

Original Article

Analysis of Cases of Hair Loss in Females- A Clinical Study

Mukesh Kumar Bansal

Assistant Professor, Department of Dermatology, Career Institute of Medical Sciences and Hospital, Lucknow, Uttar Pradesh, India

ABSTRACT:

Introduction: Hair loss is the common phenomenon. The present study was conducted to assess the pattern of hair loss in study population. **Materials & Methods:** The present study was conducted on 546 cases of hair loss in females. The pattern of hair loss was then graded as per the 5 point Sinclair scale, Olsen scale and Hamilton-Norwood scale. **Results:** Age group 18- 30 years had 280 patients, 30-50 years had 210 patients and >50 years had 56 patients. The difference was significant (P- 0.01). 55% of cases family history was positive while in 45% of cases it was negative. The difference was non- significant (P> 0.05). The most of the patients were seen in age group 18-30 years followed by 30-50 years and >50 years. The most common type was sinclair type III (129) followed by sinclair II (100), IV (100), Osler (99), Hamilton Norwood (80) and sinclair V (35). The difference was significant (P< 0.05). **Conclusion:** The pattern of hair loss is mostly sinclair type III. Age group 18- 30 years shows maximum cases.

Key words: Hair, Osler, Sinclair

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Corresponding author: Dr Mukesh Kumar Bansal, Assistant Professor, Department of Dermatology, Career Institute of Medical Sciences and Hospital, Lucknow, Uttar Pradesh, India

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INTRODUCTION

Alopecia is loss of hair from part of the head or body. It is also known as baldness. There can be hair loss from one specific body part or in the entire body. Typically inflammation or scarring is not present. Hair loss in some people causes psychological distress.¹

There can be male-pattern hair loss (MPHL), female-pattern hair loss (FPHL) or alopecia areata. Telogen effluvium is thinning of hair and is common condition observed in most of the cases. Diffuse alopecia is commonly observed in females. FPHL is a non-scarring diffuse alopecia, characterized by a reduction in hair density over the crown and frontal scalp with retention of the frontal hairline.² It has been observed that combination of genetics and male hormones are the leading cause of MPHL. It is mostly seen in cases of iron deficiency anemia, hypothyroidism which is a common condition in females, in patients undergoing

chemotherapy etc. These are the examples of hair loss without inflammation or scarring whereas SLE, various fungal infections, sarcoidosis are examples of hair loss associated with inflammation or scarring.³

It is commonly seen in females above 18 years of age. 15% of cases are occurring 20-30 years of age. There are basically three common types, diffuse thinning of the crown, Oslen's "Christmas tree pattern" with frontal midline breach and widening of the central part of the scalp without diffuse hair loss and thinning associated with bi temporal recession (Hamilton type).⁴ The present study was conducted to assess the pattern of hair loss in study population.

MATERIALS & METHODS

The present study was conducted in the department of Dermatology. It included 546 cases of hair loss in females. All were informed regarding the study and

written consent was obtained. Ethical clearance was taken before starting the study.

General information such as name, age, etc. was noted. Family history, personal history, any history of drug, pattern of hair loss was recorded. The pattern of hair loss was then graded as per the 5 point Sinclair scale, Olsen scale and Hamilton-Norwood scale. Results thus obtained were subjected to statistical analysis using chi- square test. P value less than 0.05 was considered significant.

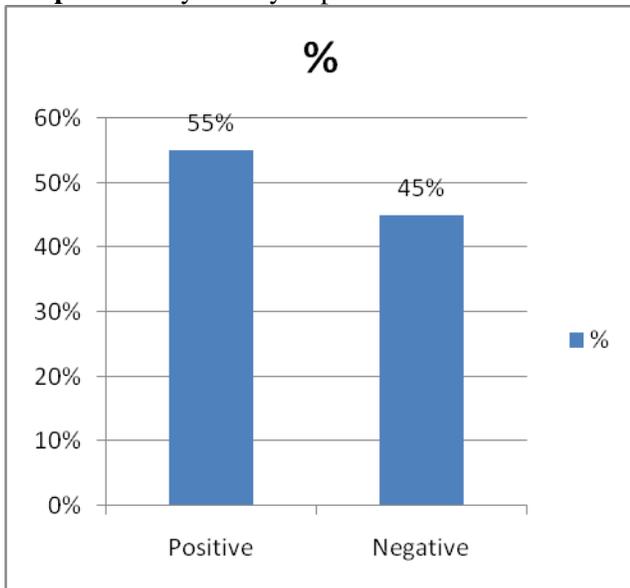
RESULTS

Table I Age wise distribution of patients

Age group	Number	P value
18-30 years	280	0.01
30- 50 years	210	
>50 years	56	
Total	546	

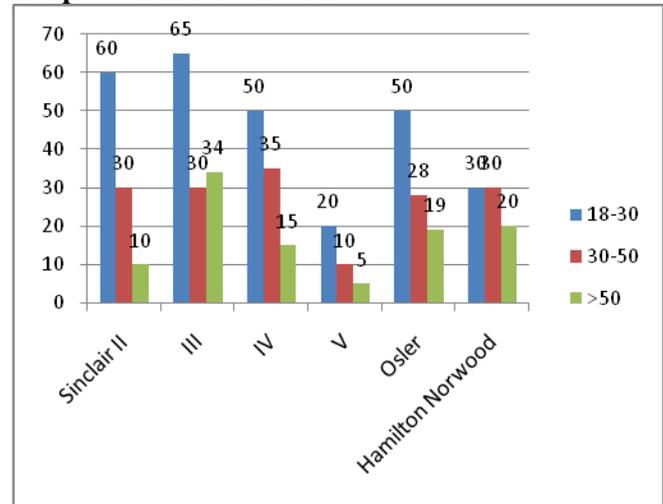
Table I shows that age group 18- 30 years had 280 patients, 30-50 years had 210 patients and >50 years had 56 patients. The difference was significant (P-0.01).

Graph I Family history in patients



Graph I shows that in 55% of cases family history was positive while in 45% of cases it was negative. The difference was non- significant (P> 0.05).

Graph II Grade of hair loss



Graph II shows that most of the patients were seen in age group 18-30 years followed by 30-50 years and >50 years. The most common type was sinclair type III (129) followed by sinclair II (100), IV (100), Osler (99), Hamilton Norwood (80) and sinclair V (35). The difference was significant (P< 0.05).

DISCUSSION

Hair loss is common phenomenon among adult. It is further commonly seen in females as compared to males. Symptoms of hair loss include hair loss in patches usually in circular patterns, dandruff, skin lesions, and scarring. Alopecia areata usually shows in unusual hair loss areas e.g. eyebrows, backside of the head or above the ears where usually the male pattern baldness does not affect. In male-pattern hair loss, loss and thinning begin at the temples and the crown and either thins out or falls out. Female-pattern hair loss occurs at the frontal and parietal.⁵

In our study, age group 18- 30 years had 280 patients, 30-50 years had 210 patients and >50 years had 56 patients. This is similar to Ellis et al.⁶

A study conducted by Shilpashree et al⁷ on epidemiological study of female pattern hair loss at a referral centre in South India found that FPHL accounted for 15.3% of diffuse hair loss in women. The age specific frequency of the hair loss severity showed an increase in the severity of FPHL with advancing age (Sinclair grade V was 5.8% in third decade to 74.5% in fifth decade). In our study, family history was observed in 55% of cases while in 45% it was negative. Mean age and mean age of onset of FPHL among the 100 women was 31.26±9.85 years

and 28.03±8.05 years respectively. A positive family history was noted in 51% of patients, with no difference in the age of onset of FPHL in patients with family history positive or negative. The most common pattern of hair loss was diffuse hair loss over the vertex (72%), followed by Oslen pattern (16%) and Hamilton pattern (12%).

We found that most of the patients were seen in age group 18-30 years followed by 30-50 years and >50 years. The most common type was sinclair type III (129) followed by sinclair II (100), IV (100), Osler (99), Hamilton Norwood (80) and sinclair V (35). This is in accordance to Su LH et al. In recent study by Lin Shui⁸ on factors associated with female pattern hair loss and its prevalence in Taiwanese women: A community-based survey found the prevalence of FPHL for all ages was 11.8%, increasing with advancing age. After controlling for age and family history, statistically significant associations were noted between FPHL and high fasting glucose.

In study by Paik J H⁹ found that the prevalence and types of AGA were analysed in 10,132 Koreans was 14.1%. It increased steadily with advancing age, but was lower than that of caucasians: 2.3% in the 3rd decade, 4.0% in the 4th decade, 10.8% in the 5th decade, 24.5% in the 6th decade, 34.3% in the 7th decade and 46.9% over 70 years. The prevalence of AGA in Korean men and women was lower than that in caucasians, as recorded in the literature. Korean men tend to have more frontal hairline preservation and show a more 'female pattern' of hair thinning than caucasians. Therefore, 'female pattern' should be added to the classification of AGA.

CONCLUSION

Hair loss is the common phenomenon. It is commonly seen in age group 18-30 years. The most common type reported was sinclair type III.

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