

ORIGINAL RESEARCH**Determination of hair loss in adults**

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Received: 23 June, 2021

Accepted: 26 July, 2021

ABSTRACT

Background: Men and women of all ages may have alopecia, the common disorder known as hair loss. It happens when hair follicles gradually decrease, resulting in shorter and thinner hair strands. The present study was conducted to assess patterns of hair loss using trichoscope. **Materials & Methods:** 140 patients with hair loss of both genders underwent the hair pull test and trichoscopy. The type of symptoms and lesions were observed. **Results:** Age group 21-30 years had 21, 31-40 years had 24, 41-50 years had 43 and 51-60 years had 52 patients. The difference was non-significant ($P > 0.05$). The most common symptom was hair fall in 56, thinning of hair in 24, white hair in 5, patchy hair loss in 10, itching in 20 and itchy lesion in 5 cases. The diagnosis was canities in 22, hair cast in 6, lichen plano pilaris in 7, ophiasis in 4, scalp psoriasis in 11, seborrheic dermatitis in 17, telogen effluvium in 13, tinea capitis in 2, traction alopecia areata in 8, trichotillomania in 2, FPHL in 13, alopecia areata in 26, and discoid lupus erythematosus in 9 cases. The difference was significant ($P < 0.05$). Hair pull test was positive in 92 cases and negative in 48 cases. The difference was significant ($P < 0.05$). **Conclusion:** The most common diagnosis was Alopecia Areata followed by canities, Scalp psoriasis, FPHL and Telogen effluvium. Common symptoms were hair fall and thinning of hair.

Key words: Alopecia, Hair loss, psoriasis, Trichoscope

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INTRODUCTION

Men and women of all ages may have alopecia, the common disorder known as hair loss. It happens when hair follicles gradually decrease, resulting in shorter and thinner hair strands. Hair loss can be either temporary or permanent, and there are a number of different types and causes.¹ The most prevalent kind of hair loss is androgenetic alopecia, sometimes referred to as male-pattern baldness or female-pattern baldness. It typically follows a regular pattern of hair loss and thinning and is impacted by both hormonal and hereditary factors.²

When the hair development cycle is disrupted, more hairs than usual reach the resting (telogen) phase, a condition known as telogen effluvium. 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 Excessive tugging or stress on the hair, frequently brought on by tight hairstyles like

braids, ponytails, or extensions, is the cause of traction alopecia. Irreversible hair loss results from the irreversible destruction to hair follicles in scarring alopecia, which is replaced by scar tissue.⁵ Burns, traumas, and specific skin disorders are examples of causes. Anagen effluvium, a form of hair loss that occurs when the hair is in its active growth phase (anagen), is typically brought on by chemotherapy or radiation therapy. It causes rapid hair shedding.^{6,7} The present study was conducted to assess patterns of hair loss using trichoscope.

MATERIALS & METHODS

The present study comprised of 140 patients with hair loss of both genders. Once they consented to take part in the study, everyone was recruited.

Data such as name, age, gender etc. was recorded. A thorough analysis was carried out. Each subject underwent the hair pull test and trichoscopy. The type of symptoms and lesions were observed. P value less than 0.05 was considered significant.

RESULTS**Table I Distribution of patients**

Age group (Years)	Number	P value
21-30	21	0.61
31-40	24	

41-50	43
51-60	52

Table I shows that age group 21-30 years had 21, 31-40 years had 24, 41-50 years had 43 and 51-60 years had 52 patients. The difference was non- significant (P> 0.05).

Table II Assessment of parameters

Parameters	Variables	Number	P value
Symptoms	Itching	75	0.05
	Itchy lesion	20	
	Hair fall	8	
	Thinning of hair	14	
	White hair	28	
	Patchy hair loss	7	
Diagnosis	canites	22	
	Hair cast	6	
	Lichen plano pilaris	7	
	Ophiasis	4	
	Scalp Psoriasis	11	
	Seborrhic Dermatitis	17	
	Telogen effluvium	13	
	Tinea Capitis	2	
	Traction Alopecia Areata	8	
	Trichotillomania	2	
	FPHL	13	
	Alopecia Areata	26	
	Discoid lupus erythematosus	9	

Table II, graph I shows that the most common symptom was hair fall in 56, thinning of hair in 24, white hair in 5, patchy hair loss in 10, itching in 20 and itchy lesion in 5 cases. The diagnosis was canites in 22, hair cast in 6, lichen plano pilaris in 7, ophiasis in 4, scalp psoriasis in 11, seborrhic dermatitis in 17, telogen effluvium in 13, tinea capitis in 2, traction alopecia areata in 8, trichotillomania in 2, FPHL in 13, alopecia areata in 26, and discoid lupus erythematosus in 9 cases. The difference was significant (P< 0.05).

Graph I Assessment of parameters

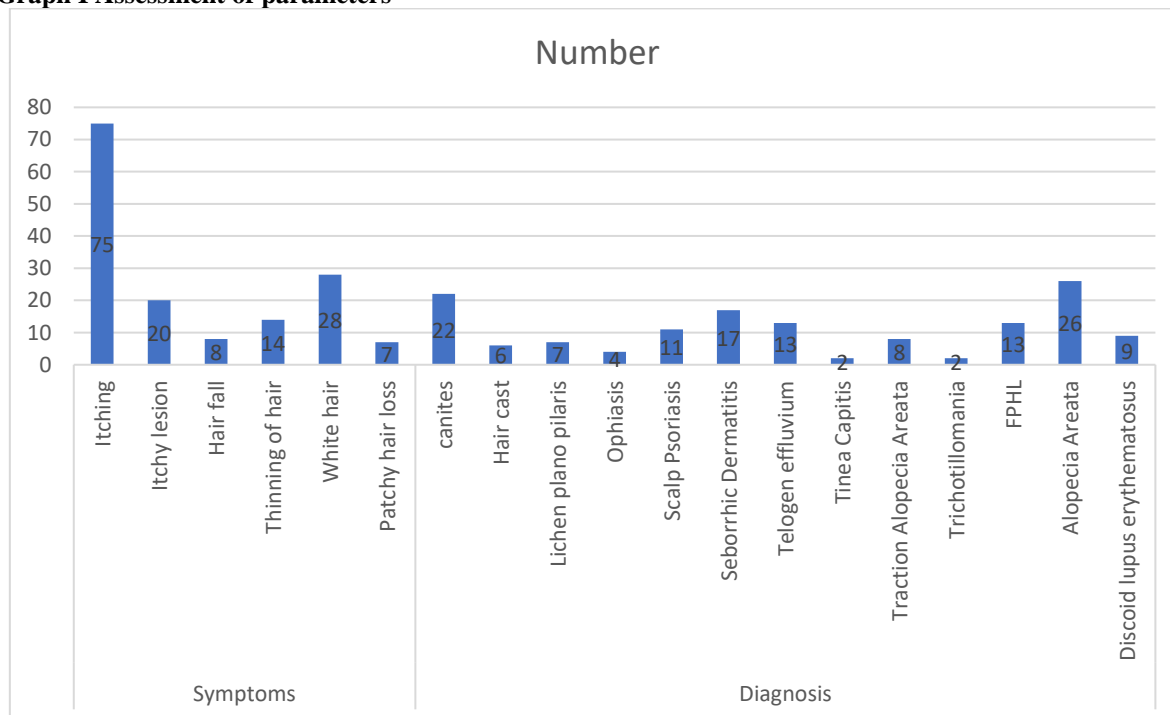


Table III Hair pull test

Hair pull test	Number	P value
Positive	92	0.05
Negative	48	

Table III shows that hair pull test was positive in 92 cases and negative in 48 cases. The difference was significant ($P < 0.05$).

DISCUSSION

Although it affects women more than men, hair loss is an issue for everyone, regardless of age or gender. According to the regular hair cycle, each hair on the scalp is replaced every three to five years. Hair plays a significant role in the identities of many women.^{8,9} In contrast to men, women's hair is symbolically linked to femininity, sexuality, attractiveness, and personality. Because of hair loss, women are more likely than males to have a lower quality of life and engage in less social activities. The histological hallmark of FPHL is the gradual transformation of the terminal hair follicles from hair follicles to vellus-like follicles.^{10,11} Furthermore, FPHL patients have fewer follicles in the anagen phase of the hair cycle and more in the telogen phase. 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.¹³ The present study was conducted to assess patterns of hair loss using trichoscope.

We found that age group 21-30 years had 21, 31-40 years had 24, 41-50 years had 43 and 51-60 years had 52 patients. Su et al¹⁴ assessed FPHL-related parameters and calculated the prevalence of FPHL in women. A total of 26,226 30-year-old individuals evaluated the extent of hair loss. A questionnaire interview was used to gather data on potential risk factors for FPHL. For all ages, the prevalence of FPHL (Ludwig grade >I) was 11.8%, and it rose as people aged. Statistically significant correlations were found between FPHL and high fasting glucose, fewer births, breastfeeding, oral contraceptive usage, and UV exposure above 16 hours per week, even after adjusting for age and family history.

We observed that the most common symptom was hair fall in 56, thinning of hair in 24, white hair in 5, patchy hair loss in 10, itching in 20 and itchy lesion in 5 cases. The diagnosis was canities in 22, hair cast in 6, lichen planus pilaris in 7, ophiasis in 4, scalp psoriasis in 11, seborrheic dermatitis in 17, telogen effluvium in 13, tinea capitis in 2, traction alopecia areata in 8, trichotillomania in 2, FPHL in 13, alopecia areata in 26, and discoid lupus erythematosus in 9 cases. In order to determine the potential risk

factors linked to FPHL, Ravikiran et al.¹⁵ extrapolated the clinical characteristics and demographic variables of FPHL in 100 women. 15.3% of women's diffuse hair loss was caused by FPHL. Among the 100 women, the mean age and the age at which FPHL began were 31.26 ± 9.85 and 28.03 ± 8.05 years, respectively. There was no difference in the age at which FPHL began in individuals with a positive or negative family history, and 51% of patients had a positive family history. Diffuse hair loss over the vertex was the most prevalent pattern (72%), followed by the Oslen pattern (16%) and the Hamilton pattern (12%). There was an increase in the severity of hair loss according to the age-specific frequency. 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.

CONCLUSION

Authors found that the Alopecia Areata was the most often diagnosed condition, followed by canities, Seborrheic Dermatitis and telogen effluvium. Common concerns were hair loss and thinning.

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