



HAIR DISORDERS

## DEVELOPMENT AND VALIDATION OF A DERMOSCOPY SEVERITY SCORE OF FEMALE PATTERN ALOPECIA

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**Background:** Female pattern alopecia (FPA) is a frequent chronic non-scarring alopecia, which causes impaired quality of life and whose treatments lead to discreet improvements, with difficult clinical perception in the short term. Despite the prevalence and impact on quality of life, there are not objective and sensitive assessment methods to estimate its severity.

**Objective:** To develop a dermoscopic severity score of FPA.

**Material and Methods:** A cross-sectional study, involving 76 women with FPA and 12 controls. In addition to clinical-demographic data, standardized 1 cm<sup>2</sup> dermoscopic photos of the scalp (frontal and occipital) were taken to evaluate the main findings of FPA. The variables were selected by multivariate analysis and their scores defined by generalized linear model. Twenty participants were retested. External validation and evaluation of responsiveness scores were based on the measurement of 10 patients showed improvement using oral minoxidil (1mg/d) for 6 months.

**Results:** Among the participants with FPA, 8 patients (11%) presented the Sinclair classification grade 1, 40 (53%) 2, 19 (25%) 3, 9 (12%) 4 and 5. Twenty-two dermoscopic findings constituted 32 variables (Table 1). At the multivariate exploration, the variables that were considered significant for the score were: total terminal hairs, total miniaturized hairs, brown peripilar signs, scalp honeycomb pigmentation, white peripilar sign, yellow dots; all findings from the frontal evaluation (Table 2). The final model presented (rho) of 0.89 with the clinical order (Image 1) and (rho) of 0.87 with the Sinclair classification (Image 2). The retests resulted in an intraclass correlation coefficient (ICC) of 0.98 (p <0.01).

**Conclusions:** An objective and reproducible severity score of FPA was created and validated, allowing its use as an outcome in therapeutic trials.

