



### CASE AND RESEARCH LETTER

#### Real-Life Experience of Secukinumab in Patients With Hidradenitis Suppurativa



#### Secukinumab en hidradenitis supurativa, experiencia en práctica clínica real

Dear Editor,

Hidradenitis suppurativa (HS) is a prevalent chronic inflammatory disease with a several impact in patients life style and healthcare system. Adalimumab is the only approved biological therapy for HS and sometimes patients could not have an optimal response to it or contraindication for the use.<sup>1–4</sup> In HS patients, the expression of interleukin 17 (IL-17) is increased<sup>5,6</sup> and the IL-17 pathway blockade could be a potential therapy to treat HS specially in complex patients after adalimumab failure. In the last years some authors have reported their experience about secukinumab employment for the HS treatment.<sup>7,8</sup> Prussick L et al.<sup>9,10</sup> published an open label single trial evaluating secukinumab in 9 patients with HS and obtained a clinical regression in 78% of patients without reporting any adverse events. After that Reguiaí Z et al.<sup>10</sup> reported their experience in a retrospective study based on a 20 patients cohort treated with secukinumab confirming efficacy (75% of patients achieved HISCR at week 16) safety (despite the report of two cases of bowel disease onset) and a therapeutic response maintenance.

On this topic we decided to contribute with a retrospective study on a cohort of 14 patients diagnosed of severe HS and treated with secukinumab who have previously failed to other classic or biological treatments. Our primary outcome was the proportion of patients who achieved HISCR after 12 weeks of treatment without developing severe adverse events. Secondary outcomes included the evolution of the disease, PGA score, the needed of dose intensification and the optimal response maintenance. We included 14 patients (35% male and 65% female) with a median of 39 years and mass body index (MBI) of 27.6. The main comorbidity found was smoking (85%), and 58.3% had diabetes, hypertension or dyslipidemia. One patient had HIV and another had hepatitis B. Depression or anxiety were common (nearly from 60% of patients). Hurley stage was III in all patients (100%). The mean PGA was 4 (severe HS),

the mean IHS4 was 15.5, and the mean HS duration was 15.6 years. (**Table 1**) In all of them HS treatment included multiple long cycles of antibiotics, retinoids, TNF alpha inhibitors (Adalimumab during 5–50 months with mean of 15.7 months including 80 mg subcutaneous intensification every 7 or 10 days instead every two weeks in some of them). Three of them also received ustekinumab without optimal response. Secukinumab 300 mg subcutaneously was administered weekly for 5 weeks and then every 4 weeks up to 12 weeks.

After 12 weeks 85% of patients (12/14) achieved a successful HISCR, and decreased their PGA from 4 to 2 also without developing any severe adverse events. Two patients who did not achieve HISCR also improved their PGA score and EVA. After an average follow up of 9 months since secukinumab first administration, two cases of secondary failure were observed in patients who achieved HISCR at first (2/12), decreasing global efficacy to 71.4% (10/14). In two patients (2/10) with optimal response, secukinumab was intensified every 3 weeks (21 days) instead the classic therapeutic regimen (every 4 weeks) due to a small relapse, keeping the response maintenance. In the two patients who did not achieve HISCR and in one with secondary failure secukinumab intensification rescue firstly every 3 weeks and then every 2 week was tried without success; the other patient with secondary failure was switched to guselkumab. No several adverse events were observed including bowel disease development or several infections (**Table 2**).

In accordance to other reports, our study confirmed the efficacy, response maintenance and safety of secukinumab for the treatment of recalcitrant HS. The global percentage of response (71.4%) might not seem excellent compared with psoriasis but we have to take into account that all patients of the cohort have a severe disease that failed previously to classic therapies and other drugs as adalimumab (or ustekinumab in some cases). We have no data on naïve patients but the response might also be better. Based in our experience, secukinumab intensification (every 3 or 2 weeks) does not seem to be useful in patients who don't respond firstly but it could be an alternative in well-controlled patients who suffer a temporary relapse. Finally, it is mandatory to understand that molecular pathways of inflammation in HS are more complex than those observed in psoriasis, so it is expected to have temporary relapses despite an overall optimal control during the treatment, being essential to distinguish between outbreak and therapy failure.

**Table 1** Cohort Epidemiological Details.

| Patient | Gender | Age & (age of onset) | Location (A/I/P/M) <sup>a</sup> | BMI  | Cigarettes/day | Comorbidities <sup>b</sup>               | Cardiovascular risk factors <sup>c</sup> |
|---------|--------|----------------------|---------------------------------|------|----------------|--|--|
| 1       | Male   | 35 (27)              | A, I                            | 21.3 | 10             |  | NO                                       |
| 2       | Male   | 61 (15)              | A, I                            | 30.4 | 30             | Ischemic cardiopathy                     | YES                                      |
| 3       | Female | 46 (40)              | A, I, M, P                      | 40   | 0              | Asthma                                   | YES                                      |
| 4       | Male   | 31 (19)              | I, P                            | 28.4 | 15             | Steatosis                                | NO                                       |
| 5       | Male   | 52 (28)              | I, P                            | 22.1 | 10             |  | YES                                      |
| 6       | Female | 23 (17)              | I, M                            | 39.4 | 0              | Obesity                                  | NO                                       |
| 7       | Female | 49 (No available)    | I                               | 25.9 | 6              | Psoriasis                                | YES                                      |
| 8       | Female | 42 (25)              | I, P                            | 25.1 | 0              |  | NO                                       |
| 9       | Male   | 35 (24)              | A, P                            | 32.4 | 20             |  | YES                                      |
| 10      | Female | 33 (21)              | I, P                            | 26.2 | 20             | Urticaria                                | YES                                      |
| 11      | Female | 46 (18)              | I, P                            | 22.6 | 4              | HBV                                      | NO                                       |
| 12      | Female | 51 (43)              | A, I, P                         | 28.8 | 2              | HIV, SAHS                                | YES                                      |
| 13      | Female | 32 (11)              | I, P                            | 18.6 | 5              | Membranous glomerulonephritis, arthritis | NO                                       |
| 14      | Female | 55 (26)              | A, I                            | 25.2 | 20             |  | YES                                      |

<sup>a</sup> A (axillary) I (inguinal) P (Perineal including anal, genital or both) M (inframammary).<sup>b</sup> Only including relevant comorbidities.<sup>c</sup> Cardiovascular risk factors including diabetes, hypertension and dyslipidemia (all of them or anyone).**Table 2** Secukinumab Efficacy and Security in Our Sample.

| Patient | Gender | IHS4 pre secukinumab <sup>a</sup> | HISCR week 12 | Secukinumab intensification (300 mg) | Response maintenance | Previous biologic treatment | Adverse events <sup>b</sup> |
|---------|--------|-----------------------------------|---------------|--------------------------------------|----------------------|-----------------------------|-----------------------------|
| 1       | Male   | 34                                | NO            | 21 days, 15 days                     | NO                   | ADALIMUMAB                  | NO                          |
| 2       | Male   | 24                                | YES           | 21 days, 15 days                     | NO                   | ADALIMUMAB, USTEK-INUMAB    | NO                          |
| 3       | Female | 22                                | NO            | 21 days, 15 days                     | NO                   | ADALIMUMAB                  | NO                          |
| 4       | Male   | 8                                 | YES           | 21 days                              | YES                  | ADALIMUMAB                  | NO                          |
| 5       | Male   | 8                                 | YES           | NO                                   | YES                  | ADALIMUMAB                  | NO                          |
| 6       | Female | 10                                | YES           | NO                                   | YES                  | ADALIMUMAB                  | NO                          |
| 7       | Female | 10                                | YES           | NO                                   | YES                  | ADALIMUMAB, USTEK-INUMAB    | NO                          |
| 8       | Female | 34                                | YES           | NO                                   | NO                   | ADALIMUMAB, USTEK-INUMAB    | NO                          |
| 9       | Male   | 13                                | YES           | NO                                   | YES                  | ADALIMUMAB                  | NO                          |
| 10      | Female | 8                                 | YES           | 21 days                              | YES                  | ADALIMUMAB                  | NO                          |
| 11      | Female | 8                                 | YES           | NO                                   | YES                  | ADALIMUMAB                  | NO                          |
| 12      | Female | 12                                | YES           | NO                                   | YES                  | ADALIMUMAB                  | NO                          |
| 13      | Female | 14                                | YES           | NO                                   | YES                  | ADALIMUMAB                  | NO                          |
| 14      | Female | 10                                | YES           | NO                                   | PENDING              | ADALIMUMAB                  | NO                          |

<sup>a</sup> 300 mg weeks 0,1,2,3,4 and then 300 mg every 28 days.<sup>b</sup> Severe adverse events including bowel disease development or infection.

## Conflict of Interest

The authors declare they have no conflict of interest.

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F.J. Melgosa Ramos\*, R. García-Ruiz,  
H. Gegúndez Hernández, A. Mateu-Puchades

*Department of dermatology, University Hospital Doctor Peset of Valencia, Spain*

\*Corresponding author.

E-mail address: [fjmr@usal.es](mailto:fjmr@usal.es) (F.J. Melgosa Ramos).