature review by Aditya Gupta is succinct and worth a read. One particular asset of working with Aditya is the experience in scientific writing he and his team of researchers bring. I feel fortunate to share our editorship, and like any successful marriage, I feel I got the better bargain. Speaking of marriages, I want to thank my wonderfully supportive wife Gorana for encouraging me to take on this role, and for allowing me to see, through her eyes, more than ever just how wonderful a specialty this is.

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There are many great articles in this issue touching on a variety of topics. Gregory Williams’s Spotlight highlights an important topic not often discussed: the vulnerable patient. This article is a salient reminder that we need to keep the best interest of the patients at the forefront, and identifying vulnerable patients should be a priority. Russell Knudsen’s Controversies also touches on this topic, describing the pressure patients can put on hair restoration surgeons for surgery that may not be the best option for them. With the increasing trend of unscrupulous clinics luring patients with promises of miraculous results at a fraction of the price, we need to stand united and fight the urge to give in to patient requests that are not in their best interest.

In Letters to the Editors, William Rassman and Paul McAndrews explore the debate about black market vs delegating in hair transplant procedures, highlighting the differences between legal delegation of certain parts of the hair transplant surgery and the illegal practice by unlicensed practitioners/technicians. This is an important discussion to continue with the goal of defining the best moral practice. This debate brings to light that the ISHRS’s “Fight the FIGHT” campaign is not about restricting robotic devices or the delegation of certain procedures to a technician, but rather it is about promoting public awareness of the safety implications of illegal practices by unlicensed medical hair transplant technicians.

Vlad Ratushny’s Hair Sciences discusses the topic of exosomes. Recently, there has been excitement over the potential of exosomes as a novel therapy for hair restoration. Exosomes appear to promote hair follicle stem cell proliferation and growth and may present a game-changer to the field of hair restoration; however, we need to keep in mind this therapy is in its infancy and much work is required to determine where exosomes fit in hair restoration. Efficacy and safety have yet to be evaluated, as detailed by the warning issued by the FDA regarding the general use of exosome therapy (reprinted on page 18).

A case report by Igor Bottura discusses the phenomenon of kinky hair after FUE and provides some insight into the causes. Excessive and careless graft handling with forceps during graft placement in the recipient area is suspected in the case presented. Although this phenomenon has been known for 25 years, not a lot of research has gone into determining why it happens, and thus, how to prevent it.

The new FORUM ePUB journal site is up and running! In his article, Robert True gives a detailed breakdown on how to use the site, which facilitates the search for past Forum articles. This site is a great step forward for the ISHRS enhancing the visibility of the Forum and the ISHRS to the public and to the medical community at large.

I look forward to working with Jeffrey, who has a wealth of clinical and academic experience; I know I will benefit from his unique perspective and wisdom. I can see that there are definite advantages to having him as my co-editor.