Long-Term Efficacy and Safety of Dupilumab in Adolescents With Atopic Dermatitis: Results From an Open-Label Extension Trial (LIBERTY AD PED-OLE)

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BACKGROUND

- The prevalence of AD among adolescents worldwide is estimated at 14.8%.1
- In the USA, 4.5%, 3.9%, and 0.8% of adolescents report mild/moderate/severe AD respectively.2
- Until recently, adolescents with AD inadequately controlled by topical therapies had limited treatment options, with the use of systemic corticosteroids strongly discouraged.3
- Dupilumab is a fully human monoclonal antibody that blocks the shared receptor component for interleukin (IL)-4 and IL-13, inhibiting signaling of both IL-4 and IL-13, which are key drivers of type 2-mediated inflammation in multiple diseases.4,5
- In the randomized, double-blinded, placebo-controlled, phase 3 LIBERTY AD ADOL study in adolescent patients (aged ≥ 12 to < 18 years) with moderate-to-severe AD, 16-week treatment with dupilumab resulted in significant improvement in AD signs, symptoms, and quality of life compared with placebo, with an acceptable safety profile.6

METHODS

Study design
- This is an ongoing, OLE study (LIBERTY AD PED-OLE, NCT02612454) in patients aged ≥ 6 months to < 18 years with moderate-to-severe AD who had previously participated in dupilumab studies.
- Here, we present results for the age cohort of 12 to < 18 years of the study, with a data cutoff date of December 15, 2018.
- Previous studies (called parent studies from this point onwards) for this age cohort included the single-dose phase 2a study AD-1412 (NCT02407756),7 LIBERTY AD ADOL (NCT03054428),8 and the phase 1b AD-1607 study (NCT03050151).9
- Main inclusion criteria were participation in a previous study, with no imputation for missing values (all observed values).
- Patients from the placebo arm of the AD ADOL trial could participate in the OLE study.

Treatment
- Per the original protocol of the OLE study, the dose regimen was 2 mg/kg or 4 mg/kg every week.
- Once the pharmacokinetic data were available, the dosing regimen was changed from weight-based dosing (2 mg/kg or 4 mg/kg) to a fixed-dose regimen of 300 mg every 4 weeks (Protocol Amendment 1); the dose was up-titrated at the discretion of the investigators in case of inadequate clinical response at Week 16 as follows:
  - Patients weighing < 60 kg: 200 mg every 2 weeks (q2w)
  - Patients weighing ≥ 60 kg: 300 mg (q2w)

RESULTS

Efficacy outcomes
- At the time of the data cutoff of this analysis, 299 OLE patients were included in the analysis.
  - Of these, 36 patients previously participated in the AD-1412 study, 225 in the AD ADOL trial, and 38 in the AD-1607 trial.
  - At the cutoff date, 241 (80.6%) patients were still enrolled in the study, 12 (4%) patients had completed the study, and 46 (15.4%) had discontinued the study prematurely.
  - The most common reasons for study discontinuation were withdrawal by patient (18 [6.0%], lack of efficacy (11 [3.7%]), and patient turning 18 years of age (11 [3.7%]).
  - 105 (35.1%) patients reached the Week 52 visit.
- Demographics and characteristics both at the parent study baseline (PSBL) and current study baseline (BL) for these patients are shown in Table 1.

Safety outcomes
- Table 2. Safety assessment.

CONCLUSION
- Data from this OLE trial of dupilumab support the long-term efficacy and safety of dupilumab in adolescents with AD.