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Notes from the Editor Emeritus

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The Paradox of Crown Transplantation

The posterior region of the scalp has numerous designated anatomical terms, such as the crown, the vertex, and the tonsure, all which represent the area commonly referred to by the lay public as “the back of the scalp”. Hair loss in this area can be of considerable consternation for men who experience male pattern hair loss. Many patients with hair loss in this area seek some type of restoration procedure or medical therapy or contemplate the use of a hairpiece. Transplant surgeons are sympathetic to these patients’ needs and recognize the immediate benefits of grafting this area. There is a common belief among the lay public that vertex area baldness eventually stops and hair loss is stabilized. The pretense that vertex baldness becomes stagnant is false, and patients need to be educated to that fact. The vertex zone will continually expand over time. The process is unrelenting. The five-year study conducted by Merck on male pattern baldness clearly demonstrated the progressive non-relenting course of male pattern baldness.

Because of the progressive nature of male pattern hair loss, this Vertex represents a true paradox to surgeons. Transplanting this area generally satisfies both the patient’s and the surgeon’s short-term goals. However, the long-term cosmesis can be quite a different matter. As hair loss progresses, a halo of baldness will form around the transplanted zone. This appearance has no counterpart in nature and can be quite bizarre. Fortunately, most cases can be restored to a natural appearance with further transplanting. The long-term solutions may be less easily addressed. Limitations of transplantation are imposed due to the requirement of a large percentage of the donor reserves. Once the donor hair reserves become depleted, the halo will continue to progress and the “black hole” or the “bottomless pit” (referencing the fact that this area can consume the entire donor area and still leave the surgeon and patient desiring more grafts) becomes a major concern. Because there is no permanent border, the peripheral border will keep migrating, which will result in an island of central hair. This isolated tuft of transplanted hair can thus become more of a concern than the original bald or thinning state. Lessons of the past have shown that scalp reductions alone will not eliminate this problem. Taking this into consideration, can the vertex be safely transplanted? If we possessed a crystal ball to aid in determining the extent of hair loss through one’s lifetime, then the vertex area could be transplanted with complete impunity. Currently, we cannot do so. The surgeon must realize the tremendous risk he or she replaces a patient in when transplanting this area. Dr. Manny Marritt refers to the overwhelming responsibility that is imposed upon the transplant surgeon: “As I step back and look at the hairline I have just drawn, I further remind myself that this hairline and the graft disbursement must look natural, not only when he is 35 but also when he is 45, 55, …and 65. That simple office procedure’ has, in reality, just handed me a life sentence of follicular responsibility. The weight of this awareness is not only humbling; it can be, at times, simply overwhelming.” Dr. Marritt’s comments in this quotation were directed to the anterior hairline, but the sentiments of responsibility are applicable to the crown as well.

The Safety Net

Transplanting the crown is indeed a decision that cannot be made lightly. The dogma that no vertex should be transplanted should not go unchallenged because there certainly are patients for whom this is not an issue. A 55-year-old with dense terminal hair and a small 6 to 10 centimeter oval area of alopecia on the vertex may indeed be a candidate. However, for men under the age of 30, transplanting the vertex should be viewed with extreme skepticism. The ability to utilize medical therapy to stabilize male pattern hair loss has relieved some degree of

concern that future hair loss will create a condition without a surgical remedy. However, finasteride is not the ultimate safety net. Even for the patient who is currently tolerating this drug and receiving the benefits of stabilization, there are a number of factors that do not allow medical therapy to be the panacea for vertex transplantation. First, the patient may develop a side effect finasteride and be forced to withdraw the medication. Second, the patient may also find himself in a situation where he is no longer able to afford the drug. Third, the drug may be recalled due to unforeseen long-term problems. While this last scenario is quite unlikely, the possibility cannot he ignored. Thus, ongoing therapy with finasteride while transplanting the vertex should not be considered risk-free.

It is imperative the transplant surgeon shoulder the risk of vertex transplantation with the patient. He or she should guide the patient to the best decision. The lay public cannot comprehend the eventuality of progressive nature of hair loss, and therefore, the above arguments often give way to the desire to alleviate the anxiety of the vertex baldness.

The Dilemma of Guidelines

In an effort to do what is best for the patient, many transplant surgeons feel that it is most important to maintain a good rapport with patients and convince them that any short-term benefit may have detrimental long-term consequences. Some surgeons feel that it may be appropriate to perform a small “conservative” session so that the patient will not go elsewhere and have what could be a potentially injurious procedure. The topic of guidelines continually resurfaces at meetings and discussions among concerned surgeons. Guidelines for vertex transplantation have not been created due to the fact that dogmatic views are seldom accepted in medicine. Published guidelines are difficult to embrace by experienced surgeons who recognize the need for occasional departure. These departures are critical to the practice of medicine and should he embraced and supported. Surgeons are wary of a legal community that has neither the desire nor the ability to recognize exceptions once guidelines have been published. Thus, well-meaning guidelines will work against the good of the whole in that they could be used against all surgeons in all cases of exceptions. It is not this author’s intent to create rigid guidelines with no flexibility. Our field deserves better.

Views of Other Surgeons

Dr. Richard Shiell, Editor Emeritus of the Forum, with over 38 years of experience and thousands of cases, states: “It must always be remembered that the crown can become a bottomless pit into which vast numbers of grafts can be poured into for minimal cosmetic benefit. If you want to be, 100% secure then don’t do the crown area at all. Most of us can live with a little risk, however, and in carefully selected patients of 35 or over, where history and examination show that the risk of massive expansion is small, then the surgeon may agree to graft the crown. The potential risks and contra-indications must be explained to the patient and he must sign to say that he understands these risks. Under these conditions you should have a happy patient and there should be few problems in years to come.”

Dr. Bill Parsley lends his scholarly opinion on the subject. “My present ‘guideline’ is to not transplant the vertex until age 45. This doesn’t mean that I will transplant the vertex at that time; only that I postpone my decision until then. A person’s appearance is directly related to the facial framing of hair. The vertex has very little cosmetic impact. A balding vertex can cover an area of over 100cm_ while expanding into normally used donor areas. I have seen many otherwise successful transplants ruined by trying to do too much. My ideal vertex patient is over 50, and has a small bald area with abrupt borders. Also, mature patients who have had their frontal and mid-scalps restored, yet have substantial donor hair remaining, are potential good candidates. I don’t try to plant too thickly and mainly use uniform density instead of graded density, which, in my opinion, makes future commitments more difficult. View the vertex as you would sirens on the rocks.”

Dr. Bobby Limmer, the father of modern transplantation, related the following: “The most difficult task the consulting physician faces is educating and convincing the hair loss patient that the frontal and mid-scalp restoration constitutes 90% of the value while vertex (crown) restoration produces the other 10%. The youthful patient is often the most difficult to convince as well as the most likely to develop substantial progression of his alopecia. There are no fixed rules, but these principles have served us well over the past 17 years of follicular unit transplantation methodology: 1) the frontal and mid-scalp restoration will he completed first. Only after that will the crown be considered. 2) Medical therapy, combined topical minoxidil and oral finasteride, will be used while the frontal and mid-scalp restoration grows in. 3) in those less than 45 years of age, the crown will not be transplanted. In those in which the crown is transplanted, the goal is to cover the area with cosmetically acceptable but not maximal density coverage in order to conserve donor hair for the potential future needs.”

Will crown area transplantation eventually go the way of scalp reductions? Time will tell. Until then, it is our responsibility to protect our patient’s long—term cosmesis.

Primum non nocere

FURTHER READING

1. Marritt, Emanuel. The Overwhelming Responsibility. *Hair Transplant Forum International*, Special Edition, 1993. p. 4.