



## Is a Graft a Graft? That is the Question!

Originally published in *Hair Transplant Forum International*, January/February 2006

An editorial by William R. Rassman, MD, Los Angeles, California

Is an FUE (Follicular Unit Extraction) graft in the hands of one doctor the same as an FUE graft in the hand of another? Or for that matter, is what is claimed to be a follicular unit the same in anyone's hand? Do grafts that come from FUTs (Follicular Unit Transplantation), FUEs, FITs (Follicular Isolation Technique) or MUGs (Multi-family Unit Grafting) have a common thread so that the public can understand the arcane language we have created? Should we define things like: the risks of hair loss in each particular graft as it is related to its harvesting technique, the damage to the donor area that is intrinsic to the procedure or technique used, or the risks of buried grafts with an FUE procedure? When we feel the need to market our skills, should we (a) disclose the basis by which we promote how wonderful we think we are, and if so (b) should we tell the patient whether we met our criteria for the 'procedure' that we performed on him/her? How do we deal with the differences between FUT's and MUGs? Does it really matter what we call what we do, or do we just call it all "hair transplants"? These issues were important when the transition was made from mini-micrografting to FUT, but are now even more relevant with the increasing interest in FUE. (1)

When I started doing FUTs and FUEs, I was impressed by the variability of the yield between the various techniques. Our article on donor area harvesting by the strip method showed the comparison between techniques as we were evolving from dissection with loop magnification to the microscope. (2) Although I can not perform a 100% efficient FUE procedure, because I continue to be humbled by patient variations in hair yield, I am told by some of my colleagues (who also perform similar procedures) that they experience no variability. Am I doing something wrong or are we talking about something completely different? Should we have a metric to explain just what we are doing and if we do, should that metric be included in the operative record we create and in the informed consent we discuss and disclose to our patients?

I would like to give a specific example to illustrate some of the issues relating to: (a) marketing and promotion, (b) actual patient costs, (c) patient education, (d) the value of what we actually do in terms that everyone can agree makes sense, and (e) how we communicate (a-d) to our patients. What I am speaking about involves more than just FUE and FIT comparisons; it involves honestly representing to our patients, and to our colleagues, exactly what we do. In this way doctors can advance the science of hair restoration surgery by ready comparisons of different techniques and patients can better evaluate the procedures offered by different physicians - both from a medical and from an economic perspective.

**FUE Example (see table 1 below):** Let's assume that when Dr. X is performing an FUE procedure he obtains 23 grafts (22 single hair grafts and one 2 hair graft) and he promoted himself as producing close to 100% yield on FUE (which means that the doctor counts every graft that contains hair). He charges the patient \$5/graft (\$115) which yields 24 hairs (or \$4.79/hair). Dr. X was observed by a third party who noticed that each FUE graft actually contained all or part of 3 hairs each so Dr. X's yield was 35% of the total harvested hairs contrary to his proclamation of his proficiencies. Dr. Y's staff performed the same FUE, (let's postulate that he yielded two hair grafts or 46 hairs) similarly promoting himself as producing close to 100% yield on FUE under the same 'meaning' as Dr. X. At \$5/graft, Dr. Y's patient was charged \$115 (\$2.50/hair) with a 66% yield of hair. Dr. Z performed the same procedure as Drs. X & Y and his patient was charged \$115 (\$1.67/hair) with a 100% yield (23 three-hair grafts) confirmed by the third party. These imaginary metrics do not consider 'missed' grafts where holes were created without hair yields, or buried grafts which were lost into the deep dermis when the sites were made and may contribute to cysts and other foreign body reaction.

What this example unfortunately demonstrates is the bizarre differences in value that the patients received and the lack of any means for the patients to determine this value. So my first rhetorical question is: how much of what we actually do should the patient become aware of? In other words, what is our responsibility to actually communicate what we do to our patients? On a prospective basis, when we tell our patients about how great we are, should we express the value of what we do through some standardized metric? What should be included in the 'informed consent' for our patients? Should we include the negative value of the damaged hair in any of our discussions or in the documents that we prepare?

| <b>Table 1: Follicular Unit Extraction</b> |               |               |               |
|--|---------------|---------------|---------------|
|  | Dr. X         | Dr. Y         | Dr. Z         |
|  | 23 FUE Grafts | 23 FUE Grafts | 23 FUE Grafts |
| # of 1 Hair Grafts                         | 22            | 0             |               |

|                       |          |          |          |
|-----------------------|----------|----------|----------|
| # of 2 Hair Grafts    | 1        | 23       |          |
| # of 3 Hair Grafts    |          |          | 23       |
| # of 4 Hair Grafts    |          |          |          |
| Total Number of Hairs | 24       | 46       | 69       |
| Rate per Graft        | \$5.00   | \$5.00   | \$5.00   |
| Patient Charge        | \$115.00 | \$115.00 | \$115.00 |
| Rate per Hair         | \$4.79   | \$2.50   | \$1.67   |

**Strip Harvesting Example (see Table 2 below):** Let's assume that we work in an ideal world and our staff is so efficient that they are successful at following and executing our directions while achieving 100% of the goals we define for them. For the purist who uses the microscope for all dissection of follicular units, the yield from a strip should approach 100%. Let's continue to assume that if we count the follicular units and hairs in an excised strip, we find 1, 2, 3 and 4 FUs. Let's continue to assume that Dr. A (efficiently) achieves 100% hair yield with 23 grafts (4 single hair grafts, 12 two hair grafts, 4 three hair grafts and 3 four hair grafts) for a total patient charge of \$115 (at \$5/graft or \$2.09/hair). Now let's assume that Dr. B is also efficient, only limited by the technique and tools he uses. Dr. B performs the same procedure trying to yield 100% of the hairs present in the strip, but because he does not use the microscope, the yield should decrease by approximately 20-25% (1). So this patient would receive approximately 2 single-hair grafts, 9 two-hair grafts, and 5 three- and four-hair grafts, for a total count of 16 grafts at \$5/graft or \$80 (\$2.16/hair). Dr. 'C' instructed his staff to break up the follicular units into as many single hairs as possible and his staff was 100% efficient in using the microscope for maximum yield. Dr. C's staff has created 52 grafts of one hair each. He now has a yield of 52 single hair grafts for a charge of \$260 (\$5/graft or \$5/hair). With follicular units broken up into single hairs, even under the microscope, he almost certainly will not get 100% growth, so his patient who paid a much higher fee when compared to Dr. A, now gets far less value as hairs whose growth centers were destroyed in the surgery will not have 100% growth. Dr. 'D', who exclusively performs MUGs, also charges by the graft at the same \$5/graft rate. If we assume that he too, uses a microscope. He takes out a larger strip and obtains 23 grafts. His fee will be the same \$115 as Dr. A, but his patient's cost per hair is significantly less (we will assume that the number of hairs per graft are twice Dr. A's hair count) or \$1.60/hair. From a hair count perspective and cost per hair, Dr. D is a hero, as he produces the greatest value with MUGs which are heavily promoted by Dr. D as a more competitive service (than Dr. A). We can now add Dr. E into the equation, who performs the older style 2.5 - 3.0 mm grafts which will contain an average of 20 hairs each. He changes his marketing to reflect a charge per hair so that he can promote a lower price to potential customers, charging \$1/hair. He is the real hero in value, with more hair even than Dr. D's MUGs, dropping the costs on an individual hair basis but collecting \$460 for the procedure. The problem, of course, is that this procedure does not meet today's 'standard of care'. For the mix, we will also give Dr. E the power to perform scalp reductions as a way to save hair for a hair transplant (a common old misconception that reflected future hair transplants into a smaller bald crown) so that the patient costs may be lowered even further, giving Dr. E a real competitive edge and a more profitable business.

|                       | Dr. A           | Dr. B           | Dr. C           | Dr. D           | Dr. E           |
|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                       | 23 Strip Grafts |
| # of 1 Hair Grafts    | 4               | 2               | 66              |                 | N/A             |
| # of 2 Hair Grafts    | 12              | 9               |                 |                 | N/A             |
| # of 3 Hair Grafts    | 4               | 3               |                 | 23              | N/A             |
| # of 4 Hair Grafts    | 3               | 2               |                 |                 | N/A             |
| Total Number of Hairs | 52              | 37              | 66              | 69              | 230             |
| Rate per Graft        | \$5.00          | \$5.00          | \$5.00          | \$5.00          | N/A             |
| Patient Charge        | \$115.00        | \$80.00         | \$330.00        | \$115.00        | \$460.00        |
| Rate per Hair         | \$2.21          | \$2.16          | \$5.00          | \$1.67          | \$1.00          |

What I am trying to illustrate is that our desire to promote ourselves and our practice in the best possible light may be in

direct conflict with our moral obligation to uphold our Hippocratic Oath. In the examples above, Dr. X has much to learn about FUE technology and the techniques he must use to be a quality FUE surgeon and Dr. C, demonstrated a complete absence of morale fiber, yet these doctors thrive in our midst today. On the highly competent side, Dr. Z demonstrated a mastery of FUE technology and Dr. A demonstrated a mastery of efficient strip harvesting. But it is sad to say that both Dr. A and Dr. Z have the hardest business model to follow as they try to balance the building of a hair restoration practice with the pursuit of the golden standard for the respective technologies.

Although I feel that Minigrafts cut to size and MUGs have a role today, I believe that the industry should not endorse any form of deceptive representations which places the patient's interest above our own business interests. We, as a professional society, should not condone anything that goes against the Hippocratic Oath.

Should we standardize our language and take a position on the ethics of those within our ranks, like Dr. C, or those who transplant hair to increase their fees by transplanting patients who either do not need transplants or those who extend the number of grafts transplanted just to maximize the professional fee?

I have personally taken great pride in the changes in our profession that have been made possible by the educational efforts of the ISHRS. Today's techniques are becoming more standardized and there is a general agreement as to what is both ethical and proper. I have been proud to be a member of the ISHRS as we continue to develop new technologies and offer better procedures to our patients - and particularly as we work together towards these goals. Our profession is still at a frontier that is rapidly changing, so I hope that this editorial encourages us not only to reflect upon the road we have traveled, but stimulates us to consider the ways that we can positively influence what lies ahead.

## References

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