

Frontal Hair Line - An important landmark for a successful hair transplant

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ABSTRACT

Aim: To determine the acceptable shape of frontal hair line in cases of male hair transplant.

Study Design: Prospective Descriptive study.

Place and duration: Department of Plastic Surgery, Bashir Hospital, Sialkot from January 2016 to April 2018.

Methods: Male patients with typical male baldness patterns were serially included in the study. Informed consent was taken both for the surgery and purpose of research. inclusion criteria ; male patients with age ranging from 25 to 35 years, male baldness pattern type I to type III according to classification. They were offered two common patterns for frontal hair line. Pattern 1. Wide Circular shaped; pattern 2. V shaped. However patients were also called for follow up after three months to see the late complications. Opinion of acceptance was sought from patients and one group was observed by the other group and opinion taken. Group I patients were seen by Group II patients and vice versa and remarks as acceptable and unacceptable by the patients while good and recommended, acceptable and unacceptable by the other group i.e. observers were made.

Results: Total 120 patients fulfilling the inclusion criteria of the study were included.

Conclusion: Patients for hair transplant in our society like pattern 2 for their frontal hair line as it gives more aesthetic results which look like normal grown up hairs.

Keywords: Frontal, hair line, circular, v shaped

INTRODUCTION

In the modern world hair loss has been a significant problem for both men and women. Hair transplantation has revolutionized the treatment for hair loss. This has been magical not only from the esthetic point of view but is highly effective technique in recontouring the hairline and has extremely promising results¹ In order to have best results which compliment the natural contour of hairline, creating a perfect hairline is very important and it depicts the successful hair transplantation.

Hair transplantation offers a decent and sophisticated remedy for those who suffer with this challenging problem in the modern world. Multiple factors are to kept in mind to make hair transplantation successful which include the proper workup, sufficient knowledge of the anatomy and microvascular surgical expertise². Additional elements required are adequate graft size, appropriate site creation, contour of the hair and packing density³.

Frontal hairline is a most significant feature in the appearance of both men and women. This not only affects the appearance but shatters the confidence of the patient. Apart from this majority of hair transplantation is done for cosmetic reasons⁴. Hair loss can be either because of androgenic or non-androgenic cause⁵. Age does not offers any hindrance in the procedure. But family history is very frequency of hair loss before considering hair transplation surgeries⁶.

important in evaluating the hairline. People with age groups between early 20s and early 0s should consider the

Hair transplantation and hairline correction surgery includes five important anatomical sites, which are frontal areas, frontotemporal recess areas, temporal and infra temple areas with the side burns⁷. Apart from these landmarks some doctors describe the landmarks of a proper hairline in a more elaborated and simple way. They divide the face into three segments equally with the middle line to be located at exactly 8cm from the glabella which curves along the shape of the forehead with corresponding side burns or curves⁸.

In order to give a natural appearance hair grafts are placed irregularly more often in a saw toothed pattern giving a natural look to the patient⁹. Approximately 200 to 300 micro grafts are required to establish a perfect hairline. The skill of a surgeon is often judged by the perfection of newly formed hairline¹⁰.

PATIENTS AND METHODS

Male patients with typical male baldness patterns were serially included in the study. Informed consent was taken both for the surgery and purpose of research.

inclusion criteria ; male patients with age ranging from 25 to 35 years, male baldness pattern type I to type III according to classification. They were offered two common patterns for frontal hair line.

Pattern 1. Wide Circular shaped; pattern 2. V shaped. However patients were also called for follow up after three months to see the late complications. Opinion of acceptance was sought from patients and one group was observed by the other group and opinion taken. Group I patients were seen by Group II patients and vice versa and remarks as acceptable and unacceptable by the patients while good and recommended, acceptable and unacceptable by the other group i.e. observers were made. The observer group either personally met the patients and

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a few gave opinion after seeing preop and postop photos. Patients not giving consent for the study were excluded from the data. Data was entered and analysis done by SPSS v 22.

RESULTS

Study parameters are shown in Table I & II.

Table I: General Data

Total no of patients in Study	120 (100%)
Age	28 - 59 years(Mean age 41± 7 years)
Group A- wide Circular shaped	22
Group II- V shaped.	98
Baldness type I	20 (16.67%)
Baldness type II	40 (33.34%)
Baldness type III	60 (49.99%)
Obesity	17
Diabetics	9
Hypertensive	11
Smokers	12
Asthmatics	4
Follow up	9 months

Table II- Acceptability

	Group I	Group II
Opinion of patients	Acceptable- 22 Unacceptable- 0	Acceptable- 98 Unacceptable- 0
Opinion of observers	Good and recommended- 37 Acceptable- 61 Unacceptable-0	Good and recommended- 20 Acceptable-2 Unacceptable-0

DISCUSSION

Our study for opinion of the patients showed that Group I- wide circular pattern was acceptable for 100% of patients & Group II-V shaped pattern was also acceptable for 100% patients, while this acceptance was 98% & 99% according to the study by Karimi et al¹¹.

When we saw opinion of observers in our data with, wide circular pattern, it was acceptable for 61 percent of the total observers while none disapproved it along with that 37 percent observers recommended the treatment, where as in Group II –V shaped pattern 2 percent of the total approved the success of the treatment and none of them disapproved the treatment with 20 percent of the total in Group II recommended the treatment , while data of Konior et al¹² showed that these patterns were acceptable for 72% & 15% observers respectively.

CONCLUSION

Patients for hair transplant in our society like pattern 2 for their frontal hair line as it gives more aesthetic results which look like normal grown up hairs.

Conflict of interests: Nil

REFERENCES

1. Bagheri H, Sirinturk S, Govsa F, Pinar Y, Ozer MA (2016) Computer-assisted analysis contour lines of esthetic unit for the assessment of lip augmentation. *Eur J Plast Surg* 39(4):265–272
2. Beehner M (2008) Hairline design in hair replacement surgery. *Facial Plast Surg* 24:389–403

3. Brodie AG (1953) Late growth changes in the human face. *Angle Orthod* 23:146–157
4. Ceballos C, Priego C, Meñdez C, Hoffner MV, Garcí'a-Hernañdez MJ, Camacho FM (2013) Study of frontal hairline patterns in Spanish Caucasian women. *Actas Dermosifiliogr* 104(4):311–315
5. Desai SC, Sand JP, Sharon JD, Branham G, Nussenbaum B (2015) Scalp reconstruction an algorithmic approach and systematic review *JAMA. Facial Plast Surg* 17(1):56–66
6. Farahvash MR, Khak J, Horestani MJ, Farahvash Y, Farahvash B (2010) Facial esthetic analysis in beautiful Persian female subjects aged 13 to 30 years by means of photogrammetry. *Plast Reconstr Surg* 125(6):245e–247e
7. Farkas LG, Katic MJ, Forrest CR, Alt KW, Bagic I, Baltadjiev G, Cunha E, Cvicelova' M, Davies S, Erasmus I, Gillett-Netting R, Hajnis K, Kemkes-Groententhaler A, Khomyakova I, Kumi A, Kgampe JS, Kayo-daigo N, Le T, Malinowski A, Negasheva M, Manolis S, Ogeturk M, Parvizrad R, Rosing F, Sahu P, Sforza C, Sivkov S, Sultanova N, Tomazo-Ravnik T, To'th G, Uzun A, Yahia E (2005) International anthropometric study of facial morphology in various ethnic groups/races. *J Craniofacial Surg* 16:615–646
8. Jimenez F (2011) Commentary: hair transplantation and female hairlines. *Dermatol Surg* 37:501–502
9. Jung JH, Rah DK, Yun IS (2011) Classification of the female hairline and refined hairline correction techniques for Asian women. *Dermatol Surg* 37(4):495–500
10. Kabaker SS, Champagne JP (2013) Hairline lowering. *Facial Plast Surg Clin North Am* 21(3):479–486
11. Karimi K, Devcic Z, Popenko N, Oyoyo U, Wong BJ (2015) Morphometric facial analysis: a methodology to create lateral facial images. *Oral Maxillofac Surg* 19(4):403–410. doi:10.1007/s10006-015-0512-7
12. Konior RJ (2013) Complications in hair-restoration surgery. *Facial Plast Surg Clin North Am* 21(3):505–520
13. Koo SH, Chung HS, Yoon ES, Park SH (2000) A new classification of male pattern baldness and a clinical study of the anterior hairline. *Esthetic Plast Surg* 24:46–51
14. Lam SM (2013) Complications in hair restoration. *Facial Plast Surg Clin North Am* 21(4):675–680
15. Lam SM (2013) Hair transplant and local anesthetics. *Clin Plast Surg* 40(4):615–625
16. Nusbaum BP, Fuentefria S (2009) Naturally occurring female hairline patterns. *Dermatol Surg* 35(6):907–913
17. Olsen EA (2001) Female pattern hair loss. *J Am Acad Dermatol* 45:S70–S80
18. Park I, Bang CY, Kang MJ, Jung JH, Byun JW, Shin J, Choi GS (2014) Female hairline preference among various segments of the Korean population. *Ann Dermatol* 26(5):647
19. Park JH, Moh JS (2012) Camouflaging the posterior zygomatic arch protrusion after zygoma reduction surgery. *Aesthet Surg J* 32(5):661–664
20. Park JH (2015) Novel principles and techniques to create a natural design in female hairline correction surgery. *Plast Reconstr Surg Glob Open* 3(12):e589
21. Park JH (2016) Masking the close eye appearance in the East Asian female population: infratemporal hairline reduction with hair grafting. *Aesthet Plast Surg*. doi:10.1007/s00266-016-0695-9
22. Peret DI, Lee KJ, Penton-Voak I, Rowland D, Yoshikawa S, Burt DM, Henzi SP, Castles DL, Akamatsu S (1998) Effects of sexual dimorphism on facial attractiveness. *Nature* 394:884.
23. Sepehr A, Mathew PJ, Pepper JP, Karimi K, Devcic Z, Karam AM (2012) The Persian woman's face: a photogrammetric analysis. *Aesthet Plast Surg* 36(3):687–691
24. Shapiro R, Shapiro P (2013) Hairline design and frontal hairline restoration. *Facial Plast Surg Clin North Am* 21(3):351–362
25. Unger RH (2013) Female hair restoration. *Facial Plast Surg Clin North Am* 21(3):407–417.