Dupilumab Efficacy in GINA-Defined Difficult-to-Treat Type 2 Asthma Patients

Klaus F. Rabo1,2, J. Mark FitzGerald3, Eric D. Bateman1,4, Mario Castro5, Ian D. Pavord2, Jorge F. Maspero7, William W. Busse8, Megan S. Rice10, Yamo Deniz11, Paul Rowe12, Naimish Patel12, Nikhil Amin12, Marcella Ruddy1, Neil M. Graham12, Ariela Teper12

1LungClnic Grosshansdorf (member of the German Center for Lung Research (DZL)), Grosshansdorf, Germany; 2Christiaan-Albrechts-University of Kiel (member of the German Center for Lung Research (DZL)), Kiel, Germany; 3University of British Columbia, Vancouver, BC, Canada; 4University of Cape Town Lung Institute, Cape Town, South Africa; 5University of Cape Town Lung Institute, Cape Town, South Africa; 6Washington University School of Medicine, St. Louis, MO, USA; 7NIHR Oxford Biomedical Research Centre, University of Oxford, Oxford, UK; 8Regeneron CIDEA, Buenos Aires, Argentina; 9University of Wisconsin School of Medicine and Public Health, Madison, WI, USA; 10Sanofi, Cambridge, MA, USA; 11Regeneron Pharmaceuticals, Inc., Tarrytown, NY, USA; 12Sanofi, Bridgewater, NJ, USA

BACKGROUND

• Dupilumab is a fully human VelocImmune®-derived monoclonal antibody that blocks the shared receptor component for interleukin (IL)-4 and IL-13, which are key and central drivers of type 2 inflammation in multiple diseases1–3

METHODS

Study Design

• The phase 2b phase 2b and phase 3 LIBERTY ASThma QUEST studies, add-on dupilumab 200 mg and 300 mg every 2 weeks (q2w) vs placebo significantly reduced annualized rates of severe exacerbations, improved pre-bronchodilator (BD) forced expiratory volume in 1 second (FEV1), and improved quality of life measures in patients with uncontrolled, moderate-to-severe asthma4–6

RESULTS

• This post hoc analysis of the phase 2b and phase 3 LIBERTY ASThma QUEST studies, add-on dupilumab 200 mg and 300 mg every 2 weeks (q2w) vs placebo significantly reduced annualized rates of severe exacerbations, improved pre-bronchodilator (BD) forced expiratory volume in 1 second (FEV1), and improved quality of life measures in patients with uncontrolled, moderate-to-severe asthma4–6

RESULTS (cont.)

• Overall safety population

  • In the phase 2b and phase 3 QUEST studies, the incidence of TEAs was similar across treatment groups, the most common treatment-emergent adverse events (TEAs) reported in dupilumab-exposed placebo groups, respectively, were:
    • Upper respiratory tract infections (16% vs 14%)
    • Injection-site reactions (13% vs 14%)
    • Bronchitis (11% vs 14%)
    • Breakthrough asthma (11% vs 14%)

CONCLUSIONS

• In subgroups of GINA-defined, uncontrolled, moderate-to-severe asthma patients with baseline blood eosinophils > 150 µL/L, or baseline FeNO > 20 ppb:
  • Dupilumab significantly reduced severe exacerbations during the 24-week treatment period in phase 2b and during the 52-week treatment period in phase 3 QUEST
  • Dupilumab significantly improved lung function by Week 12 and for each respective treatment period

METHODS (cont.)

• Study assessments
  • Annualized rate of severe exacerbations during the respective treatment periods and total squares (LS mean change from baseline in (LS) at Week 24), and 24 (phase 2b) or 52 (phase 3 QUEST) were assessed in patients with uncontrolled, moderate-to-severe asthma stratified by the following:
    • Baseline blood eosinophils < 150 µL/L, or blood eosinophils ≥ 150 µL/L, or baseline FeNO ≥ 20 ppb

PRESENTED at the 2020 Annual Meeting of the American Academy of Allergy, Asthma and Immunology (AAAAI), Philadelphia, PA, USA; March 13–16, 2020

REFERENCES


ACKNOWLEDGEMENTS

• Project support from Sanofi and Regeneron Pharmaceuticals, Inc. Clinical trials performed at: 1) Fallopio Allergy Center, Hamburg, Germany; 2) Klinikum Grosshansdorf, Germany; 3) Nostra Apotheke, Aachen, Germany; 4) North York General Hospital, Toronto, ON, Canada; 5) Sanofi, Cambridge, MA, USA; 6) Sanofi, Bridgewater, NJ, USA; 7) Virginia Commonwealth University, Richmond, VA, USA; 8) Loyola University Medical Center, Maywood, IL, USA; 9) University of California, San Francisco, CA, USA; 10) Sanofi, Cambridge, MA, USA; 11) Sanofi, Bridgewater, NJ, USA; 12) Sanofi, Bridgewater, NJ, USA

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