EA DV CONGRESS
BERLIN 11-14 OCTOBER 2023
EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

Abstract N°: 3484

Safety and Efficacy of LY3041658, a Novel Septa-Specific Monoclonal Antibody to CXCR1 and CXCR2 Ligands, in a Phase 2 Study in Hidradenitis Suppurativa

Seth Forman[1], Dipak Patel[2], Alexa B. Kimball[3], Tarannum Jaleel[4], Vivian Laquer[5], Tongrong Wang[2], Ying Zhang[2], Lei Shen[2], Paul Klekotka[2], Ajay Nirula[2]

[1]ForCare Clinical Research, Tampa, Florida, United States, [2]Eli Lilly and Company, Indianapolis, Indiana, , United States, [3]Beth Israel Deaconess Medical Center and Harvard Medical School, Department of Dermatology, Boston, Massachusetts, United States, [4]Duke University School of Medicine, Department of Dermatology, Durham, North Carolina, United States, [5]First OC Dermatology Research Inc., Fountain Valley, California, United States

Introduction & Objectives:

CXCR1/CXCR2 are chemokine receptors involved in neutrophil migration to sites of inflammation. LY3041658 (LY) is a humanized monoclonal antibody that binds to an epitope shared by CXCR1/CXCR2's seven human ligands. LY inhibits neutrophil chemotaxis but not effector functions *in vitro*.

We present results from a Phase 2 study (NCT04493502) in adults with moderate-to-severe hidradenitis suppurativa (HS).

Materials & Methods:

Patients (n=67) were randomized 2:1 to receive LY 600 mg or placebo (PBO) intravenous every 2 weeks (W) for 16W, and then all patients received LY 600 mg every 2W for additional 20W. The primary efficacy endpoint was the percentage of patients with Hidradenitis Suppurativa Clinical Response (HiSCR50) at W16. A prespecified analysis augmented by patient-matched PBO data from historical Phase 3 HS studies was implemented on the primary endpoint.

Results:

The W16 HiSCR50s were 65.6% (LY), 32.3% (augmented PBO), and 41.4% (non-augmented PBO). The Bayesian posterior probability of at least 30% difference between LY and augmented PBO was 61.9%. The percentage reduction from baseline in total abscess and inflammatory nodule count at W16 was 52.1% (LY) and 14.5% (PBO) (p=0.14). Of the patients randomized to LY that achieved HiSCR50 at W16, 81.8% maintained HiSCR50 at W36. Most treatment-emergent adverse events (TEAEs) were mild or moderate in the first 16W: 53.3% (LY) and 40.9% (PBO). Infections were the most common TEAE category: 13.3% (LY) and 18.2% (PBO).

Conclusion:

Overall, neutralizing seven distinct CXCR1/CXCR2 ligands with a septa-specific monoclonal antibody is a promising therapeutic strategy for HS and potentially other neutrophil-predominant disorders.

Previously presented at American Academy of Dermatology - 81st Annual Meeting 2023