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## Impact of Psychological Intervention in Women with Alopecia Areata Universalis: a Pilot Study<sup>☆</sup>

# Impacto de la intervención psicológica en mujeres con alopecia areata universal: un estudio piloto

To the Editor:

Alopecia areata universalis (AAU) is a chronic disease that, not only involves a physical discomfort, but it can also entail a mental health problem due to its relapsing nature and a great impact in self-image. In fact, some studies showed that the likelihood of being attended in mental health services is higher in these patients. Moreover, a recent meta-analysis found that alexithymia, anxiety and depression are common in patients with AAU, and authors encourage to refer these patients to specialist attention for a better management. Regarding psychological impact, new studies addressed consequences of living with AAU at different levels, such as cognitive (e.g. negative thoughts related to their hair and appearance, hopelessness), emotional (e.g. sadness), and behaviour (e.g. a restricted life as part of social withdrawal).

Within other countries like UK, collaboration between psychology and dermatology professionals is growing, considering that psychological assessment and treatment should be part of the healthcare of dermatology patients.<sup>4</sup> However, despite being the medical assistance of these



patients a prevalent phenomenon that greatly impacts our daily clinical practice, very little information is available regarding psychological treatment of these issues. That is, literature is scarce regarding psychological treatments for AAU patients. To our knowledge, this is the first study that have addressed how a cognitive-behavioural therapy, in a psychoeducative group setting, can help in the clinical care of women with AAU.

In order to assess if the usefulness of this psychological intervention in these patients, and to identify key elements that may allow us to improve our quality of assistance in this area, we conducted a pilot study with a group of AAU patients that were followed-up at the Trichology Unit in the Hospital Ramón y Cajal, Madrid. The intervention consisted of nine fortnightly sessions in a psychoeducative group setting. Cognitive-behavioural techniques were used, such as problem-solving, cognitive restructuring, relaxation and social skills. The impact on QoL, sleep, anxiety and alexithymia were measured using validated scales. All statistical analyses were performed using a statistical software package (IBM SPSS Statistics for Macintosh, Version 21.0, released 2012; IBM Corp., Armonk, NY, USA). To study significant difference between after and before intervention t-test and Pearson correlation coefficient were used. All tests were 2-sided and statistical significance was considered with p < 0.05.

A total of 16 women diagnosed with AAU were included. Their mean age was 45.1 years (range 24-64). Pre-post treatment comparisons are given in Table 1 in more detail. Results showed an improvement in the QoL (p=0.041) and sleep (p<0.01), while a paradoxical increase was found in alexithymia (p=0.025). No other significant differences were found between the beginning and the end of the treatment. Furthermore, correlation tests were conducted between variables. At the beginning, the quality of sleep seemed to be related with anxiety (r=0.660), depression (r=0.621) and self-steem (r=0.580). At the end of treatment, depression was also significantly related with QoL (r=0.519), whereas anxiety was associated with alexithymia (0.532), as well as with depression (r=0.599) and self-steem (r=-0.567).

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Table 1 Clinical features and pre-post comparisons in psychological outcome.

Variable		$M\pm DT$	р
CLINICAL FEATURES		$24.45 \pm 18,55$	
Age of onset (years)		$\textbf{15.56} \pm \textbf{12.41}$	
Duration of the alopecia (years)		$\textbf{4.00} \pm \textbf{1.85}$	
Number of treatments received		$\boldsymbol{9.00 \pm 8.99}$	
PSYCHOLOGICAL FEATURES			
Quality of life (Dermatology Life Quality Index - DLQI)	PRE		0.041*
	POST	$5.44 \pm 5.15$	1.000
Depression	PRE	$\textbf{18.20} \pm \textbf{9.47}$	
(Beck Depression Inventory- BDI)	POST	$\textbf{18.20} \pm \textbf{10.28}$	
State anxiety	PRE	$57.75 \pm 29.25$	0.160
(State-trait Anxiety Inventory -STAI )	POST	$48.88 \pm 23.17$	
Self-steem	PRE	$31.86 \pm 4.09$	0.426
(Rosenberg Self-esteem Scale - RSES)	POST	$31.00 \pm 4.96$	
Sleep	PRE	$\boldsymbol{9.80 \pm 6.37}$	0.000**
(Oviedo Sleep Questionnaire - OSQ)	POST	$\textbf{0.93} \pm \textbf{0.79}$	
Alexithymia	PRE	$43.93 \pm 22.85$	0.025*
(Toronto Alexithymia Scale – TAS-20)	POST	$55.67 \pm 16.75$	

<sup>\*</sup>p < 0.05; \*\*p < 0.01.

These results have several implications. Firstly, the psychological intervention seems to be effective to improve QoL and sleep in women with AA, which are basic for the wellbeing of our patients. Some authors stated that patients with AAU have multiple risk factors for mental health disorders.<sup>5</sup> such as psychological distress and a significant degree of impairment in quality of life (QoL. Despite more research is needed to thoroughly study the association between QoL, sleep quality and well-being in AAU patients, it suggests that it is strongly encouraged to bear these variables in mind when treating patients with AAU. The psychologist's role in AAU patients is to improve the availability and use of personal resources and abilities to cope with their distress, improving their personal, social and family quality of life.6 Furhermore, additional measures such as IPDE might be useful to discriminate personality profiles that are associated with QoL and clinical course in AAU.7

Secondly, a modest improvement was observed in anxiety, despite not being significant, which might be explained for the little sample size and the restricted period of time. Some improvements such as quality of sleep of little details regarding QoL in AA patients are easier to achieve faster than others which are more complex, such as anxiety or depression, which often need more than a few weeks to change.

Finally, regarding the paradoxical increase found in alexithymia, it might be part of the process of starting to recognize self-emotions. Some patients may be still confused about emotions, while others already know how to identify them, how they feel but not how to express it. Future studies may shed light in this issue.

Some limitations must be noted. Our sample is exclusively composed of women, so results cannot be generalized to male AAU patients and the sample size is very limited.

In conclusion, our preliminar results show the positive impact of psychological interventions to improve AAU patients' QoL. It supports the collaboration between psychologists and dermatologists to improve clinical mana-

gement of dermatological disease. These data will be useful for future studies regarding the impact of psychological intervention in patients with alopecia areata.

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### Moderate to Severe Hidradenitis Suppurativa Successfully Treated With Secukinumab\*



# Hidradenitis supurativa moderada-grave tratada exitosamente con secukinumab

To the Editor:

Hidradenitis suppurativa (HS) is a chronic and recurrent inflammatory disease of the follicular infundibulum that principally affects the intertriginous regions. The estimated prevalence is 1%. T-helper (Th)-17 lymphocytes and neutrophils are the main source of the proinflammatory cytokines involved in the pathogenesis of HS.<sup>1</sup>

We report our experience with 3 patients with moderate to severe HS treated with 300 mg of subcutaneous secukinumab, as per the induction and maintenance regimen indicated in psoriasis. All patients signed an informed consent of off-label use. The patients were evaluated before and after treatment using the Hurley score, the International Hidradenitis Suppurative Severity Scores System, and the Modified Hidradenitis Suppurativa Score (mHSS). Serum levels of C-reactive protein before and after treatment were evaluated as a parameter of systemic inflammation. We evaluated achievement of the Hidradenitis Suppurativa Clinical Response (HiSCR) therapeutic goal. We also performed a quality of life evaluation using the Dermatology Life Quality Index (DLQI). We also recorded data on prior and concomitant treatment, response time, and treatment time with secukinumab. All these data are shown in Table 1 and images of 1 of the patients are shown in Fig. 1.

All 3 patients presented stage 3 on the Hurley scale, a score of 10, 28, and 32 on the DLQI, a score of 12, 13, and 15 on the International Hidradenitis Suppurativa Severity Scores System, and a score of 48, 56, and 59 on the mHSS

HS is a systemic inflammatory disease, the pathogenesis of which involves principally Th-17 lymphocytes and neutrophils.<sup>2</sup> The IL-23 produced by the dendritic cells favors differentiation into Th-17 lymphocytes. Th-17 lymphocytes promote the recruitment of neutrophils implicated in the inflammatory response of HS.<sup>2</sup> Secukinumab is a human monoclonal antibody that inhibits both IL-17A and the interaction of cytokines with the IL-17 receptors. IL-17 regulates the expression of the antimicrobial peptides and is overexpressed in HS lesions and in the HS perilesional skin, which may explain the efficacy of anti-IL-17 drugs in HS.<sup>2</sup>

Treatment of HS poses a challenge for dermatologists and includes a medical and surgical approach. Medical treatment is based on scaled regimens of antibiotics, retinoids, and biological drugs.<sup>3</sup> Adalimumab is currently the only biological drug approved by both the US Food and Drug Administration and by the European Medicines Agency.<sup>1,3</sup> In recent years, however, studies have been published on the efficacy of secukinumab in moderate to severe HS.<sup>4-9</sup>

To date, secukinumab has demonstrated its efficacy in 5 case reports<sup>4–8</sup> and in just 1 open trial with 9 patients,<sup>9</sup> for which it was not possible to establish comparable relationships due to the lack of unanimity in the use of severity scores.

We present our experience with 3 patients with moderate to severe HS treated with secukinumab off label. All 3 patients achieved the HiSCR objective and no adverse effects were observed during treatment. Our results, together with the cases published in the literature, support the need for randomized phase-III trials to evaluate the efficacy and safety of secukinumab in HS.

prior to start of treatment. The response time was 4, 8, and 12 weeks. All the patients achieved a reduction of 53% on the DLQI, 85% on the IHS, 94.7% on the mHSS, and all patients showed improvement on the Hurley scale (Table 1). Levels of C-reactive protein fell by more than 70% in all cases (74%, 81%, and 85%). All patients achieved the HiSCR therapeutic goal. No adverse effects were observed during treatment.

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