

## Patterns of hair loss at Sohag University Hospital hair clinic

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### Abstract

**Background:** Hair loss is a very common complaint. Patients may describe increased shedding and diffuse or localized alopecia. The differential diagnosis of hair loss includes a number of disorders causing cicatricial or noncicatricial alopecias.

**Objectives:** this study aimed to determine the most common causes of hair loss among patients who attended hair clinic at Sohag university hospital.

**patients and method:** This study included 100 patients who attended the hair clinic, dermatology department at Sohag University Hospital between June 2018 to October 2018. The data entry were done by using Microsoft Excel, while the analysis was done by using SPSS version 23.

**Results:** In this study we found that androgenetic alopecia was the most common cause of hair loss in our studied population(45%) followed by in descending manar alopecia areata (26%) , telogen effluvium (14), tractional alopecia (7%), lichen planopilaris (5%) and trichotillomania (3%).

**Conclusion:** Androgenetic alopecia is the most common cause of hair loss among patients who attended hair clinic at Sohag university hospital.

### Introduction

Alopecia (Hair loss) is a very common problem. Alopecia, which is associated with progressive thinning of the scalp hair, follows a defined pattern. Genetic involvement is pronounced but still poorly understood (1) Alopecia can be classified in two category i.e. scarring (cicatricial) alopecia and non-scarring (non-cicatricial) alopecia. In cicatricial alopecia, hair loss accompanied with scars that destroy the hair follicle, which resulted into permanent hair loss. In case of non-cicatricial alopecia, permanent hair loss is not usually observed (2). Hair loss diseases, represented by alopecia areata (AA) or androgenetic alopecia (AGA), are relatively common dermatological problems encountered in daily practice (3). Here, we try to identify the most common causes of hair loss in our community.

**Aim of the work:** This study aimed to determine the most common causes of

hair loss among patients who attended hair clinic at Sohag University Hospital.

#### Patients and methods:

A total of 100 patients suffering from hair loss attending the hair clinic, Department of Dermatology, Venereology and Andrology, Sohag Faculty of Medicine, Sohag University Hospital during the period from June 2018 to December 2018 were included in the study. Demographic information included age, sex, marital status, special habits and family history of hair loss. Presence of hair loss and duration, , past and present medical history, symptoms associated with the hair care practices and hair loss. Examination of the scalp was carried out and documentation of pattern of hair was recorded. Dermatoscope was used to visualize scalp in those with hair loss.

**Statistical analyses:** data were recorded in an excel data sheet and statistical

analysis was performed using the statistical package for the social science (SPSS 11.5 for windows). Qualitative variables were presented as frequencies

and percentages. Quantitative variables were presented as mean  $\pm$  standard deviation (SD).

## Results

Out of the 100 patients with hair loss included in this study, (72 %) were females and the remaining (28%) were males. The mean ( $\pm$ SD) of age of the study population was 27.92  $\pm$  10.52 years.

The distribution of the studied patients according to sociodemographic data is shown in table (1). The distribution of the studied patients according to disease related criteria is shown in table (2). Distribution of the studied patients according to diagnosis is shown in table (3).

Characteristics	Summary statistics
<b>Gender</b>	
Female	72 (72%)
Male	28 (28 %)
<b>Age at presentation</b>	
Mean $\pm$ S.D.	27.92 $\pm$ 10.52
Median (Range)	25.5 (7 – 60)
<b>Marital status</b>	
Divorced	1 (1%)
Married	54 (54 %)
Single	43 (43%)
Widow	2 (2 %)
<b>Special habits</b>	
No	91 (91%)
Smoker	9 (9%)
<b>Family history</b>	
No	53 (53%)
Yes	47 (47%)

**Table (1): Distribution of the studied patients according to sociodemographic criteria (No.=100):**

Characteristics	Summary statistics
<b>Onset</b>	
Acute	33 (33%)
Gradual	59 (59 %)
Insidious	8 (8%)
<b>Course</b>	
Progressive	86 (86%)
Stationary	14 (14%)
<b>General examination</b>	
Free	80 (80%)
Nail affection	4 (4%)
Pallor	12 (12%)
Pallor, nail affection	2 (2%)
Thyroid disease	2 (2%)
<b>Pattern of hair loss</b>	
Androgenetic	45 (45%)
Diffuse	14 (14%)
Localized	41 (41%)

<b>Site of hair loss</b>	
Back	8 (8%)
Diffuse	12 (12%)
Front	34 (34%)
Front, vertex	21 (21%)
Temple	5 (5%)
Vertex	20 (20%)
<b>Scalp examination</b>	
Erythema	2 (2%)
Free	88 (88%)
Scales	10 (10%)
<b>Pull test</b>	
Negative	74 (74 %)
Positive	26 (26 %)
<b>Duration of disease (years)</b>	
Mean± S.D.	3.32 ± 3.64
Median (Range)	2 (0.5 – 17)

**Table (2): Distribution of the studied patients according to disease related criteria (No.=100).**

Diagnosis	Percent
Androgenetic alopecia	45 (45%)
Alopecia areata	26 (26%)
Telogen effluvium	14 (14%)
Tractional alopecia	7 (7%)
Lichen planopilaris	5 (5%)
Tricotillomania	3 (3%)

**Table (3): Distribution of the studied patients according to diagnosis (No.=100).**

## Discussion

Hair loss is a very common complaint. Patients may describe increased shedding and diffuse or localized alopecia. The differential diagnosis of hair loss includes a number of disorders causing cicatricial or noncicatricial alopecias.(4) This observational study try to demonstrate the most common causes of hair loss in our community. In this study we found that androgenetic alopecia was the most common cause of hair loss in our studied population(45%) followed by in descending manar alopecia areata (26%) , telogen effluvium (14), tractional alopecia (7%), lichen planopilaris (5%) and trichotillomania (3%). In concour

with our results **Ellis and his colleagues** demonstrate that androgenetic alopecia is a common form of hair loss affecting up to 50% of white men (male-pattern baldness, MPHL) by age 50 and nearly 50% of women (female-pattern hair loss, FPHL) over the course of their lifetime (5).

Studies on hair-loss pattern and the prevalence of AGA were conducted by many researchers in different regions(6). Researches have shown that; there were significant proportional differences in both hair-loss pattern and the prevalence of AGA study conducted in China reported different ratios in various cities(7). A study on Caucasians found AGA prevalence to be 30%, 40% and

50% in 30s, 40s, 50s years of age respectively (8,9).

**Villasante Fricke A and MitevaM** explored that alopecia areata is the most prevalent autoimmune disorder and the second most prevalent hair loss disorder after androgenetic alopecia (10). Not in concour with our results Sani et al (2016) who studied causes of hair loss in African women found that Traction alopecia was the most common pattern of hair loss supporting claims of hair care practices as important etiological factors (11).

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