RESEARCH LETTER

Real-world Outcomes of Adalimumab in Hidradenitis Suppurativa: A 10-year Retrospective Longitudinal Study

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Submitted Apr 24, 2026. Accepted after revision Jun 11, 2026
Published Jul 1, 2026. DOI: 10.2340/actadv.v106.adv-2026-0636 Acta Derm Venereol 2026; 106: adv-2026-0636.

To the Editor,

Hidradenitis suppurativa (HS) is a chronic recurrent inflammatory skin condition characterized by painful nodules, abscesses and sinus tracts, significantly affecting quality of life (1). Adalimumab was the first biologic approved for treating moderate-to-severe HS (2). Despite the newer biologic options (3), adalimumab remains widely used, and real-world data on its long-term effectiveness are valuable for guiding clinical decisions.

We conducted a retrospective longitudinal study of patients with HS treated with adalimumab at a tertiary centre between 2015 and 2024. Epidemiological, clinical and therapeutic data were collected. Disease severity was assessed with the Hurley staging system. Treatment response was evaluated using the Hidradenitis Suppurativa Clinical Response (HiSCR50) criteria, defined as at least a 50% reduction in the number of inflammatory nodules and abscesses, with no increase in abscesses or draining fistulas (4). Primary failure was defined as failure to achieve HiSCR50 at Week (W) 16 or W24, and secondary failure as loss of HiSCR50 after initial achievement. HS activity and response to adalimumab were monitored at baseline and at W16, W24 and W52. Patients were required to have a baseline assessment and at least 16 weeks of follow-up to be included. The primary effectiveness outcome was the achievement of HiSCR50 at W16 and W24. Secondary outcomes included HiSCR50 at W52 and during long-term follow-up.

Seventy-nine patients were included, with a median age of 37 years and a male-to-female ratio of 1.39. Most had a history of smoking (70.9%), and 24.1% were obese. A family history of HS was reported in 21.5%. The mean diagnostic delay was 6.1 years. Most patients (87.3%) had severe disease. The most frequently involved areas were the axillae (81.0%) and the inguinal-genital area (78.5%) (**Table I**).

Nearly all patients (97.5%) had previously received oral antibiotics. Surgery was performed in 32.9%. During adalimumab treatment, adjunct therapies included oral antibiotics (49.4%), systemic corticosteroids (12.7%) and surgery (30.4%).

At W16, 91.3% met HiSCR50 criteria, increasing to 92.8% at W24. At W52, 40 out of 47 patients (85.1%) maintained this response. Among the 34 patients following beyond 1 year (up to 114 months), HiSCR50 was sustained in 22 cases (64.7%). In the Intention-to-Treat analysis using nonresponder imputation, HiSCR50 rates were 79.7% at W16, 81.0% at W24, 50.6% at

Table I. Baseline characteristics, clinical features and therapeutic outcomes of patients with hidradenitis suppurativa treated with adalimumab (*n*=79)

Characterization of the included patients		
Demographics		
Age, years, median (min-max)	37 (15–65)	
Male: female ratio	1.39	
Current/ex-smoker, n (%)	48/8 (60.8/10.1%)	
Body mass index, kg/m^2, median (min-max)	26.6 (17.2–40.5)	
Overweight/obese[a], n (%)	33/19 (41.8/24.1%)	
Family history of HS, n (%)	17 (21.5%)	
Age at diagnosis, years, median (min-max)	29 (10–62)	
Diagnosis delay, years, mean±SD	6.1±7.2	
Comorbidities		
Pilonidal cyst, n (%)	26 (32.9%)	
Acne, n (%)	25 (31.6%)	
Anxiety/depression, n (%)	9/4 (11.4/5.1%)	
Arterial hypertension/Dyslipidaemia/Diabetes Mellitus, *n* (%)	6/5/4 (7.6/6.3/5.1%)	
Others[b], *n* (%)	6 (7.6%)	
Clinical characteristics		
Baseline hurley II/III, *n* (%)	10/69 (12.7/87.3%)	
Location[c]		
Axillary, *n* (%)	64 (81.0%)	
Inguinal/Genital, *n* (%)	62 (78.5%)	
Perineal/Perianal, *n* (%)	31 (39.2%)	
Gluteal, *n* (%)	23 (29.1%)	
Mammary, *n* (%)	9 (11.4%)	
Others, *n* (%)	7 (8.9%)	
Therapeutic response to adalimumab		
HiSCR	As observed	Intention-To-Treat
W16 (*n*=69), *n* (%)	63 (91.3%)	63 (79.7%)
W24 (*n*=69), *n* (%)	64 (92.8%)	64 (81.0%)
W52 (*n*=47), *n* (%)	40 (85.1%)	40 (50.6%)
After W52 [1.2–9.5 years] (*n*=34), *n* (%)	22 (64.7%)	22 (27.8%)
Follow-up		
Adverse effects[d], *n* (%)	5 (6.3%)	
Loss of follow-up	5 (6.3%)	
Discontinuation of adalimumab, *n* (%)	31 (39.2%)	
Inefficacy (1st)	5 (16.1%)	
Inefficacy (2nd)	17 (54.8%)	
Non-adherence	2 (6.5%)	
Remission	2 (6.5%)	
Adverse effects	2 (6.5%)	
Other[e]	3 (9.6%)	
Switch therapy, *n* (%)	20 (25.3%)	
Ustekinumab	7 (35.0%)	
Secukinumab	5 (25.0%)	
Infliximab	5 (25.0%)	
Upadacitinib	3 (15.0%)	

[a]Overweight: body mass index (BMI) ≥25 kg/m²; obese: BMI ≥30 kg/m². [b]Other comorbidities (*n*=6): polycystic ovary syndrome (3); anaemia (1); inflammatory bowel disease (1); psoriasis (1). [c]Location: In 1 patient, the disease may occur in more than 1 location, so the total exceeds 100%. Other locations (*n*=7): scalp (3); trunk (2); face (1); foot (1). [d]Adverse effects (*n*=5): Inverse psoriasis (2); arthritis (1); paradoxical psoriasis (1); seborrheic dermatitis (1). [e]Other causes for discontinuation adalimumab (n=3): surgery (2); pregnancy (1).
HiSCR: Hidradenitis Suppurativa Clinical Response; HS: Hidradenitis Suppurativa; SD: Standard Deviation.

W52; during long-term follow-up, 27.8% of patients maintained response (Table I).

Adalimumab was discontinued in 31 patients (39.2%), mainly due to secondary loss of efficacy (54.8%) or primary inefficacy (16.1%). Among the 17 patients who experienced secondary failure, the median time to loss of response was 16 months (range: 12–62). Twenty patients (25.3%) switched to another biologic, including ustekinumab, secukinumab, infliximab and upadacitinib. Adverse effects related to adalimumab occurred in 5 patients and were the cause of discontinuation in 2 patients (arthritis and paradoxical psoriasis) (Table I). Two patients achieved remission after 39 and 48 months of treatment, remaining disease-free for 60 months of follow-up.

Our study demonstrated high HiSCR50 response rates of adalimumab in HS, reflecting a multimodal approach rather than adalimumab alone. Concomitant therapies, including systemic antibiotics, corticosteroids and surgery, which are often restricted in clinical trials, may have enhanced treatment effectiveness. Treatment was not interrupted during disease flares, using short-term interventions. Additionally, the longer evaluation window used in our study (at W24 and W52) may have allowed more time for patients to achieve a clinically meaningful response. Therefore, our findings should be interpreted within the context of combination management strategies and individualized care. The retrospective design, lack of standardized treatment protocols and frequent use of concomitant therapies limit direct comparability with clinical trial data and make it difficult to isolate the specific contribution of adalimumab to clinical outcomes. Patient preference also played a role in continued treatment, where patients perceived subjective benefit and opted to continue therapy. Taken together, these factors may explain the sustained clinical responses observed during long-term follow-up.

Our findings also highlight the high prevalence of overweight/obesity and smoking, which are known to impact disease progression and therapeutic response negatively (1, 5). In our cohort, we did not find a significant association between obesity and smoking and therapeutic outcome. This may be related to the limited sample size and the resulting reduced statistical power of subgroup analyses. Diagnostic delay remains a critical barrier to early intervention; in our cohort, the average time between symptom onset and diagnosis exceeded 6 years, consistent with previous reports (6, 7), reinforcing the need for earlier recognition and intervention in HS.

Considering its sustained efficacy, safety and favourable cost–benefit ratio, adalimumab remains a valid and accessible option in the management of HS.

ACKNOWLEDGEMENTS

We would like to thank Claudia Camila Dias for assistance with the statistical analysis.

Data Availability: The data that support the findings of this study are available from the corresponding author upon reasonable request.

The authors have no conflicts of interest to declare.

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