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Factors that Influence the Psychosocial Status of Patients with Female Pattern Hair Loss

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ABSTRACT

Besides genetic and hormonal influences, environmental factors play an important role in female pattern hair loss (FPHL). Literature reports deep psychological effects on patients'quality of life.
Our objective was to assess the psychosocial consequences of the disease and see if there is a relationship between different factors (demographic items, illness-specific data or risk factors of the disease) and the psychosocial status of the FPHL patients.
28 patients with Female pattern hair loss fulfilled the inclusion criteria, signed the informed consent and received the special hair loss questionnaire to complete.
The psychosocial status is affected by decreased self-confidence and increased rate of depression.
The results of our assessment suggest that the factors that influence the psychosocial status of FPHL patients are: positive personal history of hair loss problem, increased age of the patient, long duration from onset of FPHL, increased hair loss or regression line of FPHL.

Keywords : Psychosocial status, factors, female pattern hair loss, androgenetic alopecia

I. INTRODUCTION:

Androgenetic alopecia represents a type of non-cicatricial hair loss that occurs due to an underlying susceptibility of hair follicles to androgenic miniaturization [1]. This form of alopecia is characterized by hair thinning predominantly on the frontal and top region of the head, but not the back and sides of the scalp [2]. The disease results from genetic and hormonal factors.

Androgenetic alopecia in women is called female pattern hair loss (FPHL). Affecting approximately one-third of all susceptible women, it is most commonly seen after menopause, but it may begin as early as puberty. Hormonal changes are a common cause of FPHL as the disease can occur after pregnancy or following discontinuation of birth control pills [3]. Genetically, this type of hair loss can come from either parent's side of the family [4, 5].

Besides genetic and hormonal influences, environmental factors play an important role. Unfortunately many etiologies remain unknown for Androgentic alopecia and Female pattern hair loss. Considering how seriously lifestyle factors influence hormonal levels, we presume that lifestyle and behavioral patterns contribute significantly to the occurrence and severity of AGA, in both males and females.

Literature reports highlight the negative, deep psychological effects of Androgenetic alopecia on patients' QoL (quality of life). [6] Several comparisons have been made between balding men and females with normal control subjects. It was scientifically proved that women are more worried about their look than men and are more affected by the hair loss process [7]. In 1992, Cash found out that female patients with Female pattern hair loss are less able to adapt to the progression of alopecia [8].

OBJECTIVE:

The purpose of the study was twofold. The first was to gather a wide range of information regarding patients suffering from Female pattern hair loss and assess the psychosocial consequences of the disease. The second was to analyze if there is a relationship between different factors (demographic items, illness-specific data or risk factors of the disease) and the psychosocial status of the females involved in the study.

II. MATERIAL AND METHOD:

STUDY DESIGN

The study was a prospective one and was performed from April to December 2012. The protocol had been previously approved by the Ethics Committee of the University of Medicine and Pharmacy "Iuliu Hatieganu" Cluj-Napoca. Gathering patient information was done by completing a special hair loss questionnaire with 22 items regarding: demographic items, illness-specific data, risk factors, phsychosocial consequences, treatment.

Our new hair loss questionnaire was developed in March 2012, with the intention to be concise, time effective and full of relevant information for the patients' case and for the doctor's outlook of the hair disease the patient was suffering from. The questionnaire was tested in a previous study and the result of the assessment performed by the patients and the doctor supported the idea that it was a useful investigation tool that could be used successfully in daily clinical practice.

STUDY SUBJECTS

35 female subjects were recruited from a Private Office of Dermato-Venerology Care in Cluj-Napoca, Romania. They were diagnosed with Female pattern hair loss on the basis of personal history, clinical criteria and trichoscopy assessment. Only 28 patients fulfilled the inclusion criteria: females, age between 18 and 50 years old, FPHL grade I – III or frontal pattern according to Ludwig Scale and willingness to participate to the study. The study subjects agreed to sign the informed consent and received the special hair loss questionnaire to complete

III. RESULTS

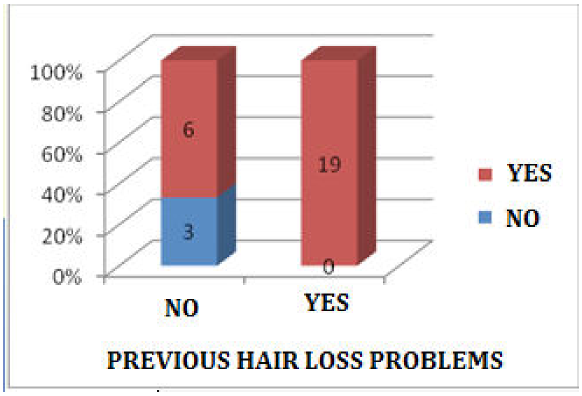
Self-confidence was affected in the majority of cases: 16 women (57%) reported the reason was the hair loss process.

The mood of the patients with FPHL was generally influenced by the hair loss problem, and 25 patients (89%) declared to be depressed.

Analyzing these two results, we thought of assessing the possible factors that influence the mood of the patients, affect the life of the women with FPHL and the time dedicated to the alopecia problem. We raised three important questions:

1.WHAT INFLUENCES THE MOOD OF THE PATIENTS WITH HAIR LOSS?

Figure 1: Number of patients with personal history of alopecia and the ratio in which they suffer from depression.



Women suffering from FPHL for a while, who had already experienced hair loss, were likely to suffer from depression in 100% of the cases, as compared to patients who got the new diagnosis of FPHL and became depressed in 66,7% of the cases. From the statistical analysis point of view, the p was very significant p=0,03.

The mood of the patients with hair loss was not influenced by:

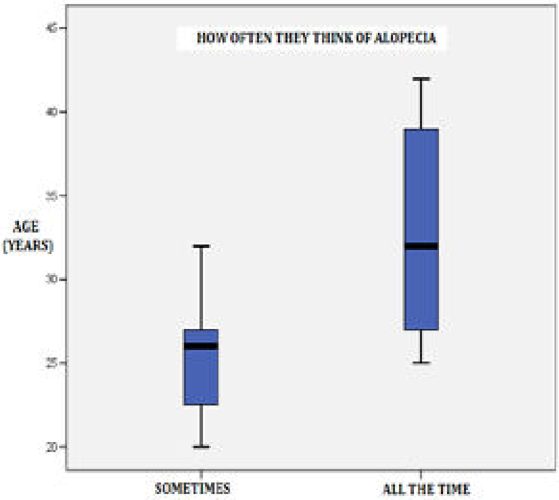
- demographic indices,
- other illness specific data (complaints, visibility of scalp, duration of FPHL, severity of FPHL, type of hair)
- risk factors (family history of FPHL, cosmetic products, thermal devices, mechanic actions, hair covering items)

We could not detect a significant difference in the mood of the patients as far as the age groups were concerned. We did not find a "more depressed" group, as the p value was 0,27.

2. WHAT INFLUENCES THE TIME DEDICATED TO THINKING OF HAIR LOSS?

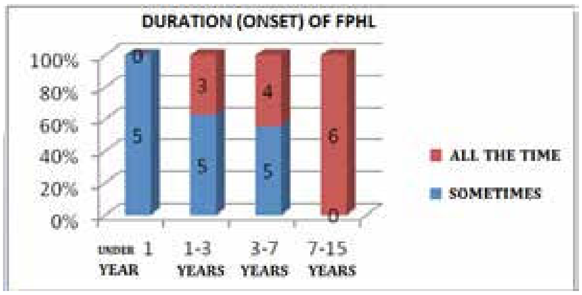
A big number of patients 46.4% reported they thought of hair loss "all the time" and to a more significant degree when combing and washing the hair (17.8%).

Figure 2: Age of patients and the frequency with which they think of hair loss disorder.



There was a significant age difference between the patients who thought "all the time" and those who thought only "sometimes" (when washing, combing, both). Mean age was higher in the group of people who thought about hair loss "all the time", with an extremely significant p=0,002.

Figure 3: Patient distribution according to the onset of the disease and the frequency with which they think of hair loss disorder.



Duration of FPHL influenced significantly the time dedicated to thinking about the disease.

- patients suffering from the disease less than 1 year didn't think about hair loss at all (0%)
- 37% of the patients (with an onset between 1-3 years) thought of hair loss "all the time"
- 44,4% of the patients (with an onset between 3-7 years) thought of FPHL "all the time"
- 100% of the patients (with an onset between 7-15 years) thought of hair loss "all the time"

From the statistical analysis point of view, the p was very significant (p=0,009)

The time dedicated to thinking about the disease was not influenced by :

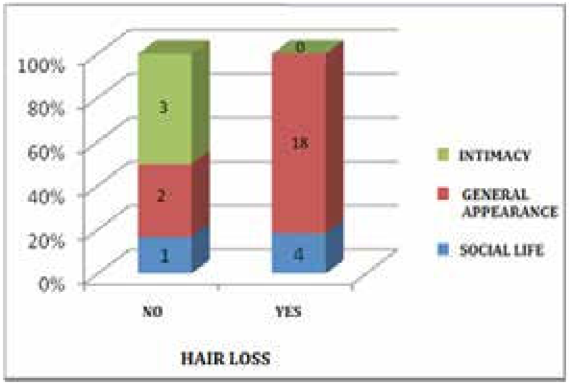
- demographic indices,
- other illness specific data (complaints, visibility of scalp, severity of FPHL, type of hair)
- risk factors (family history of FPHL, personal history of

FPHL, cosmetic products, thermal devices, mechanic actions, hair covering items)

3. WHAT ARE THE TYPES OF COMPLAINTS THAT INFLUENCE THE LIFE OF FPHL PATIENTS ?

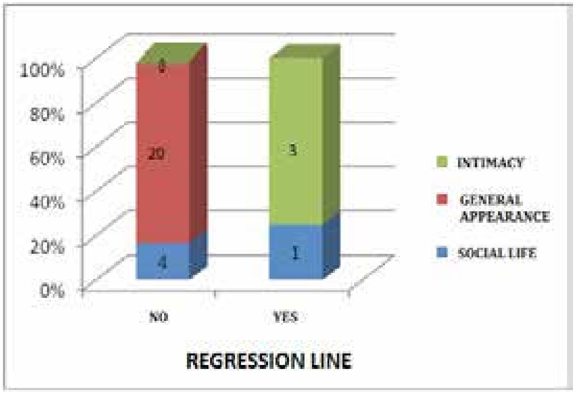
Most of the patients (71.4%) felt their general appearance suffered from having alopecia. They confessed hair loss affected their social life and to a less degree their job and intimacy (10.7%).

Figure 4: Hair loss as major complaint of the FPHL and the degree in which it influences general appearance, social life and intimacy of patients.



Patients accusing increased hair loss as major symptom of the disease reported that general aspect was affected in 81,8% of the cases and social life in 18,2% of the cases, as compared to other women (who accused hair thinning or regression line), who had their general appearance affected in 33,3% of the cases and social life in 16,7% of the situations. From the statistical analysis point of view, the p was extremely significant p=0,002.

Figure 5: Regression line as major complaint of the FPHL (frontal pattern of FPHL) and the degree in which it influences general appearance, social life and intimacy of patients.



Patients accusing regression line as major symptom of the disease reported that general aspect was affected in 0% of the cases and social life in 25% of the cases, as compared to other women (who accused hair loss or thinning) who had their general appearance affected in 83,3% of the cases and social life in 16,7% of the situations. From the statistical analysis point of view, the p was extremely significant p<0,001.

DISCUSSION :

The psychosocial status is affected by decreased self-confidence and increased rate of depression.

As study results reflect, the patients' self-confidence is affected in the 57% of the cases. The study subjects said the reason was the hair loss process as the progression of the disease determined the alteration of their general aspect. Hair is well known to be an important component of identity and self-image[9]. In the context of hair loss the patient can experience a distorted body image and negative feelings of social disadvantages [10, 11, 12] .

Although alopecia is a benign medical condition, it generates a great psycho-emotional stress, often determining a reduction of life quality (QoL) [13]. Literature highlights that even clinically imperceptible hair loss is often correlated with a decreased QoL [9].

Our study results suggest that the mood of the patients with FPHL is generally influenced negatively by the hair loss problem. A very high percentage of patients, 89%, declared to be depressed. Offering psychological support seems therefore imperative. In a study performed in 2004, Hadshiew underlined the "Burden of hair loss" especially in female patients and suggested that by integrating stress-coping strategies into the management of the disease we could enhance the therapy results and decrease the psychological implications [13].

During our study we raised the important question regarding the possible causes or factors that can influence the patients' mood. We found that the answer was the personal history of alopecia or the onset of the disease. Women suffering from FPHL for a while, who had already experienced hair loss, were likely to suffer from depression in 100% of the cases, as compared to patients who got the new diagnosis of FPHL and became depressed in 66,7% of the cases. Han SH and his research colleague noticed, in a recent study done in 2012, that male patients with previous experiences regarding AGA treatment tended to perceive hair loss worse. Our study suggests similar findings in female patients suffering from FPHL. Also, our results point out the negative impact of a long personal history of alopecia on the patient's mood and QoL. Several studies sustain that there is a strong correlation between the patient's perception of alopecia and the QoL [9]. Patients under treatment for alopecia can experience psychological impairment and substantial distress [8].

Younger age, longer duration of FPHL, severe grade of FPHL on Ludwig Scale were also determined to be strongly correlated with poorer QoL [9].

Our study patients were divided into 2 groups according to age :

- Group A (younger patients, aged between 18 to 30 years old): 68% of the study subjects
- Group B (mature patients, aged between 31 to 50 years old): 32% of the study subjects

No significant differences were found in race, level of education (higher secondary education/ post-secondary education), community distribution (country/urban) or occupational activity and leisure time.

The second question raised by our study was about the time dedicated to thinking about the disease. We found out that the mean age was higher in the group of people who thought about hair loss "all the time", suggesting that females from the mature patient group (31- 50 years old) were more concerned about the disease. Another important finding is the fact that the duration of FPHL influenced this parameter: 100% of the patients having an onset between 7-15 years dedicated "all their time" to thinking about the disease. Checking the literature we found that patients of younger age and longer durations of FPHL had a decreased QoL [9]. Surprisingly, only the duration of FPHL confirmed our study results concerning the exacerbated interest in the disease and the alteration of the life quality by having repetitive thoughts about alopecia.

In our study, the self-confidence was affected in 57% of cases and 71 % of the patients felt their general appearance suffered because of alopecia. These results were significant for females belonging to the young age group, between 18 and 30 years old. Similar findings were discovered in young men, as hair loss had negative effect on self-image and self-esteem, making it difficult to find life partners and employment [9, 14,15].

The third and last questions raised by the study was about the type of complaints that influence the life of the patient suffering from FPHL. Patients accusing hair loss as major symptom of the disease reported that general appearance was affected in 81,8% of the cases, while symptoms such as the regression line, affected the patients' general appearance in 0% of the situations. This suggests that if the hair disorder is less diffuse and easier to hide to society, females feel more confident about their looks and the patient's life is not affected in a significant manner.

The results of our assessment suggest that the factors that influence the psychosocial status of FPHL patients are :

- positive personal history of hair loss problem
- increased age of the patient
- long duration from onset of FPHL
- increased hair loss or regression line type of FPHL

CONCLUSION

1) Applying our concise questionnaire with target questions was time saving and effective for collecting information about the patient's FPHL.
2) The psychosocial status is affected by decreased self-confidence and increased rate of depression.
3) The psychosocial impact of FPHL is deeper than generally thought because the progression of the disease determines the alteration of the patient's general aspect.
4) Due to its implications, the psychological support for FPHL patients should be included in the classical treatment scheme.
5) The results of the questionnaire suggest a close relationship between different aggravating factors and the psychosocial status of the patients involved in the study.

REFERENCES

[1] McElwee, K J., Shapiro, JS. Promising therapies for treating and/or preventing androgenic alopecia. Skin therapy letter, 2012; 17 (6): 1–4. | [2] Leavitt, M. Understanding and Management of Female Pattern Alopecia. Facial Plastic Surgery, 2008; 24 (4): 414–427. | [3] Thomas, J. Androgenetic Alopecia – Current status. Indian J Dermatol, 2005; 50:179-190. | [4] Drake, LA., Dinehart, SM., Framer, ER., et al. Guidelines of care for androgenetic alopecia. J Am Acad Dermatol, 1996; 35:465-468 | [5] Reid, EE., Haley, AC., Borovcka, J., et al. Clinical severity does not reliably predict quality od life in women with alopecia areata, telogen effluvium or AGA. J Am Acad Dermatol, 2012; 66:e97-e102. | [6] Cash, TF., Price, VH., Savin, RC. Psychosocial effects of Androgenetic alopecia on women: a comparison with balding men and female control subjects. J Am Acad Dermatol, 1993; 29 (4) | [7] Girman, CJ., Rhodes ,T., Lilly, FR., et al. Effects of self-perceived hair loss in a community sample of men. Dermatology, 1998; 197:223-229 | [8] Cash, TF. The psychological effects of Androgenetic alopecia in men. J Am Acad Dermatol, 1992; 26: 926-931 | [9] Han, SH., Byun, JW., Lee, WS., Kang, H. Quality of life assessment in Male patients with Androgenetic Alopecia: result of a prospective, multicenter study. Ann Dermatol Vol, 2012 24 (3): 311-318] | [10] Maffei ,C., Fossati, A., Rinaldi, F., Riva, E. Personality disorders and psychopathologic symptoms in patients with Androgenetic alopecia. Arch Dermatol 1994; 130: 868-872 | [11] Rushton, DH. Androgenetic alopecia in men: the scale of the problem and prospects for treatment. Int J Clin Pract 1999; 53: 50-53 | [12] Van der Donk, J., Passchier, J., Dutree- Meulenberg, RO., Stolz, E., Varhage, F. Psychologic characteristics of men with alopecia androgenetica and their modification. Int J Dermatol 1991; 30: 22-28 | [13] Hadshiew, IM., Foitzik, K., Arck, PC., Paus, R. Burden of hair loss: Stress and the underestimated psychosocial Impact of Telogen Effluvium and Androgenetic Alopecia. J Invest Dermatol, 2004; 123(3):445-447. | [14] Kim, HJ., Slim, WY., Song, JY. Assesemnt of characteristics of illness behavior and quality of life in patients with Androgenetic alopecia. Korean J Dermatol 2001; 39: 1094-1099 | [15] Price, VH. Androgenetic alopecia in adolescents. Cutis 2003; 71: 115-121 |