Commentary on: Use of Nape and Peri-Auricular Hair by Follicular Unit Extraction to Create Soft Hairlines and Temples: My Experience with 128 Patients

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For many professionals, as well as the lay public, the results of hair transplantation still evoke images of a pluggy or doll’s hair appearance. However, the standard of care today is to create a hairline that appears completely natural and not surgically created. Advances which have led to this current expected level include improved instrumentation, clinical observation of normal hairlines, and recognition of the different qualities of hair that reside in the safe donor area (SDA). Another recent advance in the field of hair restoration surgery is the donor harvest technique known as follicular unit transplantation (FUE). The primary advantage of FUE is the absence of a donor site scar following traditional strip excision. While there are several additional advantages to the FUE technique, the ability of a patient to wear a short hair style without a concern for donor scar visibility is the major reason patients choose this approach.

Another important concept of hair restoration surgery which is germane to this article is the “variable” permanence of the most inferior aspect of the SDA. The concept of donor dominance, which is the principle reason transplants work, was originally described by Oreintreich, who demonstrated the “permanence” of occipital and temporal hair (ie, the donor fringe or SDA) when transplanted into areas of alopecia. Not recognized at the time of Oreintreich’s original description, but addressed by Unger and Cole and recognized by others subsequently, is the often progressive nature of hair loss in the SDA from the bottom up. Dr Umar has focused this article on the use of nape and peri-auricular (NPA) hair as a specialized donor source for creating a natural hairline and described a method to determine the relative longevity of this hair in this donor region.

The three primary subjects Dr Umar addresses relative to the NPA are: (1) effectiveness of NPA hair to create a natural anterior hairline; (2) determination of NPA permanence over time; and (3) a specialized tool for FUE harvesting in this region.

Effectiveness of NPA Hair to Create a Natural Anterior Hairline

Observation of a natural non-grafted anterior hairline reveals an irregular array of single and double follicular unit groupings with larger caliber, denser follicular clusters more posteriorly. Dr Umar has very astutely chosen the softer, slightly miniaturized hairs found in the NPA for what he describes as vanguard (leading edge) hair. The hairline examples he provides are magnificent and meet every criteria for a state of the art hairline restoration. The surveys that were sent out to patients with NPA hair placed at the hairline certainly support the high satisfaction most patients have with this approach. However, to really assess an increase in patient satisfaction as a result of NPA grafts at the hairline, another study would be needed comparing

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this current cohort with the same author’s patients who had hairline reconstruction using conventional grafts only from the SDA.

Nevertheless, the refined use of specialized hair in restoring a natural hairline is probably the most important contribution of this article. Put another way, not all donor hairs from the same individual are the same quality. Like an artist with a palate of different colors and textures, the hair restoration surgeon can choose specific donor hair to achieve intended results.

While Dr Umar has expressed this artistry through the unique use of NPA hair, in daily practice the use of NPA hair is seldom required or utilized. More commonly a natural anterior hairline is created by selecting a distribution of selected single and double follicular units from the softer hair found in the temple region of the SDA. These delicate one and two hair grafts are placed in an irregular pattern with larger 3+ hair follicular unit grafts positioned more posteriorly (Figure 1).

While the use of FUE-harvested NPA hair is an effectual innovation and concept, one of the primary reasons this donor area is traditionally less favored is the concern for scar visibility if a strip harvest is performed in this area. The use of FUE with a small ( < 0.8 mm punch) eliminates this visual deformity, as Dr Umar has documented.

Another traditional concern about using donor hair from this low fringe area is the ongoing male pattern hair loss which could eventually also take place in the grafted recipient area over time.

**Determination of NPA Permanence Over Time**

The primary objection to using NPA hair is the potential for loss as progressive pattern alopecia occurs. If the natural progression of NPA hair occurs *in situ*, it will also be shed even though it is transplanted at the hairline. Thus, to assess suitability of the NPA hair for long-term use, the

![Figure 1.](image-url)
The author has described a subjective “shave test.” In this test, NPA hair is visually judged to be of similar density and caliber when compared to the superior permanent hair in the classic SDA. Based on the analysis and confirmation of terminal hair in the NPA, patients were determined to be good candidates for donor harvest in this region. In a follow-up patient survey it was estimated that about 25% of patients reported that these “suitable” hairs were actually shed. Curiously, the author also notes that, “to compensate for this [loss of NPA hair] SDA hair was incorporated into the hairlines and temples for patients in a manner that leaves the patient with a conventionally transplanted hairline and temple look in the event that some grafts from the NPA are eventually lost.” Which begs the question: then why bother using NPA hair at all? And the answer is simply to have this option available in selected cases and as a part of the hair restoration surgeon’s armamentarium for selective situations. These selected cases include those mentioned by the author, namely certain hairline plug repair cases, female hairlines which are naturally very soft at the leading edge, and in certain racial demographics, such as Asians, whose scalp hair is generally quite coarse.

A Specialized Tool for FUE Harvesting in this Region

Dr Umar’s modified FUE tool is certainly creative and obviously works for him. It should be noted, however, that a standard 0.8 mm FUE sharp or blunt punch (Alphagraft Hair Implant, Inc., Grand Prairie, TX) also works exceedingly well, is commercially available, and fits on a standard power assisted hand piece.

It was somewhat surprising that no mention of the importance of Propecia (Finasteride; Merck & Co., Inc., Whitehouse Station, NJ) was included in this article. This medication is the only drug approved by the Food and Drug Administration to specifically stop hair loss, and has been shown to be 90% effective in preventing ongoing male pattern hair loss in the crown.8-10 In clinical practice it is not uncommon to see this same salutary effect in the frontal scalp as well as in the NPA. Dr Umar also cites several other limitations to the study design. Nevertheless, this article is a welcome contribution to those active in hair restoration surgery because it describes the first large series using NPA hair, as well as an approach to selecting the long-term suitability of this donor area. For the plastic surgeon not actively performing hair transplants or just starting out in this field, this is also an especially important paper. It emphasizes the highly developed refinements and subtleties of hair transplantation using FUE as a donor harvest technique. Additionally, this article illustrates the variation in hair qualities within the donor area, from which a surgeon can create a great hair transplant result.

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