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Efficacy and Safety of Vunakizumab in Psoriasis Patients with Prior IL-17 Inhibitor Failure: A Retrospective Study from China

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Introduction & Objectives:

IL-17 inhibitors, like secukinumab or ixekizumab, are effective for psoriasis, but some patients experience primary or secondary treatment failure. Vunakizumab, a novel IL-17A inhibitor, has shown promise in clinical trials. This study evaluates its efficacy and safety in patients switching from originator IL-17 inhibitors to vunakizumab.

Materials & Methods:

The inadequate response cohort included 19 psoriasis patients who initiated vunakizumab 240mg every 4 weeks (Q4W) between September 2024 and February 2025 following inadequate response to secukinumab or ixekizumab. Nine patients were categorized into the treatment-refractory cohort, defined as failure on biologics targeting ≥ 2 pathways (e.g.0, IL-17 and IL-23 or TNF- α). Baseline demographics, clinical characteristics, and outcomes were collected from medical records. Efficacy was measured by Psoriasis Area and Severity Index (PASI), Body Surface Area (BSA), and Dermatology Life Quality Index (DLQI) at week 4. Safety was assessed by incidence of treatment-related adverse events.

Results:

Patients were divided into two groups based on whether they achieve PASI 75. Except for fasting blood glucose ($P < 0.05$), there were no significant differences in the baseline characteristics in inadequate response cohort. No baseline difference was observed in treatment-refractory cohort (Table 1).

Table 1. Baseline demographics and clinical characteristics of overall and refractory cohorts.

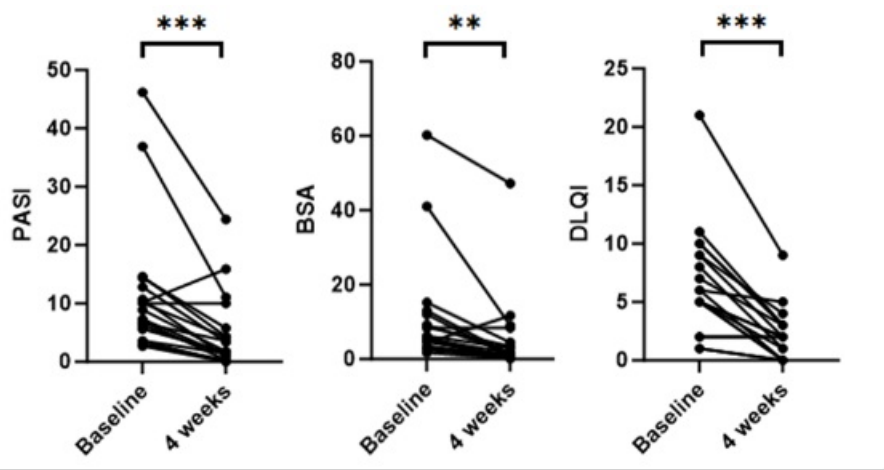
Characteristics	Inadequate Response Cohort		P value	Treatment-refractory Cohort		P value
	Fail to achieve PASI 75 (N=11)	Achieve PASI 75 (N=8)		Fail to achieve PASI 75 (N=5)	Achieve PASI 75 (N=4)	
Age (years)	44.36 $\pm$ 16.58	45.25 $\pm$ 18.89	0.915	47.40 $\pm$ 12.64	42.50 $\pm$ 16.84	0.632
Sex, n (%)			0.979			0.33
Female	4 (36.4)	2 (25.0)		4 (80.0)	1 (25.0)	
Male	7 (63.6)	6 (75.0)		1 (20.0)	3 (75.0)	
Weight (kg)	77.00 $\pm$ 20.97	68.94 $\pm$ 8.78	0.323	74.80 $\pm$ 17.54	69.75 $\pm$ 5.56	0.601
Body mass index (BMI) (kg/m ²)	28.38 $\pm$ 6.15	23.35 $\pm$ 3.18	0.05	29.00 $\pm$ 7.18	23.69 $\pm$ 1.39	0.193
Disease duration (years)	4.18 $\pm$ 2.14	14.50 $\pm$ 18.31	0.078	4.40 $\pm$ 3.05	7.25 $\pm$ 8.54	0.505
PASI	15.55 $\pm$ 13.48	6.15 $\pm$ 2.96	0.071	16.02 $\pm$ 12.15	6.97 $\pm$ 3.15	0.195
BSA	14.96 $\pm$ 18.46	6.04 $\pm$ 4.22	0.2	14.44 $\pm$ 15.46	7.55 $\pm$ 5.78	0.431
DLQI	7.27 $\pm$ 5.69	6.00 $\pm$ 2.67	0.567	8.00 $\pm$ 3.67	7.00 $\pm$ 1.83	0.637
Fasting blood glucose (mmol/L)	6.86 $\pm$ 1.68	5.18 $\pm$ 0.48	0.024	7.52 $\pm$ 1.55	5.27 $\pm$ 0.21	0.058
Triglyceride (mmol/L)	1.50 $\pm$ 0.74	1.59 $\pm$ 0.45	0.778	1.84 $\pm$ 0.25	1.87 $\pm$ 0.29	0.299
Total cholesterol (mmol/L)	4.34 $\pm$ 0.73	5.53 $\pm$ 1.69	0.092	4.54 $\pm$ 0.42	5.92 $\pm$ 2.64	0.421
HDL (mmol/L)	1.05 $\pm$ 0.16	1.27 $\pm$ 0.23	0.051	0.92 $\pm$ 0.06	1.10 $\pm$ 0.25	0.295
LDL (mmol/L)	2.83 $\pm$ 0.56	3.60 $\pm$ 1.43	0.182	3.05 $\pm$ 0.22	3.89 $\pm$ 2.21	0.548

Data are presented as mean (SD) or number (%) unless otherwise specified.

A significant improvement in PASI (95%CI 3.98-9.40; $P = 0.0007972$), BSA (95%CI 2.87-8.35; $P = 0.001477$) and DLQI (95%CI 3.50-6.50; $P = 0.0003088$) was observed in the inadequate response cohort at week 4. The PASI

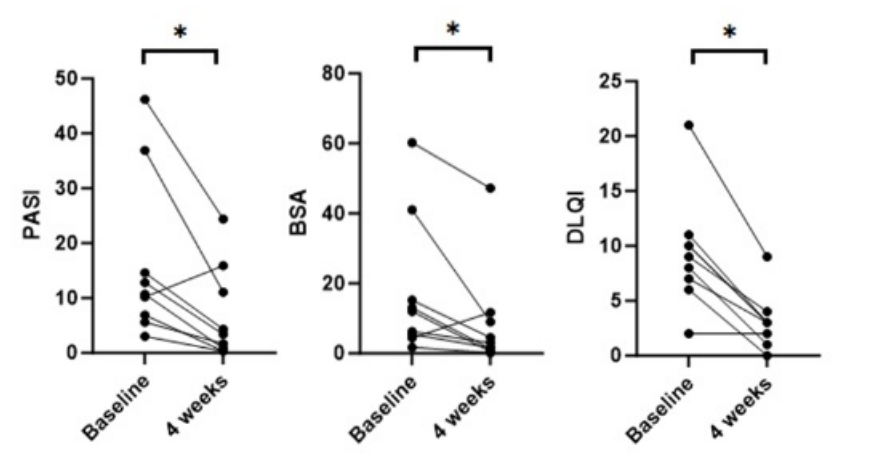
50/75/90 response rates were 79%, 42% and 26%, respectively (Figure 1).

Figure 1. PASI, BSA and Quality of life was improved after 4 weeks



A significant improvement in PASI (95%CI 2.10-17.62; $P = 0.01953$), BSA (95%CI 1.70-17.89; $P = 0.02734$) and DLQI (95%CI 5.00-9.50; $P = 0.01379$) was observed in treatment refractory patients (Figure 2).

Figure 2. PASI, BSA and Quality of life was improved in treatment refractory patients.



Conclusion:

Vunakizumab has demonstrated favorable effectiveness and safety in patients with secukinumab or ixekizumab therapy failures.

