Eblasakimab improves moderate-to-severe atopic dermatitis symptoms across anatomical regions in a Phase 1 study

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Objective

To investigate the reductions in EASI score by body region with eblasakimab treatment in post hoc analyses of the proof-of-concept Phase 1b trial of adults with moderate-to-severe atopic dermatitis (AD) (NCT04090229)

Background

- The presentation of atopic dermatitis (AD) varies by anatomical region, having differing impact on quality of life and treatment options. Quality of life is most affected in patients with lesions in visible areas, including head/neck, hands, and upper limbs.[1]
- Eblasakimab, a fully human monoclonal antibody binds IL-13 receptor α1 subunit (IL-13Rα1) with high affinity and blocks the signaling of interleukin (IL)-4 and IL-13 through the type-2 receptor (**Figure 1**).

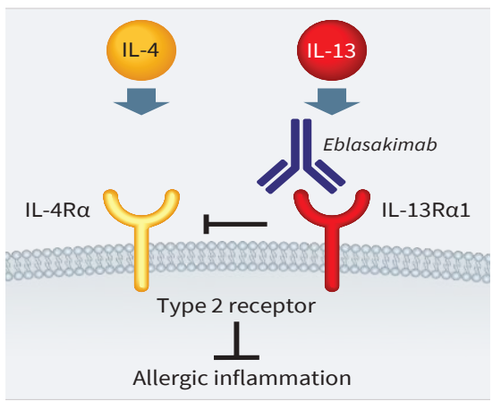


Figure 1. Eblasakimab binds to and blocks IL-13Ra1, one of the Type 2 receptor components, thereby preventing signaling through both IL-4 and IL-13, key drivers of allergic inflammation in atopic dermatitis.

- In the eblasakimab multiple ascending dose trial in adults with moderate-to-severe AD, patients were randomized to either 200, 400 or 600 mg eblasakimab or placebo subcutaneously once weekly for 8 weeks.

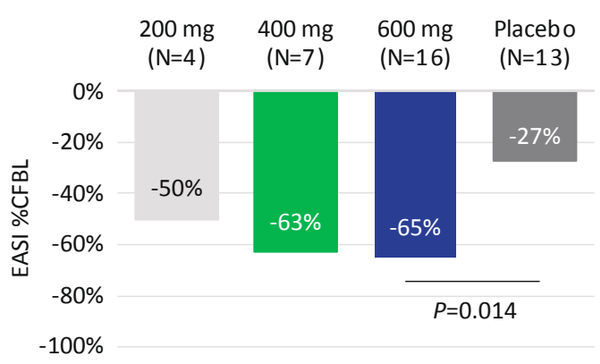
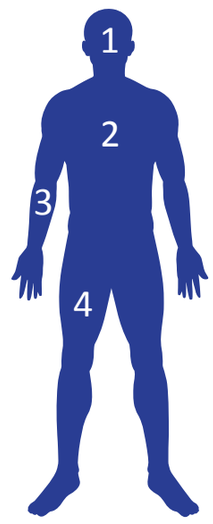


Figure 2. EASI Change from baseline (%) at week 8 (mean) for Primary Analysis

- In the primary analysis, eblasakimab demonstrated reductions in AD severity and extent, without plateauing, based on EASI total scores (%CFBL in EASI score at week 8 for eblasakimab 600 mg vs. placebo: -65% vs. -27%, *P*=0.014 (**Figure 2**), and other rating scales.[2]

Methods

- *Post hoc* analyses on predetermined body regions were conducted for patients with head and neck (H&N) EASI ≥ 1.5 at baseline.
- EASI scores were assessed across body regions.



1	Head and Neck
2	Trunk
3	Upper Extremities
4	Lower Extremities

- Week 8 assessments included:
  - Mean percentage change from baseline in total EASI (composite) score
  - Mean percentage change from baseline in each body region EASI
  - Percentage of patients achieving ≥ 50/75/90% reduction in EASI score from baseline in each body region

Baseline EASI Region Scores

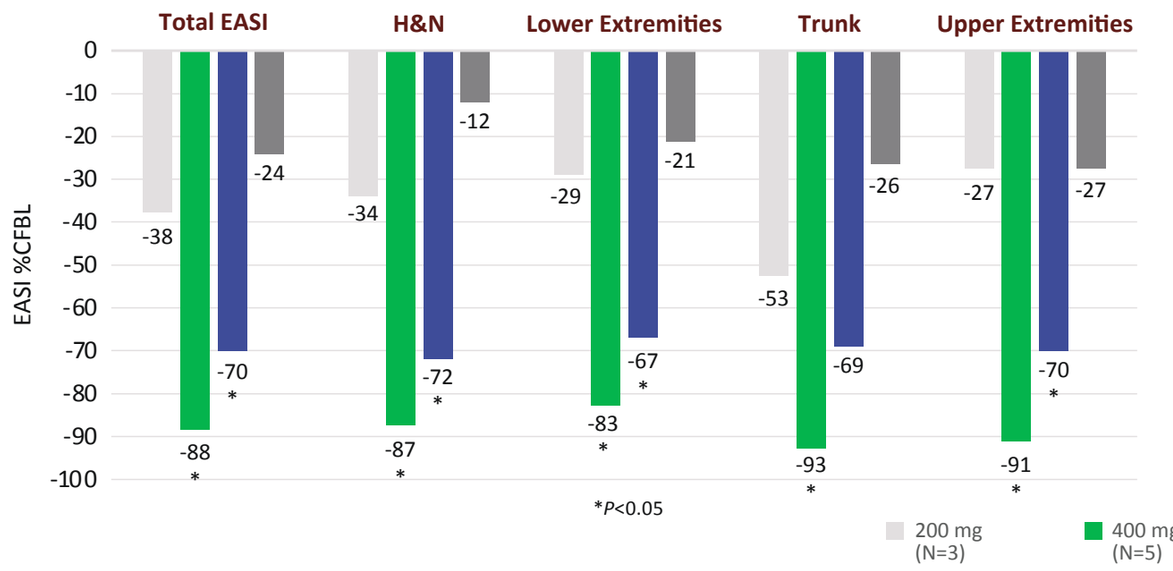
	All eblasakimab (N=20)	Placebo (N=9)
Total	32.9	33.9
Head/neck	3.2	3.8
Lower extremities	13.1	13.7
Trunk	10.2	9.7
Upper extremities	6.4	6.8

Limitations

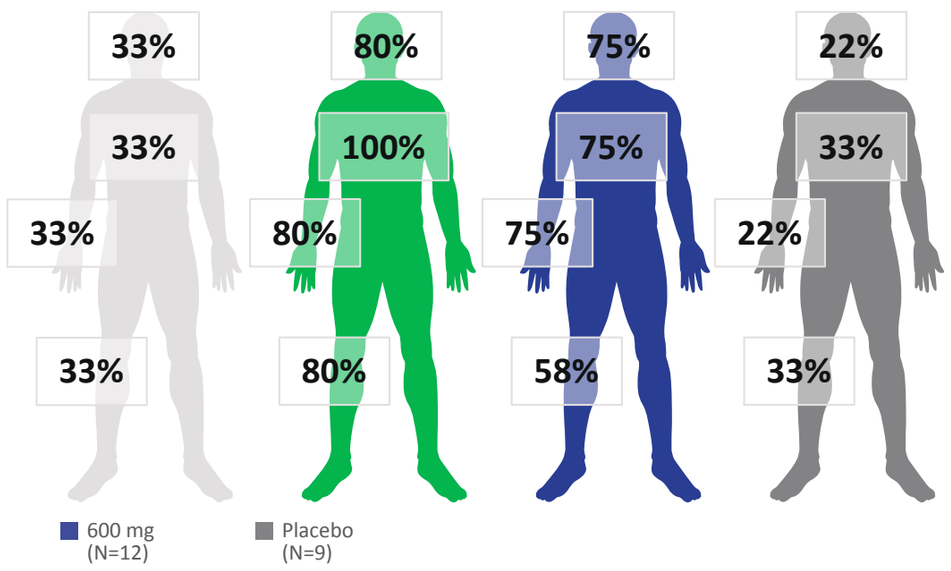
- Analysis included subset of patients with H&N scores ≥ 1.5 from a small proof-of-concept Phase 1 trial with short treatment duration.
- Study was not designed or powered to assess regional EASI scores.

Results

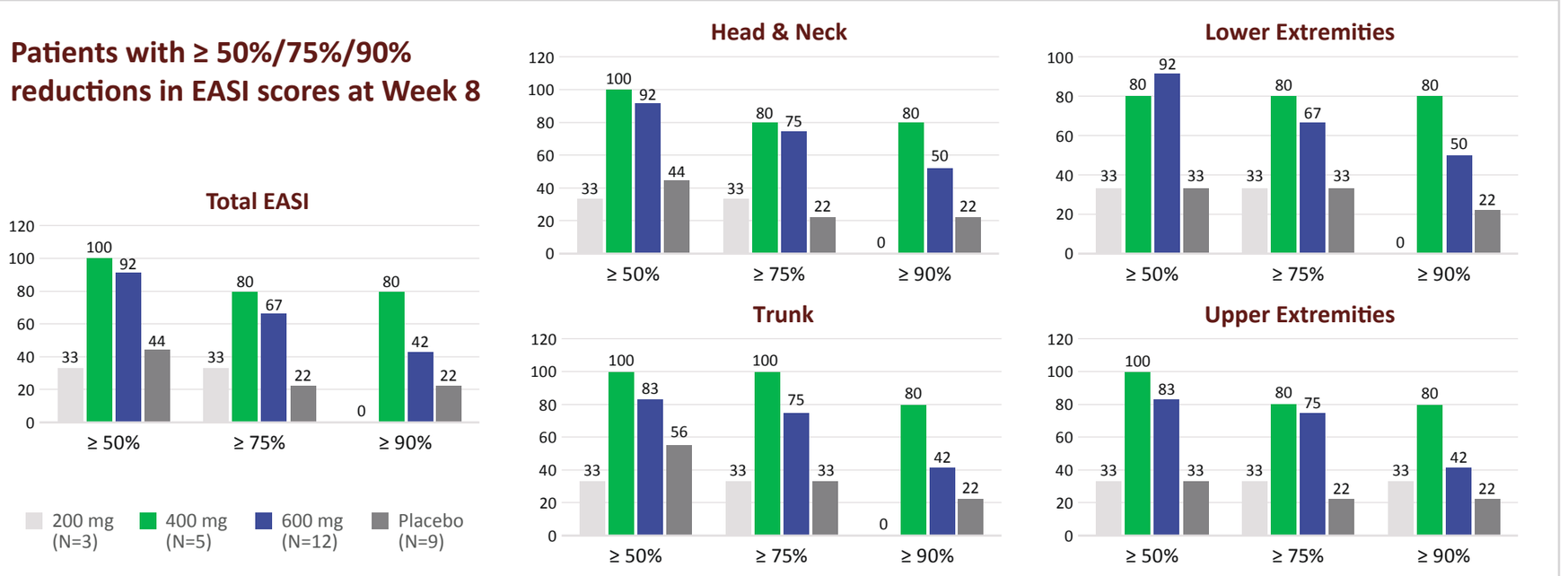
Improvement in EASI Score at Week 8 (H&N ≥ 1.5 at baseline)



EASI 75 at Week 8 (H&N ≥ 1.5 at baseline)



Patients with ≥ 50%/75%/90% reductions in EASI scores at Week 8



Improvements in EASI %CFBL were observed at week 8 vs placebo across the 4 anatomical regions with eblasakimab treatment, significantly at the 400 and 600 mg doses. Proportions of patients achieving EASI 50, 75 and 90 with eblasakimab treatment vs placebo also improved.

Discussion

Data from this 8-week study suggest eblasakimab is effective for difficult-to-treat anatomical areas in AD. Further data will be available following the completion of a Phase 2b study (NCT05158023).

Abbreviations: %CFBL, percent change from baseline; EASI, Eczema Area and Severity Index; IL-4, interleukin 4; IL-13, interleukin 13; IL-4Rα, interleukin-4 receptor α; IL-13Rα1, interleukin-13 receptor α1 subunit.

References: 1. Lio *et al. J Drugs Dermatol.* 2020;19(10):943–8. **2.** Veverka *et al. Poster* P0343, EADV 2022. **Sponsor:** This study was sponsored by ASLAN Pharmaceuticals Pte Ltd.