

actives, 1 257 posts during the second sessions, tutored by peer patients with a dedicated training.

Some participants were health care professionals and their extremely positive feedbacks prove the value in offering MOOC access to every people interested in. **Conclusions:** This is the first digital training strategy for people with rheumatoid arthritis. It proved to be useful to patients, offering an alternative or complement to TPE.

It will be necessary to evaluate the impact of this MOOC on the quality of life of the patients and their perception on its usefulness after several sessions. We decided to propose an e-learning version without peer patient intervention and accessible at any time in addition to the MOOC version with a specific educational path.

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EULAR projects in paediatric rheumatology and UCAN

OP0013

PREGNANCY OUTCOMES IN DMARD EXPOSED PATIENTS WITH JUVENILE IDIOPATHIC ARTHRITIS – RESULTS OF THE BIOLOGIC REGISTER JUMBO

P. Drechsel¹, J. Klotsche¹, M. Niewerth¹, G. Horneff², K. Minden¹. ¹Epidemiology, German Rheumatism Research Centre Berlin, Berlin; ²Asklepios Clinic Sankt Augustin GmbH, Sankt Augustin, Germany

Background: Juvenile idiopathic arthritis (JIA) often persists into adult life. Young women and men with JIA are often still exposed to disease modifying anti-rheumatic drugs (DMARDs). Little is known about the impact of DMARDs on pregnancy and its outcome, and there has been no approved DMARD for pregnant or lactating women so far.

Objectives: To investigate the course and outcome of pregnancies in female JIA patients and male JIA patients with pregnant partners who were exposed to DMARDs.

Methods: In the JIA biologic registry JuMBO (Juvenile arthritis MTX/Biologics long-term Observation), patients (or partners of patients) with pregnancies were identified. Standardised patient interviews were conducted and the course and outcome of pregnancy inquired. In addition, prospectively collected physician-reported data were considered in the analysis.

Results: Out of the 1300 patients enrolled in JuMBO, a total of 222 pregnancies in 116 women and in 25 partners of men with JIA were reported. Until January 2018, information was available for 149 pregnancies of 96 women with JIA and for 34 pregnancies of 20 male patients with pregnant partners.

The majority of the 96 women had polyarticular JIA (75%). The median age at first conception was 24 years (ys, IQR 20–27) and the median disease duration was 14 ys (IQR 9–18). All women were ever exposed to DMARDs, 84% to a biological (b) DMARD. Among the 149 pregnancies, 64 occurred upon DMARD exposure (29 bDMARDs, 23 bDMARDs plus synthetic (s)DMARDs, 12 sDMARDs). DMARDs were discontinued in most exposed patients 6 weeks (median, IQR 4–9) after conception. In the groups of pregnancy exposed (n=64) and unexposed (n=85) to a DMARD at conception were the outcomes as follows: 36 and 64 live births, 16 and 6 elective pregnancy terminations, 8 and 12 spontaneous abortions, 2 and 0 extra-uterine gravidity, and 0 and 1 stillbirth, respectively. Among the 100 pregnancies with live births, most frequent complications were gestational diabetes in 9 cases and bleeding in 7 cases. Three women suffered from preeclampsia. Twelve children were born before the 37th week of gestation (5 (13.9%) of exposed and 7 (10.9%) of unexposed mothers) and 38 were born by Caesarean section. Six children were born with malformations, of which four are to be considered as major anomalies according to the EUROCAT classification¹ (2 (5.5%) in exposed patients and 2 (3.1%) in unexposed patients).

Of the 34 pregnancies in partners of male patients, in 26 cases the expectant fathers had been exposed to DMARDs at conception. Most pregnancies (29/34, 85.2%) resulted in a live birth, 3 (8.8%) ended in a spontaneous abortion and 1 (2.9%) pregnancy was terminated. Two (6.9%) children were born with congenital malformation

Conclusions: Women and men with JIA who are still undergoing treatment in young adulthood often become pregnant or procreate children under medication, why more information on drug safety in pregnancy is needed. For this, more patient data must be evaluated in connexion with therapy, disease activity and the JIA category.

REFERENCE:

- [1] European Surveillance of Congenital Anomalies, EUROCAT Guide 1.3, chapter 3.3: Coding of EUROCAT subgroups of congenital anomalies. Available from www.eurocat-network.eu (Accessed 30 January 2018).

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WEDNESDAY, 13 JUNE 2018

Opening plenary abstract session

OP0014

SERUM URATE, GOUT, AND CARDIOVASCULAR DISEASE IN A RANDOMISED CONTROLLED TRIAL OF CANAKINUMAB: A CANTOS SECONDARY ANALYSIS

D. Solomon¹, R.J. Glynn¹, J.G. MacFadyen¹, P. Libby¹, T. Thuren², B.M. Everett¹, P.M. Ridker¹. ¹Harvard Medical School, Boston, USA; ²Novartis, Basel, Switzerland

Background: Serum urate is a risk marker for both gout and cardiovascular disease, but trial data demonstrating that drugs which reduce gout also reduce cardiovascular event rates is scarce. It is also uncertain if any such effects are mediated through urate levels.

Objectives: We examined the relationships between serum urate (SUA), canakinumab, and incidence rates for gout and cardiovascular events in the Canakinumab Anti-inflammatory Thrombosis Outcomes Study (CANTOS), a randomised double-blind placebo controlled trial of IL-1 β inhibition.

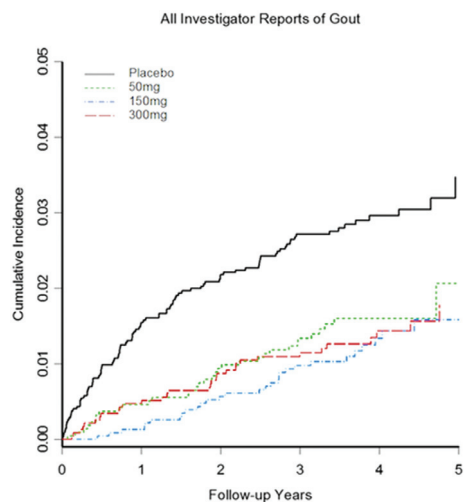
Methods: 10 061 patients with stable atherosclerosis (prior myocardial infarction) and hsCRP ≥ 2 mg/L were randomly allocated to placebo or to one of three doses of canakinumab (50 mg, 150 mg, or 300 mg), administered subcutaneously once every three months. Serum urate and hsCRP were tested at baseline and every 3 months for the first year and then annually. A physician diagnosed history of gout was ascertained at baseline and subsequent attacks were assessed during follow-up as part of the systematic adverse event reporting. The rates of gout and major adverse cardiovascular events (myocardial infarction, stroke, re-vascularisation, and cardiovascular death) were compared across different baseline SUA levels and by randomised treatment assignment.

Results: The groups were well balanced with respect to baseline characteristics with a median follow-up of 3.7 years. Median age was 61 years, 74% were male, median BMI was 29.8kg/m², and median SUA at baseline was 6.1 mg/dl (IQR: 5.2, 7.2). In the placebo group, rates for both gout and major adverse cardiovascular events increased across baseline SUA strata. Rates were 0.28, 1.36, and 5.94 per 100 person years for gout and 4.1, 5.3, and 5.6 for major adverse cardiovascular events per 100 person years for SUA levels of <6.9 , 6.9–8.9, and ≥ 9.0 mg/dL, respectively. Random allocation to all dosages of canakinumab reduced rates of incident gout (see figure 1). This reduction in gout by canakinumab was observed at all baseline SUA levels (see table 1), and canakinumab had no effect on SUA levels over time but did reduce hsCRP.

Abstract OP0014 – Table 1. Gout risk by treatment assignment, stratified by baseline serum urate

	SUA	Placebo		Canakinumab (all dosages)			
		N	Events	N	Events	Rate (95% CI)	HR (95% CI)
Gout events							
	<6.9 mg/dl	2326	24	4614	19	0.28 (0.18–0.41)	0.40 (0.07–0.73)
	6.9–8.9 mg/dl	831	41	1684	41	1.36 (1.00–1.85)	0.48 (0.31–0.74)
	≥ 9.0 mg/dl	186	34	418	36	5.94 (4.25–8.32)	0.45 (0.28–0.72)

SUA, serum urate; Rate per 100 person-years; HR, hazard ratio; CI, confidence interval. Hazard ratios calculated using placebo as reference.



Conclusions: The CANTOS trial confirms that serum urate is a risk marker for both gout and cardiovascular events and demonstrates that IL-1 β inhibition is effective in preventing both of these inter-related conditions. However, canakinumab had no effects on serum urate itself.

REFERENCE:

- [1] Ridker PM, Everett BM, Thuren T, et al. Antiinflammatory therapy with canakinumab for atherosclerotic disease. *N Engl J Med* 2017;377:1119.

Disclosure of Interest: D. Solomon Grant/research support from: Astra Zeneca, R. Glynn: None declared, J. MacFadyen: None declared, P. Libby: None declared, T. Thuren Employee of: Novartis, B. Everett: None declared, P. Ridker: None declared

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OP0015 MORTALITY OF THE COBRA EARLY RHEUMATOID ARTHRITIS TRIAL COHORT AFTER 23 YEARS FOLLOW UP

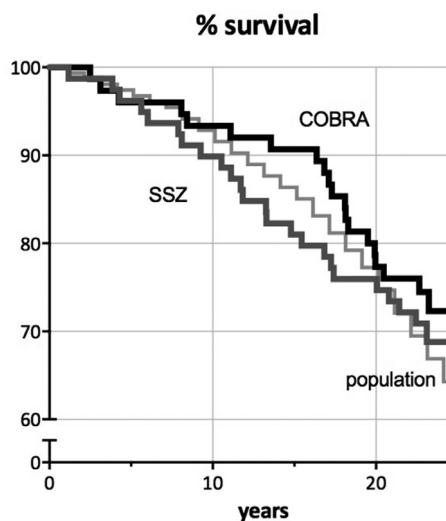
P.B.M. Poppelaars¹, L.H.D. van Tuyl¹, M. Boers^{1,2}. ¹Amsterdam Rheumatology and Immunology Center | VU University Medical Center; ²Epidemiology and Biostatistics, VU University Medical Center, Amsterdam, Netherlands

Background: Mortality in patients with rheumatoid arthritis (RA) is higher than the general population. Most cohorts show that the adverse effect of RA becomes apparent only after more than a decade of follow up. Whether early, intensive treatment can improve this is still unknown. COBRA combination therapy (COmbinatietherapie Bij Rheumatoïde Artritis) showed long-term effectiveness for treatment of early RA without undue harm.¹ In 2010, after 11 years of follow up, the COBRA follow up study showed lower mortality in patients with COBRA treatment compared to patients with sulphasalazine monotherapy.²

Objectives: Our aim was to investigate mortality in the COBRA-trial cohort after 23 years and compare this mortality to a reference sample of the general population in the Netherlands.

Methods: In the COBRA trial, patients with early RA (median disease duration, 4 months) were treated with sulphasalazine monotherapy (SSZ, n=79) or a combination of SSZ, low-dose methotrexate and initially high, step-down prednisolone (COBRA, n=76). In the current study, we investigated mortality in the COBRA trial with the help of the Dutch state registry for mortality (Centrum van familiegeschiedenis, CBG). We compared the mortality in this cohort to a reference sample of the general population in the Netherlands matched for age and gender (data from Statistics Netherlands). The Standardised Mortality Ratio (SMR) compared the trial groups and the general population.

Results: With data of 154 out of the 155 patients, follow up was nearly complete. Duration of follow up was mean 23 (in patients alive, range 22–24) years. In total 44 patients died (28%, SMR=0.80 [95% CI: 0.59 to 1.06]); 20 of 75 COBRA patients (27%, SMR 0.75; [0.47–1.14]) and 24 of 79 SSZ patients (30%, SMR 0.85 [0.56–1.25]); the difference in mortality was not significant (p=0.61). In the reference sample of the general population (n=154) 55 people (36%) died. The positive trend for COBRA over SSZ decreased over time (figure 1).



Conclusions: This prospective cohort study of early RA is one of the first to show a normalisation of RA mortality compared to the general population after 23 years of follow up. In fact, this trial population had a numerically lower mortality than expected. This confirms that early, intensive treatment of RA (that can include glucocorticoids) has long-term benefits, and strongly suggests these benefits include normalisation of mortality.

REFERENCES:

- [1] Boers M, et al. *Lancet* 1997;350:309–18.
[2] van Tuyl LH, et al. *Ann Rheum Dis* 2010;69:807–12.

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OP0016 A MULTICENTRE RANDOMISED CONTROLLED TRIAL OF ZOLEDRONIC ACID FOR OSTEOARTHRITIS OF THE KNEE WITH BONE MARROW LESIONS

G. Cai¹, D. Aitken¹, L. Laslett¹, C. Hill², L. March³, A.E. Wluka⁴, Y. Wang⁴, L. Blizzard¹, F. Cicuttini⁴, T. Winzenberg¹, G. Jones¹. ¹Menzies Institute for Medical Research, University of Tasmania, Hobart; ²The Queen Elizabeth Hospital, Woodville; ³Royal North Shore Hospital, University of Sydney, Sydney; ⁴Department of Epidemiology and Preventive Medicine, Monash University, Melbourne, Australia

Background: No disease-modifying drugs are currently available for the treatment of osteoarthritis (OA). Bone marrow lesions (BMLs) visualised on magnetic resonance imaging (MRI) have been identified as a promising therapeutic target. Our pilot study showed that a single infusion of zoledronic acid (ZA) reduced knee pain and BML size in knee OA patients over 6 months.¹ A longer, larger study was required to assess whether these improvements can be reproduced in a larger multicentre design.

Objectives: To compare the effect of once-yearly intravenous infusion of ZA to placebo on knee pain and BML size over 24 months in knee OA patients with significant knee pain and BMLs.

Methods: The Zoledronic Acid for Osteoarthritis Knee Pain (ZAP2) study is a multicentre, randomised, double-blinded, placebo-controlled trial over 24 months. Patients ≥ 50 years who had significant knee pain (defined as a visual analogue scale (VAS) ≥ 40 mm) and MRI-detected knee BML were randomised to receive either ZA (5 mg in 100 ml saline) or placebo (100 ml saline) once-yearly. Those with severe knee OA (joint space narrowing (JSN) on X-ray of Grade 3 using the Osteoarthritis Research Society International (OARSI) atlas) were excluded. Outcomes included knee pain and function by the Western Ontario and McMasters Universities Osteoarthritis Index (WOMAC), knee pain by VAS and change in knee total BML size (sum of medial femoral, lateral femoral, medial tibial, lateral tibial and patellar sites) by proton density weighted MRI from baseline to 24 months. Effect modification of the absence or presence of radiographic OA (JSN grade 0 or grade 1–2) was pre-specified. Mixed effect modelling using an intent-to-treat design was performed for data analyses. Adjustment for baseline values were performed for knee pain and function outcomes due to baseline imbalances.

Results: 223 patients (mean \pm SD age 62.0 \pm 8.0 years, 117 females) were enrolled. At baseline, mean \pm SD knee WOMAC pain (0–500), WOMAC function (0–1700) and VAS pain scores (0–100) were 200.0 \pm 105.0, 656.9 \pm 352.9 and 51.0