DUPILUMAB EFFICACY IS NOT AFFECTED BY PRIOR ASTHMA EXACERBATION STATUS IN LIBERTY ASTHMA TRAVERSE OPEN-LABEL EXTENSION STUDY

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Rationale

Asthma exacerbations are associated with lung function decline and risk of future exacerbations. Dupilumab blocks IL-4/-13, key and central drivers of type 2 inflammation. We investigated the relationship between prior exacerbations and lung function in patients with moderate-to-severe type 2 asthma (blood eosinophils ≥150cells/µL or FeNO ≥25ppb at parent study baseline [PSBL] QUEST [NCT02414854]) enrolled in TRAVERSE (NCT02134028).

Methods

Dupilumab-treated patients from QUEST continued in TRAVERSE up to 96 weeks (designated dupilumab/dupilumab); placebo-treated patients from QUEST initiated dupilumab in TRAVERSE (designated placebo/dupilumab). Endpoints: annualized severe exacerbation rates (AER), time to first exacerbation, absolute pre-bronchodilator percent-predicted (pp) FEV1 over time, in QUEST non-exacerbators (0 exacerbations) and exacerbators (≥1 exacerbations).

Results

Dupilumab sustained lung function improvements observed in QUEST during TRAVERSE. Mean (SD) ppFEV1 at TRAVERSE Week 0 was 65.0 (17.3) and 73.3 (15.8) in dupilumab/dupilumab, and 60.4 (16.0) and 68.0 (16.0) in placebo/dupilumab, for exacerbators and non-exacerbators, respectively. At week 96, dupilumab further improved ppFEV1 to 67.2 (17.1) and 72.8 (16.2) in dupilumab/dupilumab, and 70.8 (15.2) and 71.4 (17.3) in placebo/dupilumab. In QUEST, dupilumab reduced AER. During TRAVERSE, Dupilumab reduced AER in exacerbators (0.78 and 0.56 in dupilumab/dupilumab and placebo/dupilumab, respectively), and maintained low AER (0.11 and 0.17, respectively) in non-exacerbators. Risk of experiencing a first exacerbation was lower for non-exacerbators than exacerbators, but similar between dupilumab/dupilumab and placebo/dupilumab within both patient groups (figure 1).

Conclusions

Dupilumab significantly reduced AER, improved/sustained improvements in lung function in placebo/dupilumab patients, and dupilumab/dupilumab patients, regardless of prior exacerbation status, up to three years.

Please refer to page A287 for declarations of interest related to this abstract.