Dutch Healthcare Insurance companies, Consultant for: Boehringer Ingelheim, Amgen, Employee of: Sint Maartenskliniek the Netherlands
DOI: 10.1136/annrheumdis-2018-eular.1376

THU0216 SERUM CXCL16 LEVELS IN RF+/ACPA+RHEUMATOID ARTHRITIS PATIENTS BEFORE AND AFTER TREATMENT WITH DMARDS

R. Ramamoorthy, T.N. Tamilselvam, B. Kumar. *Institute of Rheumatology, Madras Medical College, Chennai, India*

Background: Rheumatoid arthritis (RA) is characterised by profound mononuclear cell (MNC) recruitment into synovial tissue (ST). Studies have shown that chemokine CXCL16 is a premier MNC recruiter in RA. CXCL16 contributes to chronic inflammation, since it is highly expressed in RA synovial fluid (SF), is a potent chemoattractant for mononuclear cells (MNCs) *in vitro*, and is chemotactic for peripheral blood mononuclear cells (PBMCs) to RA ST *in vivo*. Hence treatment for RA will reflect change in serum CXCL16 levels

Objectives: The aim of this study was to analyse the change of serum chemokine level of CXCL16, in patients with either RF +or ACPA +rheumatoid arthritis (RA), by DMARDs treatment.

Methods: This was a prospective interventional study done in a tertiary care centre. 31 patients with RA were recruited for a period of 12 months. Serum CXCL16 levels were assayed in them along with other baseline investigations. The patients were treated with DMARDs. CXCL16 levels post treatment were measured after 6 months. For comparison another group of age and sex matched controls was taken (n=18) and their serum CXCL16 was also recorded. The serum CXCL16 levels were correlated with disease activity.

Results: After treatment with conventional DMARDs 26 patients showed lowering of mean serum CXCL16 levels from 56.07 pg/ml to 21.79 pg/ml (62% reduction) after 6 months. The patients who showed inadequate response to conventional DMARD treatment (n=5) underwent therapy with biological DMARDs (TNF- α blocker) which reduced their CXCL16 levels from 63.81 pg/ml to 12.36 pg/ml (80.6% reduction) in subsequent 6 months. There was a corresponding improvement in the disease activity of RA. Lowering of CXCL16 was found to correlate positively with improvement of symptoms and lowering of disease activity

Conclusions: DMARDs treatment significantly lowered the serum levels of CXCL16 in patients with RA. CXCL16 is one of the crucial chemokines regulated by DMARDs treatment

REFERENCE:

- [1] Ruth JH, Haas CS, Park CC, et al. CXCL16 Mediated cell recruitment to Rheumatoid Arthritis Synovial Tissue and Murine Lymph Nodes is dependent upon the MAPK pathway. *Arthritis and Rheumatism* 2006;765-778. doi:10.1002/art.21662

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.2178

THU0217 SIMILAR EFFICACY AND SAFETY OF SARILUMAB 150 MG OR 200 MG Q2W REGARDLESS OF PRIMARY (1°) OR SECONDARY (2°) FAILURE WITH TNF INHIBITORS

R. Fleischmann¹, A. Spindler², A. Kivitz³, D. Ching⁴, E.K. Mangan⁵, T. Kimura⁵, M. Iglesias-Rodriguez⁶, G.R. Burmester⁷. ¹*Metrex Clinical Research Center, University of Texas Southwestern Medical Center, Dallas, TX, USA;* ²*Universidad Nacional de Tucumán, Tucuman, Argentina;* ³*Altoona Center for Clinical Research, Duncansville, PA, USA;* ⁴*Timaru Medical Specialists Ltd, Timaru, New Zealand;* ⁵*Regeneron Pharmaceuticals, Inc, Tarrytown, NY;* ⁶*Sanofi Genzyme, Bridgewater, NJ, USA;* ⁷*Free University and Humboldt University Berlin, Berlin, Germany*

Background: Sarilumab (150 or 200 mg subcutaneously [SC] every 2 wks [q2w]) +csDMARDs demonstrated efficacy in adults with moderate-to-severely active

rheumatoid arthritis (RA) with intolerance or inadequate response to prior TNFi treatment in TARGET (NCT01709578). Patients with an initial refractory response (1° failure) to TNFi may respond differently to subsequent treatment vs those who initially respond but lose TNFi effectiveness (2° failure).

Objectives: This post hoc analysis examined efficacy and safety of sarilumab +csDMARDs in patients who had previously demonstrated 1° vs 2° TNFi failure.

Methods: TNFi failure (1° vs 2°) was investigator-determined on enrolment to TARGET. Patients who experienced 1° or 2° failure were randomised to placebo (pbo; n=75 and n=99), sarilumab 150 mg (n=72; n=91), or sarilumab 200 mg q2w (n=64; n=103), respectively. Disease activity, physical function (HAQ-DI), and safety were assessed at Wk 24.

Results: By Wk 24, ACR20/50/70 response rates and improvements in LS mean HAQ-DI were similar in both sarilumab dose groups and superior to pbo, irrespective of 1° vs 2° TNFi failure (table 1). Odds ratios for the benefit of sarilumab over pbo according to ACR response rates, HAQ-DI, DAS28-CRP, CDAI and SDAI (figure 1) showed no differences between patients with 1° vs 2° failures. No significant treatment by subgroup (1° vs 2° failure) interactions were observed. In the 1° failure group, treatment emergent adverse events (TEAEs; table 1) occurred in 59.7%, 65.6% vs 45.3% (sarilumab 150, 200 mg vs pbo, respectively) of patients; and in 73.6% and 63.1% vs 52.5% with sarilumab 150, 200 mg vs pbo, respectively, in the 2° failure group. There was only one TEAE leading to death (pbo group) and one case each of venous thrombosis (200 mg sarilumab q2w, 2°) and pulmonary embolism (150 mg sarilumab q2w, 2°).

Conclusions: Key efficacy and safety measures were similar in patients treated with sarilumab +csDMARDs, regardless of previous 1° or 2° failure with TNFis.

Acknowledgements: Study funding and medical writing support (Vicki Cronin, Adelphi) provided by Sanofi and Regeneron Pharmaceuticals, Inc.

Disclosure of Interest: R. Fleischmann Grant/research support from: AbbVie, Amgen, AstraZeneca, Bristol-Myers Squibb, Celgene, EMD-Serono, Eli Lilly, Merck, Novartis, Pfizer, Roche, Sanofi-Genzyme, UCB, Consultant for: AbbVie, ACEA, Amgen, Bristol-Myers Squibb, GSK, Eli Lilly, Novartis, Pfizer, Sanofi-Genzyme, UCB, A. Spindler: None declared, A. Kivitz Shareholder of: Novartis, Consultant for: AbbVie, Janssen, Pfizer, UCB, Genzyme, Sanofi, Regeneron, Boehringer Ingelheim, Sun Pharma, Speakers bureau: Celgene, Genentech, Merck, Novartis, Pfizer, Genzyme, Sanofi, Regeneron, Horizon, D. Ching Grant/research support from: Sanofi, Lilly, Celgene, Pfizer, Galapagos, Gilead and AbbVie, Consultant for: AbbVie, E. Mangan Shareholder of: Regeneron, Pfizer, Employee of: Regeneron, T. Kimura Shareholder of: Regeneron, Employee of: Regeneron, M. Iglesias-Rodriguez Employee of: Sanofi, G. Burmester Grant/research support from: AbbVie, Pfizer, UCB, Roche, Consultant for: AbbVie, Lilly, Merck Sharpe and Dohme, Pfizer, Sanofi, Roche, UCB, Speakers bureau: AbbVie, Lilly, Merck Sharpe and Dohme, Pfizer, Sanofi, Roche, UCB

DOI: 10.1136/annrheumdis-2018-eular.1374