Acknowledgements: The PredicSpA study was supported by MSD thanks to an unrestricted grant.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.2509

THU0347 IMPACT OF OBESITY ON THE RESPONSE TO TUMOUR NECROSIS FACTOR INHIBITORS IN AXIAL SPONDYLOARTHRITIS

R. Micheroli¹, M. Hebeisen², A. Scherrer², L. Wildi¹, P. Exer³, G. Tamborini⁴, J. Bernhard⁵, B. Möller⁶, P. Zufferey⁷, M.J. Nissen⁸, A. Ciurea¹. ¹University Hospital Zurich; ²SCQM, Zurich; ³Rheuma-Basel; ⁴UZR, Basel; ⁵Bürgerspital, Solothurn; ⁶Inselspital, Bern; ⁷CHUV, Lausanne; ⁸University Hospital Geneva, Geneva, Switzerland

Background: Few studies have investigated the impact of obesity on response to tumour necrosis factor inhibitors (TNFi) in patients with axial spondyloarthritis (axSpA).

Objectives: To investigate the impact of different Body Mass Index (BMI) categories on TNFi response in a large cohort of patients with axSpA.

Methods: Patients within the Swiss Clinical Quality Management cohort were included if they fulfilled the ASAS criteria for axSpA, started a first TNFi after recruitment and had available BMI data as well as a baseline and follow-up visit at 1 year (± 6 mo) (N=632). Patients were categorized according to BMI: normal (BMI 18.5 to <25), overweight (BMI 25 to 30) and obese (BMI >30). We evaluated the proportion of patients achieving the 40% improvement ASAS criteria (ASAS40) as well as Ankylosing Spondylitis Disease Activity Score (ASDAS) improvement and status scores at 1 year. Patients having discontinued the TNFi were considered non-responders. We controlled for age, sex, HLA-B27, axSpA-type, BASDAI, BASMI, elevated CRP, current smoking and physical exercise in multiple adjusted logistic regression analyses.

Results: In comparison to normal weight and overweight patients, obese individuals were significantly older, had a longer symptom duration and higher BASFI and BASMI levels, while ASDAS levels were comparable between the 3 groups (Table 1). Data to calculate the ASAS40 response was available in 496 patients (78%). It was reached by 44%, 35% and 28% of patients with normal weight, overweight and obesity, respectively, (p=0.02; Table 2). A significantly lower odds ratio (OR) for achieving ASAS40 response was found in adjusted analyses in obese patients vs patients with normal BMI (OR 0.30, 95% confidence interval (CI) 0.11–0.73, p=0.01). Comparable results were found for the other outcomes assessed. The respective adjusted ASAS40 OR in overweight vs. normal weight patients was 0.69, 95% CI 0.38–1.24, p=0.22.

Table 1. Baseline characteristics at start TNFi

Parameter	N 632	BMI category		
		Normal (N=331)	Overweight (N=202)	Obese (N=99)
Male sex, %	632	54	74*	64
Age, years	632	37.0 (11.2)	40.6 (11.5)*	44.2 (10.9)*#
Symptom duration, years	627	11.8 (10.1)	13.0 (11.4)	15.8 (11.7)*#
HLA-B27 positive, %	579	81	77	72
BASDAI	552	5.3 (2.0)	5.7 (1.9)*	5.8 (1.8)*
ASDAS-CRP	520	3.4 (0.9)	3.5 (0.9)	3.6 (0.9)
Elevated CRP, %	587	55	49	59
BASFI	558	3.6 (2.4)	4.2 (2.4)*	4.9 (2.6)*
BASMI	541	2.0 (2.0)	2.2 (1.9)	3.0 (2.3)*

*P values <0.015 compared with patients with normal weight. #P values <0.015 compared with patients with overweight. Values are the mean (SD).

Table 2. Unadjusted response rates after 1 year of treatment with a first TNF inhibitor

Outcome	N 496	BMI category			P*
		Normal (N=258)	Overweight (N=162)	Obese (N=76)	
ASAS40	496	44	35	28	0.02
ASDAS improvement ≥ 1.1	425	60	46	38	0.002
ASDAS <2.1	472	56	39	31	<0.001
ASDAS improvement ≥ 2	425	26	24	14	0.14
ASDAS <1.3	472	30	15	10	<0.001

Values are the %. *Overall P value.

Conclusions: Obesity is associated with significantly lower response rates to TNFi in patients with axSpA.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.2703

THU0348 SAFETY AND EFFICACY OF INTRAVENOUS GOLIMUMAB IN ADULT PATIENTS WITH ACTIVE ANKYLOSING SPONDYLITIS: RESULTS THROUGH WEEK 28

A. Deodhar¹, J.D. Reveille², D.D. Harrison³, L. Kim³, K.H. Lo³, E. Hsia^{3,4}.

¹Oregon Health & Science University, Portland; ²University of Texas Health Sciences Center, Houston; ³Janssen Research & Development, LLC, Spring House; ⁴University of Pennsylvania School of Medicine, Philadelphia, United States

Objectives: Subcutaneous (SC) golimumab (GLM) is currently approved for adult

patients (pts) with RA, PsA, and AS. The GO-ALIVE study was designed to evaluate the safety and efficacy of IV GLM in adult pts with active AS.

Methods: GO-ALIVE is a Phase 3, multicenter, randomized, double-blind, placebo (PBO)-controlled trial. Pts (aged ≥ 18 yrs) had a diagnosis of definite AS (per modified New York criteria) and BASDAI ≥ 4 , total back pain visual analogue scale ≥ 4 , and CRP ≥ 0.3 mg/dL. Pts were randomized (1:1) to IV GLM 2mg/kg at weeks (wks) 0, 4, and every 8 wks or PBO at wks 0, 4, and 12, with crossover to GLM at wk16. Up to 20% of pts could have had a prior anti-TNF agent (other than GLM), and up to 10% of pts could have complete ankylosis of the spine. The primary endpoint was ASAS20 at wk16. Major secondary endpoints were ASAS40, BASDAI50, and change in BASFI score at wk16. Some of the other statistically-controlled assessments were BASMI, and ASAS partial remission. Pts were monitored for adverse events (AEs). Data through wk28 are reported here.

Results: 208 pts were randomized and received study agent (PBO: 103; GLM: 105). Baseline demographic and disease characteristics were similar between treatment groups. 78% of pts were male, mean age was 39 yrs; mean disease duration was 5.5 yrs, 89.9% were HLA-B27 positive, 5.8% had complete ankylosis of the spine, 14.4% used a prior anti-TNF. At wk16, significantly greater proportions of GLM pts vs PBO had ASAS20 (73.3% vs. 26.2%), ASAS40 (47.6% vs. 8.7%), and BASDAI 50 (41.0% vs. 14.6%) responses (all p<0.001; Table). Reductions in BASFI were also significantly greater with GLM. ASAS20 was significantly higher with GLM than PBO as early as wk2 (37.1% vs 19.4%; p=0.005). Responses in the GLM group were maintained through wk28. PBO pts who crossed over to GLM at wk16 had improvements in clinical response at wk20 that were maintained through wk28. Through wk16, 23.3% of PBO pts and 32.4% of GLM pts had ≥ 1 AE. Infections were the most common type of AE (PBO, 7.8%; GLM, 11.4%). Through wk28, 34.8% of all GLM-treated pts had ≥ 1 AE; nasopharyngitis (5.4%) was the most common. Two pts (1.0%) had SAEs (pancreatitis, n=1; pneumonia, n=1). Both were randomized to GLM. There were no opportunistic infections, malignancies, or deaths through wk28. The rate of infusion reactions was low (1.5%). 3 pts treated with GLM had 4 reactions; none was serious or severe.

Table. Efficacy at week 16.

	Placebo 103	Golimumab 2 mg/kg 105
Patients randomized, n		
Clinical efficacy		
ASAS20, n (%)	27 (26.2%)	77 (73.3%)*
ASAS40, n (%)	9 (8.7%)	50 (47.6%)*
BASDAI 50, n (%)	15 (14.6%)	43 (41.0%)*
Change from baseline in BASFI, n	98	105
mean (SD)	-0.5 (2.0)	-2.4 (2.1)*
ASAS partial remission, n (%)	4 (3.9%)	17 (16.2%)*
Change from baseline in BASMI (linear), n	96	100
mean (SD)	-0.1 (0.5)	-0.4 (0.6)*

*p < 0.01; **p $\leq$ 0.001

ASAS20/40, $\geq 20\%/40\%$ improvement in Assessment in Ankylosing Spondylitis (ASAS) International Working Group criteria; BASDAI, Bath Ankylosing Spondylitis Disease Activity Index; BASFI, Bath Ankylosing Spondylitis Functional Index; BASMI, Bath Ankylosing Spondylitis Metrology Index; SD, standard deviation

Conclusions: IV GLM 2mg/kg was efficacious in reducing the signs and symptoms of AS compared with PBO. GLM was well-tolerated through wk28; the safety profile was consistent with other anti-TNFs, including SC GLM.

Disclosure of Interest: A. Deodhar Grant/research support from: Janssen, Amgen, Abbvie, GSK, Elli Lilly, Novartis, Pfizer, UCB, Consultant for: Janssen, Elli Lilly, Novartis, Pfizer, UCB, J. Reveille Grant/research support from: Janssen Scientific Affairs, LLC., D. Harrison Employee of: Janssen Research & Development, LLC, L. Kim Employee of: Janssen Research & Development, LLC, K. H. Lo Employee of: Janssen Research & Development, LLC, E. Hsia Employee of: Janssen Research & Development, LLC

DOI: 10.1136/annrheumdis-2017-eular.1020

THU0349 METHOTREXATE REDUCES ADALIMUMAB IMMUNOGENICITY IN PATIENTS WITH SPONDYLOARTHRITIS: A RANDOMIZED CLINICAL TRIAL

E. Ducourau^{1,2,3}, T. Rispen⁴, E. Dernis⁵, F. Le Guichard⁶, L. Andras⁶, A. Perdriger⁷, E. Lespessailles³, A. Martin⁸, G. Cormier⁹, T. Armingeat¹⁰, V. Devauchelle-Pensec¹¹, E. Solau-Gervais¹², B. Le Goff¹³, A. de Vries¹⁴, E. Piver^{15,16}, D. Ternant^{17,18}, P. Goupille^{1,2}, D. Mulleman^{1,2}. ¹Rheumatology, Université François Rabelais de Tours, CNRS 7292; ²Rheumatology, CHRU de Tours, Tours; ³Rheumatology, CHR d'Orléans, Orléans, France; ⁴Landsteiner laboratories, Sanquin Research, Amsterdam, Netherlands; ⁵Rheumatology, CH du Mans, le Mans; ⁶Rheumatology, CH de Blois, Blois; ⁷Rheumatology, CHRU de Rennes, Rennes; ⁸Rheumatology, CH de Saint-Brieuc, Saint-Brieuc; ⁹Rheumatology, CH de la Roche-sur-Yon, la Roche-sur-Yon; ¹⁰Rheumatology, CH de Saint-Nazaire, Saint-Nazaire; ¹¹Rheumatology, CHRU de Brest, Brest; ¹²Rheumatology, CHRU de Poitiers, Poitiers; ¹³Rheumatology, CHRU de Nantes, Nantes, France; ¹⁴Biologicals Lab, Sanquin Diagnostic Services, Amsterdam, Netherlands; ¹⁵Biochemistry, Université François Rabelais de Tours, Inserm U 966; ¹⁶Biochemistry, CHRU de Tours; ¹⁷Pharmacology-Toxicology, Université François-Rabelais de Tours, CNRS 7292; ¹⁸Pharmacology-Toxicology, CHRU de Tours, Tours, France

Background: TNF inhibitors are effective in treating spondyloarthritis (SpA).

However, anti-drug antibodies (ADA) may be responsible for decreased efficacy. Methotrexate reduces adalimumab immunogenicity in rheumatoid arthritis (1).

Objectives: The aim of the study was to evaluate the effect of methotrexate on ADA detection in SpA patients receiving adalimumab.

Methods: One hundred and ten SpA patients eligible for adalimumab 40 mg S/C eow were randomized on a 1:1 ratio to receive MTX 10 mg s/c every week, 2 weeks prior (V0) adalimumab (MTX+), or adalimumab alone (MTX-). ADA detection and adalimumab concentration were assessed 4 weeks (V2), 8 weeks (V3), 12 weeks (V4) and 26 weeks (V5) after starting adalimumab (V1). The main outcome was the percentage of positive patients for ADA detection at V5 or last available visit.

Results: Patients' characteristics (sex, previous TNF inhibitors, disease duration, HLA B27 +/-, BMI) were comparable between the two groups. One hundred and seven patients were analyzed, 55 in the MTX+ group versus 52 in the MTX- group. ADA were detected at V5, in 39/107 (36.4%) patients; 13/52 (25%) in the MTX+ group versus 26/55 (47.3%) in the MTX- group ($p=0.03$). Adalimumab concentrations were statistically higher in the MTX+ group as compared with the MTX- group at V2, V3, V4 and V5 (Figure 1). There was no difference in terms of adverse events and efficacy between the two groups.

Conclusions: MTX reduces immunogenicity and ameliorates pharmacokinetics of adalimumab in SpA patients. The clinical impact of this combination requires longer period studies.

References:

[1] Krieckaert CL, Nurmohamed MT, Wolbink GJ. Ann Rheum Dis 2012.

Acknowledgements: The authors thank Bruno Giraudeau for his methodological advice in the study design; Yoann Desvignes for technical support with the study protocol; Elody Marnat for data management; Coraline Gadras and Céline Vignault for blood sample management; Anne-Claire Duveau for technical assistance. This work was promoted by the Regional University Hospital Center of Tours and supported by grants from the French Ministry for Health and Sport within the framework of the "Programme Hospitalier de Recherche Clinique 2011" and received fundings from the "Lions Club, Tours Val de France" and from Nordic Pharma who provided subcutaneous methotrexate. This work was a collaborative venture by HUGO (Hôpitaux Universitaires du Grand Ouest – Western France University Hospitals Network).

Disclosure of Interest: E. Ducourau: None declared, T. Rispens: None declared, E. Dernis: None declared, F. Le Guichard: None declared, L. Andras: None declared, A. Perdriger: None declared, E. Lespessailles Grant/research support from: MSD, Novartis, UCB, Pfizer, Consultant for: MSD, Novartis, UCB, Pfizer, A. Martin: None declared, G. Cormier: None declared, T. Armingeat: None declared, V. Devauchelle-Pensec: None declared, E. Solau-Gervais: None declared, B. Le Goff: None declared, A. de Vries: None declared, E. Piver: None declared, D. Ternant Consultant for: Sanofi, Amgen, P. Goupille Consultant for: Abbvie, Biogaran, BMS, Hospira, Janssen, MSD, Pfizer, Sanofi-Genzyme, UCB, D. Mulleman Grant/research support from: Nordic Pharma, Abbvie, Consultant for: MSD, Novartis, UCB, Pfizer

DOI: 10.1136/annrheumdis-2017-eular.1527

THU0350 EFFECT OF NSAID CONSUMPTION ON CARDIOVASCULAR EVENTS IN SPONDYLOARTHRITIS

E. Rivire^{1,2}, A. Etcheto³, F. Van den Bosch⁴, D. Van der Heijde⁵, R. Landew⁶, M. Dougados³, A. Molt³ on behalf of ASAS-COMOSPA taskforce.

¹Rheumatology, Bictre Hospital, INSERM U1184, le Kremlin Bictre;

²Rheumatology B, Cochin Hospital; ³Rheumatology B, Cochin Hospital, INSERM U1153, Paris, France; ⁴Rheumatology, Ghent University Hospital, Ghent, Belgium; ⁵Rheumatology, Leiden University Medical Center, Leiden;

⁶Rheumatology and Immunology Center, ARC, Amsterdam and Zuyderland Hospital Heerlen, Amsterdam, Netherlands

Background: Non-steroidal anti-inflammatory drugs (NSAIDs) have been reported to increase cardiovascular (CV) risk. Studies on NSAIDs safety in patients with spondyloarthritis (SpA) are rare and contradictory. However, this question is

highly relevant for these patients with chronic NSAIDs use and increased CV risk (1).

Objectives: The objective of this study was to determine the relationship between NSAIDs use and the occurrence of CV events, including myocardial infarction (MI) and stroke, in patients with SpA.

Methods: This is an ancillary study of the observational, cross-sectional, multicenter, international ASAS-COMOSPA study. The inclusion criteria were: age >18 years and SpA diagnosis. In order to overcome prescription bias when comparing patients who ever received/did not receive NSAIDs, a propensity score (PS) to predict NSAIDs intake was calculated. Patients who had never received NSAIDs were matched to patients who ever received an NSAID according to the PS. In this matched population, the probability for a patient to present a CV event was estimated by logistic regression. Furthermore, in the global population of the study, factors associated with the occurrence of CV event were explored by logistic multivariate analysis, here including the NSAIDs score (2) of the last three months, age and gender, and using the PS as an adjustment variable.

Results: Of the 3984 patients enrolled in the study, data on CV event occurrence were available for 3961 patients. Among them, 3548 patients received NSAIDs (89.6%) and 378 had never received NSAIDs (10.4%). Patients who had never received NSAIDs had more often inflammatory bowel disease (9.9% vs 5.3%), and a less severe disease (% of bamboo patients: 2.0% vs 7.6%). Among the 756 matched patients, 29 (3.8%) patients reported a CV event (21 MI, 13 strokes and 5 MI + stroke). The number of patients with CV event was not significantly different between the two groups, ever and never NSAIDs exposure respectively (16 (2.1%) vs 13 (1.7%), OR =1.86 [0.496–6.989]). No difference was observed between the two groups for MI and stroke compared separately (12 (1.6%) vs 9 (1.2%), OR =2.96 [0.417–21.013] and 8 (1.1%) vs 5 (0.7%), OR =0.926 [0.288–22.108] respectively). In the second model, where PS was used as a covariate, the occurrence of overall CV event was independently associated with age (OR =2.7 [2.3–3.2]) and male sex (OR =1.9 [1.2–3.0]), but not with the NSAIDs score (OR =1.0 [0.9–1.1]).

Conclusions: The use of NSAIDs does not seem to be associated with the occurrence of CV event in patients with SpA, however it cannot be excluded that the study is underpowered. Further prospective studies are needed to confirm these results.

References:

[1] Haroon NN, et al. Ann Intern Med. 2015;163(6):409–16.

[2] Dougados M, et al. Ann Rheum Dis. 2011;70(2):249–51.

[3] Molt A, et al. Ann Rheum Dis. 2016;75(6):1016–23.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.2665

THU0351 ADALIMUMAB TAPERING WITH COMBINED METHOTREXATE CAN BE EFFECTIVE AS MAINTENANCE THERAPY IN SPA-RELATED UVEITIS

F. Lian, J. Zhou, Y. Wang, H. Xu, L. Liang, X. Yang. Dept. of Rheumatology, 1st Affiliated Hospital of Sun Yat-Sen University, Guangzhou, China

Background: Anti-TNF agents have deeply improved the therapeutic efficacy of spondyloarthritis (SpA)-related uveitis [1]. Despite the benefits of anti-TNF drugs, patients need to stay on this treatment for a long time. There has been a clear medical need to consider the long-term safety and increased drug costs. Unanswered question for physicians is whether TNF blockers can be reduced or even stopped in SpA-related uveitis, or how can it be reduced in patients have achieved remission or LDA. The current study aimed to investigate the effectiveness and safety of adalimumab tapering strategy in SpA-related uveitis. We tried to find a way in balancing the quality of the patients' lives, the side effects and the cost-effectiveness.

Objectives: The aim of this study was to evaluate the effectiveness of tapering of adalimumab combined with MTX in patients with spondyloarthritis (SpA)-related uveitis.

Methods: We performed a retrospective analysis. SpA patients with uveitis admitted to a south China hospital were enrolled. Demographic information, clinical characteristics, laboratory findings, intraocular inflammation, visual acuity, and macular thickness were documented every 3 to 6 months.

Results: In 32 cases of SpA-related uveitis who achieved clinical remission for at least 6 months after receiving a standard dose of adalimumab in combination of MTX, adalimumab was tapered and MTX was continued. Dosing interval of adalimumab were spaced by 30% every 3 months up to complete stop. Twenty-six cases without MTX were analyzed for comparison. No significant difference of demographic characteristics and BASDAI, CRP, ESR was found between the two groups at the baseline. During the first 12 months of adalimumab tapering, the mean BASDAI remained stable in both groups. No recurrent uveitis was found in the group with combined MTX. In the group without combined MTX, 2 patients (2/26, 7.7%) presented increased anterior chamber inflammation and visual acuity. At the end of 24 months, mean BASDAI, CRP and ESR remained low in both groups. Two cases (2/32, 6.3%) in the group of combined MTX were documented increased BASDAI higher than 4, but no recurrent uveitis was observed. Altogether 5 cases (5/32, 15.6%) in the group of combined MTX had recurrent uveitis, in which 4 cases (4/5, 80%) initiated adalimumab tapering at 6 months' remission. In comparison, 8 cases (8/26, 30.8%, $p<0.001$) in the group without combined MTX had recurrent uveitis, in which 6 cases initiated