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Treatment outcomes and Follow-Up results of a sample of females with Frontal fibrosing Alopecia

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Abstract:
Background: Scarring alopecia may take several forms, one of which is Frontal Fibrosing Alopecia (FFA), a clinical variation of lichen planopilaris (LPP). Scarring alopecia on the hairline is a characteristic of this condition, which mostly affects women after menopause. Purpose: This research set out to conduct a retrospective trial of FFA in Egypt with the intention of evaluating its many components, including its clinical features and treatment results. **Methods:** Fifty female patients with frontal fibrosing alopecia were included in the research between January 2021 and January 2023 from the dermatology outpatient clinic of Benha University hospital. All individuals who took part in the study provided their written informed permission. A local ethics committee at Benha Faculty of Medicine reviewed the study and gave its approval for it to include human volunteers. Trichoscopic evaluation of frontal fibrosing alopecia and dermatological evaluation of clinical status were also performed on all patients. Outcomes of treatment and durations of six months to a year of follow-up were recorded.Findings: Our research comprised a total of fifty female patients. Onset occurred at an average age of 47±5.7 years. The typical time frame was 1.5±0.5 years. Additionally, characteristic symptoms of concurrent lichen planus were noted in 21 individuals (22.6%), and 28 patients (30.1%) had thyroid problems. Twelve patients (12.9%) had hypertension, while six patients (6.5%) had diabetes. There were less of other goods. **Conclusion:** FFA signifies a multi-faceted skin condition that necessitates more research because to the lack of a definitive therapy. For FFA management, it seems that intralesional corticosteroids, fenastride, and minoxidil 5% could work. Nevertheless, it is important to evaluate these findings with the design restriction in mind.

Key words : (FFA)Frontal fibrosing Alopecia,scalp, lichen planopilaris (LPP)

1.Introduction

Frontal According to [1]. fibrosing alopecia (FFA) is a clinical variation of lichen planopilaris (LPP), a kind of scarring alopecia. Scarring alopecia on the hairline is a characteristic of this condition, which mostly affects women after menopause. Clinical practice and research investigations have shown that a severity score is a useful way to categorize FFA patients [2].

The most common clinical manifestation of FFA is a receding frontotemporal hairline that looks like a band. Compared to the skin on the forehead that is constantly exposed to the sun, the skin on an alopecic area is lighter in color, smooth, somewhat atrophic, and free of follicular ostia [2].

Historical accounts of hairline recession have led to the classification of FFA into three distinct clinical patterns: linear, diffuse zigzag, and pseudo-fringe. Without density loss behind the hairline, the linear pattern is defined as a band of uniform frontal hairline recession. Diffuse zigzag patterning is identical to linear patterning, except that hair density is reduced by at least half [4].

As a clinical manifestation that resembles traction alopecia (hence the name "pseudo"), pseudo-fringe hairline recession is characterized by the retention of a small amount of hair along the hairline, particularly in the temporal region, prior to the alopecic skin. An increasing number of reports of solitary occurrences with retro-auricular, sideburns, or occipital FFA have shown that this condition is not limited to the frontal scalp [2].

One of the most prevalent features of FFA is the loss of eyebrows, either partially or entirely, often accompanied by redness around the hair follicles [2]. Some have seen a decrease in the volume of their eyelashes. Before or after hair loss on the scalp, you may notice thinning hair in other areas, such as the axillary, pubic, leg, or truncal regions. This may be accompanied by follicular keratosisand/or erythema. These characteristics are seldom noted by patients because they are often mistaken for normal hair loss associated with aging [6].

[7]. reported that people afflicted by FFA may also have classic lichen planus in other parts of

the scalp or body, lichen planus pigmentosus, and, less often, depression of the facial veins. Red spots, or facial erythema, may be widespread or limited to the forehead; it is occasionally linked to follicular keratosis According to [8]. there is perifollicular erythema and follicular hyperkeratosis, also known as pilar casts.

2.Patients and Method

The The study was given the green light by the local ethics council of Benha Faculty of Medicine for research involving human beings. All individuals who took part in the study gave their written informed permission. Fifty female patients with frontal fibrosing alopecia were included in the trial between January 2022 and January 2023 from the dermatology outpatient clinic at Benha University hospital.

All patients were subjected to the following:

.1Complete background check:

The patient's medical history should include their name, age, and any problematic behaviors they may have.

Current medical history, including date of illness beginning and length of illness

[Previous conditions] (such as hypertension, medication side effects, diabetes, thyroid issues, lichen planus, RA, and SL)

My family has a history of fighting fatigue syndrome.

2. Medical Assessment:

Final test:

We measured each subject's height in meters and weight in kilos.

BMI A person's body mass index (BMI) is calculated by dividing their weight (in kilograms) by their squared height (in meters squared). Overweight is defined as a body mass index (BMI) of 25.0 or more; a healthy range is 18.5–24.9. Adults between the ages of 18 and 65 are often included in the BMI calculations [9].

Skin and local area evaluations:

The skin was checked for any further skin conditions.

Clinical evaluation of frontal fibrosing alopecia using a dermatological examination.

Trichoscopic examination.

Final Product

Fifty women diagnosed with frontal fibrosing alopecia participated in the research. Their ages varied from thirty-nine to sixty-five. From 38 to 58 years old, people began to experience symptoms of the condition. Persistent illness lasted anywhere from one year to three years (Table 1).

Table (1) History findings in the studied cases.

		Patients N=50
Age of onset (years)	**Mean±SD**	**47±5.7**
Duration (years)	**Mean±SD**	**1.5±0.5**
Positive family history	**N (%)**	**11(22)**

SD: standard deviation.

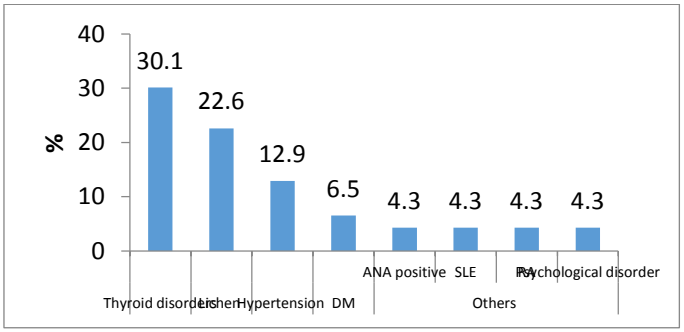

Fig. (1) Comorbidities in all studied cases.

Figures 2, 3 show the clinical indicators that were discovered during the examination: receding hairlines in the frontotemporal and frontoparietal areas, thinning eyebrows and eyelashes, papules on the face, and depressed veins on the face.

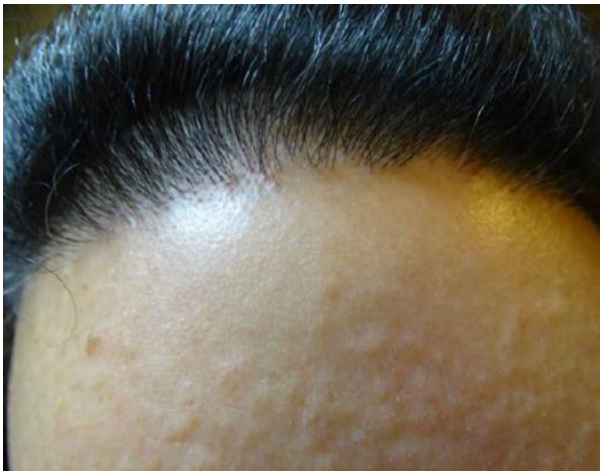

Fig. (2) FFA with prominent facial papules.

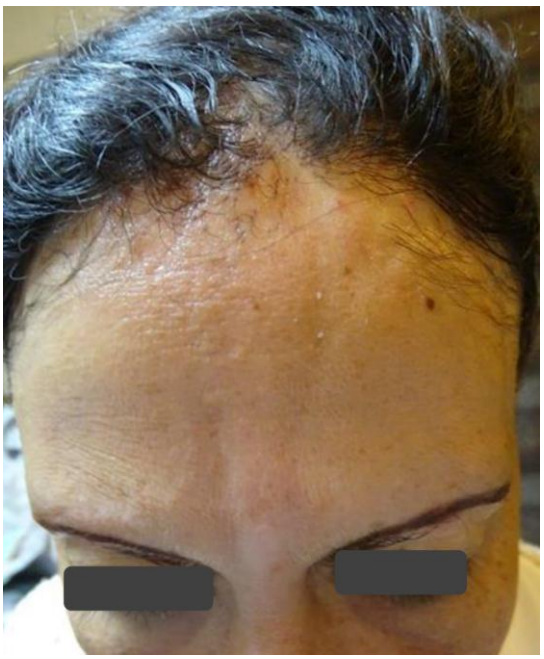

Fig. (3) FFA; receding hairline, sagging eyebrows, and drooping facial veins.

Trichoscopic findings

A decrease in follicular ostia, perifollicular desquamation, and perifollicular blue-gray specks was seen during trichoscopy. A reddening around the hair follicles (follicular hyperkeratosis), Alopecia areata is characterized by a lack of vellus hairs, an abrupt break in the hairline, and a generally unhealthy scalp (Figure 4).

Fig. (4) Trichoscopy reveals scales between hair follicles, perifollicular scaling, vellus hair loss, follicular opening loss, and isolated hairs.

4.Discussion

Associated These patients also had a history of thyroid issues, lichen planus hypertension, diabetes mellitus, rheumatoid arthritis type A, systemic lupus erythematosus, mental health issues, and a positive anaphylaxis.

Researchers at Germany's Department of Dermatology and Allergy at the Charité-Universitätsmedizin Berlin and France's Centre de Sant Sabouraud performed an observational, cross-sectional, descriptive research. Thyroid function disorders(38%), arterial hypertension(18%), and lipid metabolic disorders (22% of women) were the most frequently reported comorbidities between 2013 and 2018. In 2017, Alegre-Sanchez and colleagues

Subjects varied in the distribution of hair loss, which included frontotemporal and frontoparietal thinning, as well as thinning of the eye brows and lashes. The presence of a high hairline is an essential indicator of frontal fibrosing alopecia. In most cases, recession of the fronto-parieto-temporal hairline occurs in a symmetrical pattern on both sides of the scalp and may spread to the area behind the ears and the occipital edge. Furthermore, the band across the frontal hairline may be painful, itchy, or burning for those with frontal fibrosing alopecia. One of the first symptoms of frontal fibrosing alopecia, which might occur months or even years before the hair starts to fall out, is a loss of hair on both sides of the eyebrow. In contrast to the scalp, where redness and scaling are widespread, the eyebrow region is more likely to be unaffected in the distal third. Another symptom is a gradual or sudden loss of eyelashes. Palpation will reveal more noticeable frontal veins as a dip close to the hairline. Theoretically, the culprit is cutaneous atrophy. According to [11]. the facial papules that occur in frontal fibrosing alopecia may be categorized as follicular, normochromic, or monomorphic. These papules are dispersed randomly around the face and are not immediately noticeable, but they can be better seen on the temples.

Follicle hyperkeratosis, erythema, perifollicular scaling, and the lack of follicular openings and vellus hair at the frontal hairline are all visible on a trichotoscopic examination. On the other hand, perifolicular scaling is often less common and milder in FFA compared to LPP. However, pili torti was found more often, which is a good indicator of FFA. Even more surprising, research has shown that FFA may include vellus hairs[12].

Follicle ostia, perifollicular desquamation, and perifollicular blue-gray spots were all significantly reduced using trichoscopy in this research. A reddening around the hair follicles (follicular hyperkeratosis), Apparent lack of vellus hairs, a sudden break in the hairline, and solitary hairs are all symptoms of alopecia.

The majority of patients were treated with fenastride 2.5 mg, along with topical steroids, isotretinoin, and Minoxidil 5%. Other patients got other lines of treatment. A follow-up period ranging from 6 to 12 months was attended to. A total of 34 patients (68%) did not exhibit any signs of disease activity after the follow-up period. Data was analyzed from

both the patients who responded and those who did not. Age, duration of follow-up, age of FFA start, concomitant condition, and treatment line were all factors.Respondents' mean age was 51.51 years, whereas non-respondents' average age was 48.37 years; p-value = 0.246.

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