



Two New Instruments for Automation

Originally published in *Hair Transplant Forum International July/August 2004*
William R. Rassman, MD Los Angeles, California

I have been asked to comment about a set of instruments I showed in video format to a limited number of individuals at the 2003 ISHRS Annual Meeting in New York (in the automation workshop and in a series of private viewings). These are general comments about the instruments. I expect to write a paper that will define these instruments and their uses more clearly. As many of you who know me, you have seen my relentless struggle to develop instruments that would solve the problems we confront for training our staff in cutting and placing follicular unit grafts.

The Problem

The process continues to be an intensive *people dependent* process and therefore the results of the surgical hair transplant procedure reflect the quality of our staff on the day they did the work. Many doctors are lucky to have one "superstar" on staff whose skills meet the needs of the surgeon's hair transplant business. Most doctors live in fear of that "superstar" falling prey to sickness or pregnancy, or just losing that person to another competitor who gets into a bidding war for their unique and valuable services. Our hair transplant quality reflects not only the skills of our staff, which often take years to develop, but the daily variability of our staff based upon mood, health on that day, fatigue as the day progresses, the politics of the office, and the many variables associated with any tedious labor-intensive process like today's follicular unit transplant (FUT). I see an aversion to doing FUTs based upon the difficulty of cutting and placing a large number of grafts in any single procedure and, in New York, comments against the FUT procedure seemed to reflect the difficulty of the entire process from organization through training. There have been no negative comments with regard to the quality of the end result for FUTs once an adequate number of grafts have been transplanted in close proximity to each other.

I have always believed that building the infrastructure to perform large scale FUTs was not easy. For many doctors FUTs are impractical because the skills did not build to a satisfactory level based upon a limited number of procedures performed each week. Small FUT grafts are subject to the "evils" of drying and trauma far more than larger grafts, so it is no wonder that larger grafts are the choice for many doctors performing hair transplants. I have been sympathetic with those who have tried and either failed to build that infrastructure or decided against offering FUTs because of the internal costs (money, training, recruitment, stress on the doctor and staff, etc.).

Goal

My efforts have been to equalize the surgical team so that those individuals who do not perform the procedure every day will be able to perform the same quality of transplants as those of us who do several procedures each day. My hope has always been to make a hair transplant procedure just like any other surgical procedure, one that depends upon the quality of the surgeon and his or her assistant without the large team we are so dependent upon today.

Solution

I can now state without hesitation that I have solved the graft placing problem with two unique instruments that I may demonstrate at the 2004 ISHRS Annual Meeting in Vancouver. These two instruments have a short training time and I have been able to teach their use in a matter of minutes, even to those individuals with no prior hair transplant experience. I have called these two instruments: 1) The **Percutaneous Implanter Pen™** [PIP] and 2) **Hair Implanter Pen™** [HIP]-a totally new design from the older commercial device designed by Pascal Boudjema. As implied in the name, the PIP ("percutaneous") allows the surgeon to place grafts directly into the intact skin in a single step. It functions similar to the "Carousel," which many of you have had the opportunity to see and use at a previous ISHRS meeting (in Washington, D.C.) but it is easier to load, sucking in the grafts prior to placing them, one at a time. The HIP, on the other hand, was designed to place the grafts into pre-made sites and it also loads quickly, sucking grafts into the unit efficiently and quickly. There is an entire science in these two instruments, both with respect to their unique design as well as in their use. I cannot go into the science in this brief commentary.

The legal implications for technician use of the PIP are tied to the laws of the State where you practice. In California the medical assistants use (for "incisions" into an intact skin) is restricted to only venopuncture for properly trained phlebotomists. The State of California notified me in late March that it has refused to review the restriction on the medical assistants despite an extensive submission by me asking for a reexamination. Although these two instruments solve the placement problem, which I believe is the most difficult part of the FUT process, there are cultural and habitual issues where skilled teams may not be willing to accept these instruments. I have seen such resistance, even from my own staff, because the mastery of the forceps has become a "badge of honor" that has been earned by all of those on my staff who have been with me for years. When comparing HIP placement with forceps placement in a skilled technician's hands,

speed and delicacy in handling are comparable (as was the case for Dr. Boudjema's HIP). The acceptance of these instruments therefore may not be an easy process. Clearly there is no financial incentive for commercial exploitation of the new HIP.

Conclusion

Automation solutions are within our grasp, but isolated solutions that are not packaged to solving all of the "people" problems, I believe, cannot take root in today's climate. Solving the "total" hair transplant automation problem could expand the provider pool and open the market for new doctors entering the business. More providers will expand the market. Providers who enter the business today are significantly handicapped because they cannot provide FUTs that are competitive with the finest work being done today. For automation to succeed, it will have to be packaged with a harvesting instrument. Hair transplants will become more prevalent when the *surgeon and assistant* can supply the service like any other cosmetic surgical procedure.

- [Back to Medical Publications](#)