Journal of Advanced Medical and Dental Sciences Research

@Society of Scientific Research and Studies NLM ID: 101716117

Journal home page: www.jamdsr.com doi: 10.21276/jamdsr Index Copernicus value = 85.10

(e) ISSN Online: 2321-9599;

(p) ISSN Print: 2348-6805

Original Research

Hair loss in among adult subjects- A clinical study

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ABSTRACT:

Background: Alopecia, a common condition recognized as hair loss, can affect men and women of all ages. It occurs when hair follicles diminish over time, leading to shorter and finer hair strands. The present study was conducted to assess patterns of hair loss using trichoscope. **Materials & Methods:** 90 patients with hair loss of both genders. All gave their written consent to participate in the study. Data such as name, age, gender etc. was recorded. A thorough examination was performed. All subjects were tested with trichomoscopy and the hair pull test. The nature of the symptoms and lesions was noted. **Results:** Age group 21-30 years had 22, 31-40 years had 28, 41-50 years had 15 and 51-60 years had 25 patients. The difference was non- significant (P> 0.05). The most common symptom was itching in 65, itchy lesion in 26, hair fall in 17, thinning of hair in 12, white hair in 29, patchy hair loss in 7 cases. The diagnosis was canites in 10, hair cast in 15, lichen plano pilaris in 6, ophiasis in 4, scalp psoriasis in 5, seborrhic dermatitis in 6, telogen effluvium in 6, tinea capitis in 2, traction alopecia areata in 3, trichotillomania in 2, FPHL in 1, alopecia areata in 15, and discoid lupus erythematosus in 5 cases. The difference was significant (P< 0.05). **Conclusion:** The condition most frequently diagnosed was Alopecia Areata, with canites, Seborrhic Dermatitis, and telogen effluvium following in that order. Hair loss and thinning were common concerns. **Keywords:** Alopecia, Seborrhic Dermatitis, telogen effluvium

Received: 11 April, 2020

Accepted: 16 May, 2020

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This article may be cited as: Kapadia JC, Nichat PV. Hair loss in among adult subjects- A clinical study. J Adv Med Dent Scie Res 2020;8(6):216-219.

INTRODUCTION

Alopecia, a common condition recognized as hair loss, can affect men and women of all ages. It occurs when hair follicles diminish over time, leading to shorter and finer hair strands. Hair loss may be temporary or permanent, with various types and causes.¹ The most common type is androgenetic alopecia, known as male-pattern baldness or femalepattern baldness. This type usually follows a predictable pattern of hair loss and thinning, influenced by hormonal and genetic factors.

When the hair development cycle is disrupted, more hairs than usual reach the resting (telogen) phase, a condition known as telogen effluvium.² Numerous things, including stress, disease, surgery, delivery, abrupt weight loss, or specific drugs, might cause it.³ When the immune system unintentionally targets hair follicles, alopecia areata, an autoimmune disorder,

causes abrupt hair loss in patches on the scalp or other parts of the body.⁴

Tight hairstyles such as braids, ponytails, or extensions often lead to excessive pulling or stress on the hair, which causes traction alopecia. in scarring alopecia, hair follicles undergo irreversible destruction resulting in scar tissue replacement, leading to irreversible hair loss. Burns, injuries, and particular skin ailments are instances of causative factors.⁵ Anagen effluvium is a type of hair loss that happens during the hair's active growth phase (anagen) and is usually caused by chemotherapy or radiation therapy. It leads to quick hair loss.^{6,7} The present study was conducted to assess patterns of hair loss using trichoscope.

MATERIALS & METHODS

The present study comprised of 90 patients with hair loss of both genders. All gave their written consent to participate in the study. Data such as name, age, gender etc. was recorded. A thorough examination was performed. All subjects were tested with trichomoscopy and the hair pull test. The nature of the symptoms and lesions was noted.P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Age group (Years)	Number	P value
21-30	22	
31-40	28	0.91
41-50	15	0.81
51-60	25	

Table I shows that age group 21-30 years had 22, 31-40 years had 28, 41-50 years had 15 and 51-60 years had 25 patients. The difference was non- significant (P > 0.05).

Table II Assessment of parameters

Parameters	Variables	Number	P value
Symptoms	Itching	65	
	Itchy lesion	26	
	Hair fall	17	0.05
	Thinning of hair	12	0.05
	White hair	29	
	Patchy hair loss	7	
Diagnosis	canites	10	
	Hair cast	15	
	Lichen plano pilaris	6	
	Ophiasis	4	
	Scalp Psoriasis	5	
	Seborrhic Dermatitis	6	
	Telogen effluvium	6	
	Tinea Capitis	2	
	Traction Alopecia Areata	3	
	Trichotillomania	2	
	FPHL	1	
	Alopecia Areata	15	
	Discoid lupus erythematosus	5	

Table II, graph I shows that the most common symptom was itching in 65, itchy lesion in 26, hair fall in 17, thinning of hair in 12, white hair in 29, patchy hair loss in 7 cases. The diagnosis was canites in 10, hair cast in 15, lichen plano pilaris in 6, ophiasis in 4, scalp psoriasisin 5, seborrhic dermatitis in 6, telogen effluvium in 6, tinea capitis in 2, traction alopecia areata in 3, trichotillomania in 2, FPHL in 1, alopecia areata in 15, and discoid lupus erythematosus in 5 cases. The difference was significant (P < 0.05).

Graph I Assessment of parameters



Table III Hair pull test

Hair pull test	Number	P value
Positive	62	0.05
Negative	28	

Table III shows that hair pull test was positive in 62 cases and negative in 28 cases. The difference was significant (P < 0.05).

DISCUSSION

Though it impacts women more than men, hair loss is a concern for everyone, irrespective of age or gender. As per the normal hair cycle, every three to five years, each scalp hair is replaced. For numerous women, hair is a key aspect of their identities.7 Unlike men, women's hair is symbolically associated with femininity, sexuality, attractiveness, and personality. Due to hair loss, women are more prone than men to experience a diminished quality of life and reduced social engagement. FPHL is histologically characterized by the gradual conversion of terminal hair follicles into vellus-like follicles.8Furthermore, FPHL patients have fewer follicles in the anagen phase of the hair cycle and more in the telogen phase.9,10,11 Chronic hair loss is common in female patients, but objective technology to assist the dermatologist in accurately diagnosing the condition and monitoring the efficacy of treatment is limited or nonexistent.¹² Specifically, it may be difficult to differentiate female androgenic alopecia (FAGA), a kind of female pattern hair loss, from other disorders. Trichoscopy (scalp dermoscopy), a new hotspot in trichology, has given diagnostic features to alopecia areata, trichotillomania, and tinea capitis, among other hair issues. Trichoscopy for hair loss diagnosis is necessary to diagnose effluvium and other conditions.13The present study was conducted to assess patterns of hair loss using trichoscope.

We found that age group 21-30 years had 22, 31-40 years had 28, 41-50 years had 15 and 51-60 years had

25 patients. Ravikiran et al¹¹ extrapolated the clinical characteristics and demographic variables of FPHL in 100 women to identify potential risk factors associated with FPHL. FPHL was responsible for 15.3% of diffuse hair loss in women. The average age of the 100 women was 31.26±9.85 years, while the average age at which they began experiencing FPHL was 28.03±8.05 years. The onset age of FPHL was the same for those with a positive family history and those without; furthermore, 51% of patients reported having a positive family history. Diffuse hair loss over the vertex was the most common pattern (72%), followed by the Oslen pattern (16%) and the Hamilton pattern (12%). As per the frequency specific to age groups, the severity of hair loss intensified. The severity of FPHL increased with age, according to the age-specific frequency of hair loss severity (Sinclair grade V was 5.8% in the third decade to 74.5% in the fifth decade). In 23%, 15%, and 65% of individuals, respectively, polycystic ovarian syndrome, hypothyroidism, and a BMI greater than 25 (overweight and obesity) were identified.

We found that the most common symptom was itching in 65, itchy lesion in 26, hair fall in 17, thinning of hair in 12, white hair in 29, patchy hair loss in 7 cases. The diagnosis was canites in 10, hair cast in 15, lichen plano pilaris in 6, ophiasis in 4, scalp psoriasis in 5, seborrhic dermatitis in 6, telogen effluvium in 6, tinea capitis in 2, traction alopecia areata in 3, trichotillomania in 2, FPHL in 1, alopecia areata in 15, and discoid lupus erythematosus in 5 cases. We found that hair pull test was positive in 62 cases and negative in 28 cases. Su et al¹² evaluated parameters related to FPHL and determined its prevalence among women. A total of 26,226 individuals aged 30 assessed the degree of hair loss. Data on possible risk factors for FPHL were collected through a questionnaire interview. The prevalence of FPHL (Ludwig grade >I) across all age groups was 11.8%, with an increase correlated to aging. Even after controlling for age and family history, statistically significant correlations were identified between FPHL and elevated fasting glucose levels, reduced birth frequency, breastfeeding practices, oral contraceptive use, and UV exposure exceeding 16 hours weekly.

The shortcoming of the study is small sample size.

CONCLUSION

Authors found that the the condition most frequently diagnosed was Alopecia Areata, with canites, Seborrhic Dermatitis, and telogen effluvium following in that order. Hair loss and thinning were common concerns.

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