JAK2/TYK2, and of JAK1/3-dependent cytokines was lowest for filgo 100-mg QD. For bari 2-mg QD vs. these other JAKi doses, %SI of JAK2/2 or JAK2/TYK2 was highest with upa followed by bari 2-mg. The highest inhibitors of the JAK1/2/TYK2-dependent cytokines varied by cytokine / cell type though consistently included upa. Inhibition of JAK1/3 was highest for upa and tofa. Across comparisons, filgo 100-mg QD showed the least %SI of JAK2/2 or JAK2/TYK2-dependent, and of JAK1/3-dependent cytokines. Filgo reached the highest levels of %SI among agents only for 200-mg QD vs. lower doses of the other JAKi (for selected JAK1/2/TYK2-dependent cytokines).

Conclusion: JAKis display different in vitro pharmacologic profiles which, coupled to their in vivo pharmacokinetics, suggest they modulate distinct cytokine pathways to differing degrees and durations over 24 hours. Ex vivo whole cell assays seem distinct from cell free kinase inhibition assays in determining the overall cytokine modulatory potential of members of the JAKi class.

References:

[1] McInnes IB, et al. *Arthritis Res Ther*. 2019 Aug 2;21(1):183

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Cardiovascular risk and management in IMIDS

OP0002

INCIDENCE OF FIRST CARDIOVASCULAR EVENT IN SPANISH PATIENTS WITH CHRONIC INFLAMMATORY RHEUMATIC DISEASES: PROSPECTIVE DATA FROM THE CARMA PROJECT AFTER 5 YEARS OF FOLLOW-UP

M. A. Martin-Martinez¹, S. Castañeda², F. Sánchez-Alonso³, C. García Gomez⁴, C. Gonzalez Juanatey⁵, M. A. Belmonte⁶, J. Tornero⁷, J. Santos Rey⁸, C. O. Sanchez Gonzalez⁹, E. Quesada-Masachs¹⁰, M. D. Moreno Gil¹¹, T. Cobo-Ibáñez¹², J. A. Pinto Tasende¹³, J. Babío¹⁴, G. Bonilla¹⁵, A. J. Mas¹⁶, J. Manesa¹⁷, M. Romero¹⁸, J. Bachiller-Corral¹⁹, E. Chamizo Carmona²⁰, J. Calvo²¹, R. Sanmarti²², M. C. Erasquin²³, R. Garcia de Vicuna²⁴, C. Barbadillo²⁵, S. Ros Exposito²⁶, J. Del Pino²⁷, M. J. Gonzalez²⁸, J. M. Pina Salvador²⁹, J. Llorca³⁰, M. A. González-Gay³¹. ¹SSR, Madrid, Spain; ²HU Princesa, Madrid, Spain; ³SSR, Madrid, Spain; ⁴CS Terrassa, Barcelona, Spain; ⁵HLucus Augusti, Lugo, Spain; ⁶HGR Malanga, Malaga, Spain; ⁷HU Guadalajara, Guadalajara, Spain; ⁸HU Virgen Salud, Toledo, Spain; ⁹H Sureste, Madrid, Spain; ¹⁰HU Vall Hebron, Barcelona, Spain; ¹¹CH Cáceres, Cáceres, Spain; ¹²HU Infanta Sofía, Madrid, Spain; ¹³CHUAC, A Coruña, Spain; ¹⁴H Cabueñes, Gijón, Spain; ¹⁵HU La Paz, Madrid, Spain; ¹⁶HU Son Llatzer, Palma de Mallorca, Spain; ¹⁷HU Miguel Servet, Zaragoza, Spain; ¹⁸HU Bellvitge, Barcelona, Spain; ¹⁹HU Ramon y Cajal, Madrid, Spain; ²⁰H Merida, Badajoz, Spain; ²¹HGU Valencia, Valencia, Spain; ²²H Clinic i Provincial, Barcelona, Spain; ²³H Dr. Negrin, Gran Canaria, Spain; ²⁴HU la Princesa, Madrid, Spain; ²⁵HU Puerta Hierro, Madrid, Spain; ²⁶H Viladecans, Barcelona, Spain; ²⁷HU Salamanca, Salamanca, Spain; ²⁸Inst. Dexeus, Barcelona, Spain; ²⁹H Barastro, Huesca, Spain; ³⁰Univers. Cantabria, Santander, Spain; ³¹HU Marques Valdecilla, Santander, Spain

Objectives: To determine the incidence and risk factors implicated in the development of first cardiovascular (CV) event (CVE) in patients with chronic inflammatory rheumatic diseases (CIRD) attending Spanish rheumatology clinics after 5 years of follow-up

Methods: Analysis of data of patients included in an observational prospective study [CARDiovascular in rheUMatology (CARMA) project] after 5 years of follow-up. The study includes a cohort of 2234 patients with rheumatoid arthritis (RA), ankylosing spondylitis (AS) and psoriatic arthritis (PsA), and another cohort of matched individuals (n=677) without CIRD from 67 hospitals in Spain.

Cumulative incidence per 1000 patients of CVE was estimated in both cohorts at 5 years from the start. Weibull proportional hazard model was used to calculate the Hazard Ratio (HR) and 95% confidence intervals (CI) of the risk factors involved in the development of CV events. Losses to follow-up and their causes were also analyzed.

Results: The total number patient who completed the follow-up visit at 5 years was 2.382 (81.9%). Fifteen patients died due to CVE and sixty due to non-CVE. The patients with CIRD showed higher cardiovascular cumulative incidence (40.5; 95% CI: 36.2-44.8) than controls (28.3; 95% CI: 21.8-34.8). The higher risk of developing a first CVE during the 5 years of follow-up was seen in patients with AS (HR: 4.60; 95% CI: 1.32-15.99; p=0.02), those with older age (HR:1.09; 95% CI: 1.05-1.13; p<0.001), higher systolic blood pressure (HR: 2.64; 95% CI: 1.32-5.25; p=0.006), and those with longer duration of the rheumatic disease (HR: 1.07; 95% CI: 1.03-1.12; p=0.002). In contrast, woman gender was a protective factor (HR: 0.45; 95% CI: 0.21-0.99; p=0.047).

Conclusion: Patients with AS prospectively followed-up at rheumatology outpatient clinics showed higher risk of developing a first CVE than those without CIRD. Besides traditional CV disease risk factors, a longer time course of the disease is a risk factor for the development of CV disease in patients with CIRD.

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Detection of type I interferon – Bridges into clinical applications

OP0003

EARLY AND SUSTAINED RESPONSES WITH ANIFROLUMAB TREATMENT IN PATIENTS WITH ACTIVE SYSTEMIC LUPUS ERYTHEMATOSUS (SLE) IN 2 PHASE 3 TRIALS

E. F. Morand¹, R. Furie², I. N. Bruce³, K. Kalunian⁴, R. Kalyani⁵, G. Abreu⁶, L. Pineda⁵, R. Tummala⁵. ¹Monash University, Melbourne, Australia; ²Zucker School of Medicine at Hofstra/Northwell, Great Neck, United States of America; ³University of Manchester, Manchester, United Kingdom; ⁴University of California, San Diego Health, La Jolla, United States of America; ⁵BioPharmaceuticals Medical, AstraZeneca, Gaithersburg, United States of America; ⁶BioPharmaceuticals Medical, AstraZeneca, Gothenburg, Sweden

Background: In the phase 3 TULIP-2 and TULIP-1 trials in SLE, treatment with the type I interferon receptor antibody anifrolumab resulted in higher percentages of patients with BICLA responses vs placebo at Week 52, with differences of 16.3% (primary endpoint; P=0.001, 95% CI 6.3–26.3) and 16.4% (secondary endpoint; 95% CI 6.7–26.2), respectively.1,2

Objectives: To better understand the time course of BICLA responses to anifrolumab, we examined responses over time compared with placebo in TULIP-2 and TULIP-1, including those that were sustained from attainment through Week 52.

Methods: The TULIP-2 and TULIP-1 randomized, double-blind, placebo-controlled trials evaluated the efficacy and safety of anifrolumab (300 mg Q4W) over 52 weeks in patients with moderately to severely active SLE who were receiving standard-of-care treatment. Time to onset of BICLA response that was sustained