healthy donors: 0.0015(0.001–0.003) vs 0.003(0.001–0.007) and 0.01(0.005–0.02) vs 0.02(0.01–0.04), respectively, $p < 0.01$ for both cases. At baseline, a significant correlation was found in RA pts between absolute counts of memory B cells (CD19+CD27+) and CRP ($r = 0.50$, $p < 0.05$); the percentage and absolute counts of plasmablasts (CD19+CD38+++CD27+IgD-CD20-) and RF ($r = 0.41$ and $r = 0.52$, $p < 0.05$). After 12 mo of TCZ therapy, 54% of pts were categorized as good responders, 46% of pts – as moderate responders according to the EULAR response criteria. Reductions in the percentages and absolute counts of plasmablasts (CD19+CD38+++CD27+IgD-CD20-) were documented after 12 mo of TCZ therapy: 0.15%(0.1–0.3) vs 0.1%(0.01–0.1) and 0.0003(0.00007–0.004) vs 0.0001(0–0.0003), respectively, $p < 0.05$. The median percentages/absolute counts of switched memory B cells (CD19+CD27+IgD-) were 6.8%(3.6–11.6)/0.01(0.005–0.02) at baseline; and 3.1%(1.1–4.2)/0.003(0.002–0.006) after 12 mo of TCZ therapy, $p > 0.05$. After 12 mo of TCZ therapy, the median percentages and absolute counts of memory B cells (CD19+CD27+) and switched memory B cells (CD19+CD27+IgD-) became lower in RA pts than in the controls: 1.0%(0.7–1.2) vs 2.2%(1.1–3.0); 0.001(0.006–0.003) vs 0.003(0.001–0.007); 3.1%(1.1–4.2) vs 12.8%(9.3–17.0); 0.003(0.002–0.006) vs 0.02(0.01–0.04), respectively, $p < 0.05$, respectively, for all cases. Other B-cell subpopulations did not changed after 12 mo of TCZ therapy as compared to baseline values.

Conclusions: Immunophenotyping in pts with active RA showed the decrease in the absolute counts of memory B cells (CD19+CD27+), switched memory B cells (CD19+CD27+IgD-) as compared to healthy subjects. Positive correlation between the counts of memory B cells and plasmablasts and values of laboratory indicators of RA (CRP, RF) suggests that B-lymphocytes may be involved in RA pathogenesis. The reduction in the levels of plasmablasts after 12 mo of TCZ therapy was observed.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.4566

SAT0180 TWO-YEAR CONSOLIDATED SAFETY DATA FOR ABP 501 IN PATIENTS WITH MODERATE TO SEVERE RHEUMATOID ARTHRITIS

E. Krishnan¹, N. Zhang¹, H. Wang¹. ¹Biosimilars Development, Amgen Inc., Thousand Oaks, United States

Background: Biosimilars are expected to have similar long-term safety profiles as originator products.

Objectives: To describe the consolidated, 2-year safety data on ABP 501, an approved biosimilar to adalimumab.

Methods: We combined individual patient data from a 26-week randomized controlled head-to-head study (parent study) comparing ABP 501 with adalimumab (NCT01970475) and its 72-week open-label extension (OLE) study (NCT02114931) in which all patients received only ABP 501. Safety data were reported by exposure-adjusted incidence rate as the number of subjects with the specified adverse events (AEs) per 100 person-years. AEs from the parent and OLE studies were summarized; for each category, patients were included only once based on the 1st event in that AE category. All comparisons were performed descriptively.

Results: In the parent study, 264 patients received ABP 501 and 262 patients received adalimumab reference product (RP). Of these, 229 in the ABP 501 arm and 237 in the RP arm entered and were treated in the open-label extension study. The exposure-adjusted incidence rate for treatment-emergent AEs by treatment group are shown in the Table.

Adverse Event Category	ABP 501/ABP 501 (N = 264)	Adalimumab RP/ABP 501 (N = 262)
Exposure-adjusted incidence rate n/E (r)		
Any AE	187/187.6 (99.7)	197/192.2 (102.5)
Any grade ≥ 3 AE	32/405.2 (7.9)	30/410.6 (7.3)
Any treatment-related AE	72/345.3 (20.9)	79/344.3 (22.9)
Any grade ≥ 3 treatment-related AE	6/427.2 (1.4)	5/433.6 (1.2)
Any serious AE	34/407.6 (8.3)	32/410.1 (7.8)
Any treatment-related serious AE	6/427.9 (1.4)	2/434.3 (0.5)
Any events of interest	141/261.5 (53.9)	154/254.7 (60.5)
Infections and infestations	125/289.9 (43.1)	130/287.4 (45.2)
Liver enzyme elevations	25/401.4 (6.2)	20/415.6 (4.8)
Hypersensitivity	19/407.7 (4.7)	22/412.2 (5.3)
Injection site reactions	6/417.9 (1.4)	13/418.3 (3.1)
Hematological reactions	6/421.8 (1.4)	7/426.1 (1.6)
Malignancies	6/423.9 (1.4)	3/433.6 (0.7)
Heart failure	1/428.4 (0.2)	2/435.6 (0.5)

n = number of subjects with the specified AE; E = total subjects exposure-time (patient-years); r = exposure-adjusted incidence rate per 100 patient-years ($100 \times n/E$).

Conclusions: Over the 2-year observation period, there were no meaningful differences in AEs between adalimumab reference product and ABP 501.

Disclosure of Interest: E. Krishnan Shareholder of: Amgen Inc., Employee of: Amgen Inc., N. Zhang Shareholder of: Amgen Inc., Employee of: Amgen Inc., H. Wang Shareholder of: Amgen Inc., Employee of: Amgen Inc.

DOI: 10.1136/annrheumdis-2018-eular.6746

SAT0181 EFFECT OF ANTI-IL-6 THERAPY ON SERUM LEVELS OF METABOLIC SYNDROME-RELATED BIOMARKERS IN RHEUMATOID ARTHRITIS PATIENTS

F. Genre¹, S. Remuzgo-Martínez¹, R. López-Mejías¹, V. Mijares¹, J. Calvo-Alen², R. Blanco^{1,3}, J. Llorca⁴, S. Castañeda⁵, M. Á. González-Gay^{1,3,6,7}. ¹Epidemiology, Genetics and Atherosclerosis Research Group on Systemic Inflammatory Diseases, IDIVAL, Santander, ²Rheumatology Department, Hospital Universitario Araba, Vitoria, ³Rheumatology Department, Hospital Universitario Marqués de Valdecilla, ⁴Epidemiology and Computational Biology Department, School of Medicine, University of Cantabria, and CIBER Epidemiología y Salud Pública (CIBERESP), IDIVAL, Santander, ⁵Rheumatology Department, Hospital Universitario La Princesa, IIS-IPrincesa, Madrid, ⁶School of Medicine, University of Cantabria, Santander, Spain, ⁷Cardiovascular Pathophysiology and Genomics Research Unit, School of Physiology, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa

Background: Metabolic syndrome (MeS) is a pathologic state that encompasses metabolic anomalies such as hyperglycemia, dyslipidemia, obesity and hypertension and that, apart from being a cardiovascular risk factor, it has been associated with chronic inflammatory diseases such as rheumatoid arthritis (RA)^{1,2}. Ghrelin and retinol binding protein-4 (RBP-4) are two biomarkers associated with MeS, and are also linked to different cardiometabolic risk factors. In this regard, it is known that ghrelin exerts an anti-inflammatory role, while RBP-4 has a pro-inflammatory role².

Objectives: Since a beneficial effect on endothelial function has been reported for anti-IL-6 therapy³, we aimed to evaluate the effect of a single infusion of anti-IL-6 on the serum levels of ghrelin and RBP-4 in patients with RA.

Methods: Ghrelin and RBP-4 levels were measured in serum samples from 50 Spanish individuals with RA that fulfilled the 2010 classification criteria⁴, and that were under treatment with the anti-IL-6 monoclonal antibody Tocilizumab. Patients with diabetes mellitus or plasma glucose levels >110 mg/dL were excluded. Blood samples were taken in the fasting state, immediately before (time 0) and after (time 60 minutes) Tocilizumab infusion.

Results: A significant increase in serum levels of ghrelin was observed after a single infusion of Tocilizumab (mean $\pm$ standard deviation: 72.99 $\pm$ 58.43 pg/mL versus 134.02 $\pm$ 225.93 pg/mL, before and after Tocilizumab infusion, $p = 0.04$). Serum levels of RBP-4 were not affected by the administration of Tocilizumab (mean $\pm$ standard deviation: 23.48 $\pm$ 13.99 μ g/mL versus 20.90 $\pm$ 15.54 μ g/mL, before and after Tocilizumab infusion, $p = 0.42$).

Conclusions: Our results show that ghrelin levels increase after a single infusion of Tocilizumab, supporting the hypothesis that IL-6 blockade has a rapid beneficial effect on factors associated with MeS and cardiovascular risk in RA patients. Hence, long-term treatment with anti-IL-6 may reduce the risk of developing cardiovascular disease in RA.

REFERENCES:

- [1] Best Pract Res Clin Rheumatol 2016;30(5):851–869.
- [2] Biomed Res Int 2014;2014:860651.
- [3] Atherosclerosis 2011;219:734–36.
- [4] Arthritis Rheum 2010;62:2569–81.

Acknowledgements: FG is a recipient of a Sara Borrell post-doctoral fellowship from the Instituto de Salud Carlos III (ISCIII)(Spain), co-funded by European Social Fund (ESF, "Investing in your future") (CD15/00095). SR-M is supported by funds of the RETICS Program (RIER) RD16/0012/0009 (ISCIII, co-funded by the European Regional Development Fund, ERDF). RL-M is a recipient of a Miguel Servet type I programme fellowship from the ISCIII, co-funded by ESF (CP16/00033). VM is supported by funds of a Miguel Servet type I programme (CP16/00033)(ISCIII, co-funded by ERDF).

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.6829