Correcting problems in hair restoration surgery: an update

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The techniques of hair restoration surgery have advanced particularly rapidly over the past two decades. These advances have achieved a current standard that allows natural appearing surgical hair restoration that does not provide visual evidence to the casual observer that a surgical procedure was performed [1–4]. The standards of surgical care in previous years could not provide this same advantage to patients [5]. Today there remain a variety of unnatural surgical hair transplant results in patients whose procedures were performed using older techniques. These patients often bear the physical and emotional scars of an unnatural hair appearance and harbor a distrust for the field of hair restoration surgery and its surgical practitioners. The challenge for the hair restoration surgeon is to provide a level of expertise and honesty to these unfortunate patients to restore their appearance and self-confidence.

The purpose of this article is to describe the most commonly seen problems in clinical practice and describe a practical approach to their correction. The majority of patient complaints seen clinically concern a straight, pluggy, or cornrow appearance of grafts or the malposition of their anterior hairline. Patients also frequently complain about the progression of their own baldness and the resulting separation of the previous transplants from the receding hairline. In the majority of patients a clinically significant improvement in appearance can be achieved after one corrective procedure; however, as a general rule two or more staged operations are needed to maximally improve the results of previous hair restoration procedures. The techniques of anesthesia, scalp preparation, and instrumentation have been published and reviewed elsewhere [6,7].

Correcting cornrow plugs at the anterior hairline and crown-vertex area

The appearance of rows of hair plugs resembles a cornfield, thus the commonly used term cornrow hair transplant. The first person to describe a technique for improving this unnatural plug appearance was Lucas [8]. Others have modified this original technique and described other approaches to correcting previous unsightly hair transplant results [9–13]. The original description by Lucas was to partially excise the plugs using a 1.5- to 1.7-mm punch biopsy instrument. His original description was to allow these small circular wounds to heal secondarily. It is preferable to close these circular wounds because of annoying serous seepage from the open sites and the delay in separation of the plug reduction site eschar. The current approach is to close the wounds, primarily with a 3-0 chromic suture (Fig. 1).

In general, the current approach to correcting the plugs at the anterior hairline involves performing plug reduction and recycling (PR&R). The technical details of the procedure have been detailed previously [9]. This procedure is aggressively applied to at least the anterior two rows of plugs. In general, during the first corrective session every other plug in a row can be selected for PR&R. The plugs to be reduced are selected and trimmed to a length of approximately 3 mm. A punch biopsy tool that is the same size of the plug or slightly smaller is selected. For example, the typical size for a traditional plug is 4 mm, so a 3.75-mm punch biopsy would be selected for the plug reduction. Using a smaller punch size would leave
too much residual plug and incompletely treat the clumped and often compressed plug appearance. The punch is positioned eccentrically to leave a crescent shape of the remaining original plug, which effectively leaves behind a linear graft of approximately three to four hairs.

The recycled hair and the additional hair harvested from the occipital region are densely transplanted anterior and posterior to the plug reduction sites. Usually several wide tracks of alopecia exist between the linear rows of plugs, which need to be densely transplanted. Plugs that exist more than 2.5 to 3 cm posterior to the anterior hairline can generally be left intact. Aggressive management of the first two or three rows of plugs as described is usually all that is needed to soften and camouflage the leading edge of cornrow-appearing grafts. In this way the density of the plugs posteriorly (the only redeeming quality of large, circular grafts) can be combined with the soft look of the anterior hairline zone.

When removing the plug it is important to angle the punch parallel to the follicles. Reducing the number of transected hairs in the resected plug maximizes the recycling yield. Care should also be taken to pass the punch instrument deep enough to include 1 to 2 mm of subpapillary fat. Including the entire papilla and its underlying fat accomplishes two goals: (1) removal of the entire plug papilla increases the likelihood of no regrowth of the original in situ hair, and (2) sufficient fat below the intact hair follicle helps to maintain viability of the grafts as they are trimmed and recycled. The use of sharp excision punches and frequent exchange of a punch when it becomes dull is also an important technical point to minimize shearing and damage to the peripheral plug follicles.

Accurate assessment of the hair restoration problem is the key to designing the best possible solution for the patient. It is important to determine the objective problems of the previous procedures and to integrate the chief complaints of the patient. For example, the patient might be primarily concerned with the pluggy appearance in the crown area but not terribly unhappy with the hairline appearance. In this
case, the surgical priority and the use of valuable and limited donor hair needs to be focused in the crown region.

Because hair loss follows typical patterns according to the Norwood classification scheme, repetitive scenarios of problems from past transplants frequently appear. The cases that follow are presented to illustrate a series of different types of problems. They are presented as progressively more complex cases of repair. For purposes of organization, the levels of complexity for repair are categorized as minimal, moderate, or extreme.

Minimally complex scenarios

The first two cases illustrate situations that are relatively straightforward to repair. These cases and ones similar to them can usually be corrected to an acceptable level with two procedures. The three most important features that render these cases minimally complex to repair are:

1. relatively high position of the hairlines
2. minimal to moderate nature of the plug intensity
3. moderately plentiful donor hair supply in the occipital scalp

Case 1

Case 1 (Fig. 2) was a 28-year-old man who underwent two sessions of 4-mm plug grafts at an earlier age. The grafts were interspersed with his existing hair, which had been progressively lost over the last 5 years. His exposed plugs were located at 9 cm from the glabella. Because of the height of the plug hairline, a straightforward procedure of PR&R could be performed. In addition to the recycled hair, 1200 grafts were harvested from the occipital donor

![Fig. 2. Case 1: minimally complex scenario. (A) Pre- and intraoperative appearance following the first session of PR&R. (B–D) Results at 1 year following the last procedure. Two sessions of PR&R plus 1200 grafts were performed.](image-url)
area and grafted in the anterior hairline. In two sessions the patient’s hairline was acceptable.

**Case 2**

Case 2 (Fig. 3) was a 33-year-old man whose straight line of plug grafts was exposed prominently with progressive loss of the frontal tuft he had when the plugs were planted. The best approach for this patient was also a PR&R procedure because of the high position of his hairline and the relatively plentiful supply of donor hair. In addition to the recycled hair, 1800 grafts were harvested from the occipital donor area and grafted into the anterior hairline. Although Case 2’s hairline was more intense than Case 1’s hairline (see Fig. 2), two sessions of PR&R and a greater number of grafts were needed.

**Moderately complex scenarios**

The next two cases illustrate situations that are relatively more difficult to repair. These cases and ones similar to them can usually be corrected to an acceptable level with three procedures. The four most important features that render these cases moderately complex to repair are:

1. intensely pluggy hairlines caused by creation of a wall of grafts
2. relatively coarse hair texture that creates an even more solid hairline appearance
3. moderate depletion of donor hair supply in the occipital scalp
4. problematic plug grafts in the crown-vertex area

An important common thread to the planning of the next three cases is the simultaneous corrective repair in the frontal and crown area. Surgically appropriate aggressive planning and execution is essential to complete the repair in as few procedures as possible. Patients certainly appreciate this approach because they are naturally frustrated with their current hair appearance. In addition, recovery from simulta-
neous frontal and crown surgery is not generally prolonged compared with surgery on a single site.

Case 3

Case 3 (Fig. 4) was a 56-year-old man who wore a hairpiece to hide the unnatural appearance of his previous transplant and progressive hair loss. Because the hairline was at a reasonable height and the sharp hairline did not cross the midline, the plan for PR&R was acceptable. Another option would have been direct and total excision of the entire anterior hairline, including the nongrafted forehead.

Fig. 4. Case 3: moderately complex scenario. (A) Anterior hairline appearance, preoperative appearance, first session intraoperatively, results following first session, and two sessions intraoperatively. (B) Crown-vertex appearance, preoperative appearance, first session intraoperatively, results following first session, and two sessions intraoperatively. (C–E) Results following the third session of PR&R plus 2000 grafts. The results are seen 1.5 years following the last procedure.
scalp. Case 3 underwent three sessions of PR&R to the anterior hairline and crown-vertex area. He also had 2000 grafts transplanted to the hairline, forelock, and crown-vertex area.

Cases 4 and 5

Cases 4 and 5 (Figs. 5, 6) were two men in their mid-40s whose coarse hair rendered the pluggy hairline an intense wall of hair. It took four sessions to soften the intense frontal line of hair and eliminate the plugginess of their crown grafts. Both patients underwent PR&R and approximately 1500 grafts at the anterior hairline and crown-vertex area. Both patients underwent their procedures before linear excision of hairline grafts was recommended more frequently. The linear excision technique would have expedited the completion of the repair and eliminated one or two plug reduction sessions.

The fact that two patients can be grouped together in one similar description and plan underscores the common theme of their problem. The chief problem they shared was the coarse nature of their donor hair, which produced an intense wall at the hairline. These grafts were performed at an early age in the crown and hairline areas only to be later exposed dramatically by progressive hair loss.

Case 6

Case 6 (Fig. 7) was the most challenging case to repair in this group. This 43-year-old man had a hairline that was at a good height (~8.5–9 cm), but

Fig. 5. Case 4: moderately complex scenario. (A) Anterior hairline appearance, preoperative appearance, first session intraoperatively, results following first session, and two sessions intraoperatively. (B, C) Results following fourth session of PR&R plus approximately 1500 grafts. Results are seen 1 year following the last session. Linear excision of the hairline plugs would have expedited the corrective process.
it was straight and pluggy-appearing. He had unsight-
ly plug grafts in the crown area and minimal donor
hair in the occipital area. The quality of his donor hair
was also thin with a silky texture. These donor qua-
lities rendered the hair less suitable for camouflaging
the scalp and the unsightly grafts. The emergence of
the round, pencil-sized scars from previous plug har-
vest sites were also beginning to show through his
thinning occipital donor area.

Given these preoperative assessments, a direct and
aggressive attack on the anterior hairline was planned.
A linear excision of the entire hairline was performed
with recycling of these plug grafts into follicular units
that were regrafted anterior to the hairline excision
closure site. Simultaneously, the crown plugs were
treated with PR&R. In the two subsequent procedures,
small grafting sessions of 600 grafts each were per-
formed to the hairline, forelock, and crown region
along with plug reductions in selected areas. The
principal advantage of the direct linear excision in this
case was (1) a focused assault on the unsightly plug
hairline with rapid improvement in its visual unsight-
liness, and (2) procurement of moderate donor supply
in the setting of limited occipital hair availability.

Correcting problems of hairline design

The correct design of an anterior hairline is of
equal importance to the use of hair grafts that are
natural and undetectable. Briefly, the hairline needs to be symmetric and exhibit bilateral temporal reces-
sions. A mature man’s hairline is usually not less than 8.0 to 8.5 cm from the midglabela area. The most common problems associated with hairline design are blunted temporal angles or hairlines placed too low on the forehead. The combined use of modified forehead lifting, scalp reduction, hair grafting, and plug reductions can result in a satisfactory improvement in patients who have problems with hairline design.

Fig. 7. Case 6: moderately complex scenario. (A) Anterior hairline and crown-vertex appearance, preoperative appearance. (B) Intraoperative excision outline, actual hairline excision specimen, appearance following closure of the hairline excision wound, and recycled hair grafts placed in an irregular distribution (all during first session). (C) Intraoperative appearance of first and second sessions of PR&R in the crown-vertex area. (D–F) Results following third session (one linear excision and two PR&R plus ~1200 grafts). Results are seen about 1 year following the last procedure.
Extremely complex scenarios

The next two cases illustrate situations that are among the most challenging to repair. The four most important features that often coexist that render problems of hairline design extremely complex to repair are:

1. hairline placement too low to be maintained for achieving a natural appearance

Fig. 8. Case 7: extremely complex scenario. (A, B) Preoperative appearance of low positioned, pluggy grafts that became isolated from the remaining hairline as a result of progressive hair loss. (C) Intraoperative appearance of first session of linear excision of entire anterior hairline and front three rows of plugs with recycling and second session of PR&R. (D, E) Result following third session of grafting alone plus 3000 grafts. Results seen are approximately 1 year following the last procedure.
2. extreme progression of hair loss that renders the current appearance most unusual
3. extreme depletion of hair in the occipital donor sites
4. moderate to considerable scarring in the scalp with poor mobility

Case 7

Case 7 (Fig. 8) was a 57-year-old patient who underwent isolated plug grafts at an early age when he had minimal hair loss in the temporal areas. With progression of hair loss he developed a “devilish” distribution of his temporal hair grafts. To camouflage this appearance he had a tight perm applied to his hair and chose a hairstyle similar to a loose “afro.” The level of the grafts was approximately 6 cm from the glabella. This low placement of the plugs rendered the surgical alternative of plug reduction and grafting within and anterior to the plugs a nonoption. Fortunately there was excellent scalp and forehead mobility and a good supply of donor hair available. He underwent a series of three procedures. The first procedure was a linear excision of the front three rows of the temporal plugs. The excision pattern extended across the entire forehead to avoid dog-ear deformities that would occur at either end of the temporal ellipses. At the first session he also received 1200 grafts to the anterior hairline and forelock area. The recycled temporal grafts and newly harvested donor hair served as the source for the grafts. He subsequently underwent two additional procedures with 3000 grafts to the hairline and forelock and crown area along with PR&R of the remaining plugs not originally excised in the temporal area.

In this case the benefits of the linear excision were those mentioned in Case 6 (see Fig. 7) and the ability to elevate the hairline. Elevation of the hairline is a key benefit to linear excision because it allows for robust grafting at an appropriate hairline level. The opportunity to graft 0.5 to 1 cm below the linear excision scar hides the linear excision scar and creates a soft transition at the hairline.

Case 8

Case 8 (Fig. 9) was a 30-year-old man who had undergone transplantation with 3-mm and 4-mm plugs at age 19. With progressive alopecia his plugs became more noticeable. The plugs also became progressively isolated from his receding hairline. The isolation of the hair grafts resulted in an alley of alopecia between his anterior hairline grafts and the receded temporal fringe. The plug hairline was also too low (7 cm from the glabella). Prominent and unsightly 4-mm plug grafts also pocked his crown-vertex area. The progressive hair loss between his frontal and crown areas resulted in a bizarre appearance. He had minimal donor hair available in the occipital area and his scalp was moderately tight because of scarring from anteriorly and posteriorly placed grafts.

The following were the requirements for this patient’s surgical repair:

1. elevation of the anterior hairline
2. reduction of the temporal alleys
3. softening of the anterior hairline plugs
4. elimination of the crown-vertex plugs
5. creation of a natural forelock distribution of grafts

The first procedure was performance of an M-shaped scalp reduction originally described by Marzola [14]. The M pattern has several advantages. First, all scars left from the excision fall within the zone of a forelock distribution and can be covered with subsequent grafting. Second, the M design permits maximum flexibility with regard to which flaps can be elevated and advanced. In Case 8 the anterior and two temporal flaps were advanced. This advancement accomplished hairline elevation with concomitant plug excision and raised the temporal fringe while eliminating the alleys of alopecia. During the first operation and in a series of three additional procedures, extensive plug reductions were performed in the crown, vertex, and forelock area. A total of 1800 grafts were ultimately transplanted with the donor hair originating from occipital donor harvest and plug recycling.

Correcting problems in the donor harvest site

Donor site scarring is an absolute consequence following a transplant. The scars can range from im-
perceptible to extremely deforming. The corrective approach depends on the following features.

1. objective size and subjective concern of scar deformity
2. laxity of the surrounding occipital scalp
3. vascular integrity of the surrounding scalp
4. degree of current hair loss and prognosis for future loss
5. shift or alteration of surrounding donor hair level
6. preferred hairstyle

Case 9

Case 9 (Fig. 10) was a patient who had a commonly seen donor scar problem that was approximately 1.5 cm wide. It had occurred because of multiple (two or three) donor harvest procedures in the same area with considerable residual tension on the closure line. Despite this, the surrounding scalp still had some suitable mobility. A running W-plasty was performed as a single stage procedure at the time of reharvesting for an additional transplant. In this procedure the peak on one side of the incision interdigitates into the valley on the contralateral side. Closure in this case was accomplished with minimal tension after some moderate wound edge undermining. Numerous permanent sutures were used in the deep layers to minimize wound edge separation postoperatively.

The rationale for the W-plasty technique is two-fold. First, it breaks up the linear nature of the scar and varies the direction of contractile forces during healing, thereby reducing recurrent scar widening. Second, it creates overlapping regions of scar alopecia with hair-bearing scalp. Some scar alopecia will inevitably remain, however, and the shingling effect of the irregular closure enhances scalp and scar camouflage. Other forms of irregular pattern excision such as a Z-plasty or Frechet’s triple flap [6,7] are based on the same premise, and these techniques can be used as indicated.

Fig. 10. Case 9. (A, B) 1.5-cm scar in donor area following numerous harvest procedures in the same site. Outline of running W-plasty excision and repair is seen. (C) Intraoperative incisions before excision and repair of scar. (D) Interdigitated repair and closure.
Case 10

Case 10 (Fig. 11) was a more dramatic example of overzealous harvest in the donor site. This patient underwent his third session of donor harvest in the same site. Although the skin edges were approximated, the vascular integrity of the scalp was sufficiently compromised with the tight closure that necrosis of the wound resulted. The most appropriate treatment in these situations was local wound care and

Fig. 11. Case 10. (A, B) Wound necrosis with early and late healing by secondary intension after multiple overzealous harvests in the same donor area. (C) Rectangular tissue expander is placed in preparation for scalp advancement and excision of the scar. (D, E) Immediate and healed results following the procedure.
measures to promote healing by secondary intension. After 6 weeks of local wound care the edges epithelialized. An additional 8 weeks were needed for the surrounding tissue to soften sufficiently to assess the reconstructive options for this donor defect. Mobility was limited and there was no possible way to reapproximate the wound edges primarily or with a W-plasty. A tissue expander was the only realistic option for successfully obtaining sufficient mobility of surrounding scalp to permit excision of the scar and reapproximation of the wound edges. A rectangular expander was used, and after 10 weeks of inflation the scar was excised and closed. In retrospect, a W-plasty of the expanded flap should have been performed and would have likely produced an improved result.

Patients’ expectations and the anticipated outcome must be carefully reviewed in all cases, especially when dealing with donor scar repairs.

Case 11

Case 11 (Fig. 12) was an insoluble donor site problem. This unfortunate 31-year-old man underwent 10 transplants and two scalp reductions over a 10-year period. There is no viable surgical treatment to improve his donor scars. The adage of avoiding the problem initially as the best way to manage a complication is exemplified by this case. The only solution for this patient was to hide the donor scars. His options included growing his hair to a sufficient length then bundling it in a ponytail or wearing a hairpiece. Use of finasteride is also essential.

Discussion

The appearance of an individual who has the obvious cornrow hairline from older grafting techniques is a phenomenon known to most surgeons and lay people. The appearance is so striking and unfavorably memorable that most people know someone or have met someone who fits this description. It is not at all uncommon to hear a patient lament that his entire lifestyle revolves around the concealment of plugs. Frequently, patients who have unsightly plugs awaken early to devote the necessary morning hours

Fig. 12. Case 11. The result following 10 donor harvest procedures and two scalp reductions. From the standpoint of correcting the appearance of the donor area, no meaningful corrective surgery is possible. Camouflage techniques with hairstyle, a hairpiece, finasteride, and topical scalp coloring are the principal options.
for hair grooming and cover-up. Often, individuals who have unnatural hair transplants plan social engagements in low-lit areas and avoid swimming or getting caught in the rain to avoid the obvious display of their hair plugs. In addition, these unfortunate patients who bear the burden of previous surgical misadventure are often devoted wearers of hats or hairpieces or resort to the perpetual use of scalp coloring creams or sprays. They often also carry the emotional burden of anger and distrust toward other hair transplant surgeons as a result of past experiences with hair restoration procedures.

Thus, patients are incredibly grateful and their self-esteem and confidence is tremendously boosted when a technique is performed that reliably and safely eliminates the cornrows transplants, recycles the removed grafts, and improves the hairline.

The techniques for correcting problem transplants continue to evolve. In the past 10 years the author and colleagues have performed approximately 500 corrective hair procedures on 200 patients. There have been no cases of scalp infection or postoperative hemorrhage in the donor or recipient area. In the patients receiving corrective transplants, the incidence of poor hair transplant growth, epidermal cysts, recipient scarring, and accelerated surrounding hair loss has been minimal, and no higher than in the author’s patients receiving first-time transplants.

The occipital donor sites in patients who have previously had punch harvesting of plugs that were left to heal by secondary intention are usually somewhat immobile and poorly vascularized, however. Some of the linear strip donor harvest scars used for corrective procedures have healed with greater scar widening than would have been expected in virgin occipital donor scalp, so the author and colleagues prefer to harvest longer, narrower donor strips when considerable donor scarring is present.

When the plug reduction technique was first performed, the wounds were left open for closure by secondary intention. The current modification of the technique is to close these wounds primarily. Closure of the plug sites has been a welcome improvement for patients who have experienced both techniques. On the other hand, closure of the wounds creates two modest disadvantages from a surgical standpoint. First, multiple closures of the plug excision sites creates slightly more scalp tension in the region and can result in popping of newly planted grafts. Second, as a result of the popping and added scalp tension, grafts cannot be packed as closely to the plug reduction sites as when they are left open. These slight grafting disadvantages are a small trade-off for the accelerated healing of a closed wound and higher patient acceptance of the procedure. In some instances when extensive plug reductions are performed and grafting is planned in the local area, some plug reduction sites are left open to avoid excess tension on the scalp and to promote maximal take of the grafts.

The procedure for excision of the linear strip of plugs at the hairline has numerous advantages. First, complete, direct excision of plugs translates into a focused attack on the unsightly hairline. Second, the excised strip of plugs represents a plentiful donor source for recycling of hair into grafts. Third, in cases in which the hairline is placed too low, linear excision of the plugs elevates the hairline. The advantage of the newly elevated hairline is a more balanced appearance and a larger space for grafting at the hairline to create a natural and irregular appearance. The efficiency of the direct linear excision of the hairline also expedites the entire corrective process. In most cases this technique will reduce at least one and sometimes a second procedure that would normally be expected following PR&R alone.

Patients are often apprehensive about the prospect of the resultant scar following direct linear excision of anterior hairline plugs. The author and colleagues’ experience has been excellent with this technique from the standpoint of low visibility of the scar. A meticulous approximation of the wound edges, no tension on the closure, and extensive grafting into and around the scar has resulted in exceedingly high patient satisfaction with this approach.

Another patient concern is the removal of previously transplanted hair, even if the grafts appear pluggy. Patients who have had transplants using older techniques often feel that they already have a shortage of hair and have paid a considerable price economically and physically going through a previous operation to obtain hair. Most patients accept the procedure of excision of plug grafts by any means when they are assured that the removed hair will be recycled and redistributed in other areas. Patients need to fully understand, however, that the recycling is not 100% efficient. The yield ranges from 50% to 85% following plug excision or linear excision and recycling into usable grafts. Finally, most patients accept the need for excision of plug grafts when they see photographs of hairlines that are incompletely corrected by grafting alone. The straight, pluggy hairline almost always requires an aggressive direct attack on the plugs.

Other problems with older transplant techniques occur, including low density of grafts, poor graft survival, elevation or cobblestoning of grafts, misdirection of implantation angle, depression or pitting of grafts, necrosis of the scalp, and visible scarring around grafts. The problems most frequently seen in a
clinical hair restoration practice and a practical approach to their correction are included in this article.

Plugs placed in the crown-vertex are also well managed with PR&R. The main difference in managing plugs in this region is the determination of whether they should be removed entirely or simply reduced and the surrounding area grafted. The deciding factor is based on patient preference, the degree of crown-vertex alopecia, and the amount of occipital donor supply. In cases in which plugs are to be removed and no additional grafting is planned, a punch size equal to or slightly larger than the plug should be used. When plugs are removed, the residual scar that remains in the crown alopecia can be imperceptible or can remain with variable degrees of prominence. Patients who request removal of plugs in the crown region need to be aware of the unpredictability of the plug excision scar. In most cases removal of the plugs with additional grafting is a more desirable option because the remaining plug excision scars are hidden well by the recycled grafts.

When crown-vertex plugs are to be reduced and recycled, the eccentric plug excision technique is similar to that applied to the anterior hairline. Usually the most posterior 1 cm of plugs in this region are reduced, sutured, and recycled. Recycled plug grafts and newly harvested grafts from the occipital donor area are transplanted in areas of alopecia between the existing plugs and closed reduction sites. A gentle taper zone of grafts containing one to three hairs per graft is created, extending posteriorly from the reduced line of plugs. This buffer of smaller grafts softens the transition between the bald nontransplanted posterior scalp and the transplants in the crown-vertex area.

The role of finasteride in patients undergoing corrective cannot be overemphasized. These patients already have a donor shortage in the face of ongoing hair loss. Their precious donor supply needs to be used primarily for the corrective process. In addition, some patients who have had donor harvest in high occipital areas are at risk for exposure of the donor scars with progressive hair loss. The administration of finasteride is currently the best option for addressing the problems of progressive hair loss.

Correcting previous hair transplantation results that are less than ideal because of the use of poorly performed or outdated techniques is exceedingly gratifying. Patients need to be aware that the process usually takes 2 years and several procedures to complete; however, successful or even partial correction of an unsightly hair restoration procedure is enormously rewarding for the patient. Restoration of the poor hair transplant result is restoration of one’s self-esteem and a life-enhancing procedure. The reader should look back at the clinical examples and notice the expression in the postoperative patients’ eyes to appreciate the truth of this statement.

References