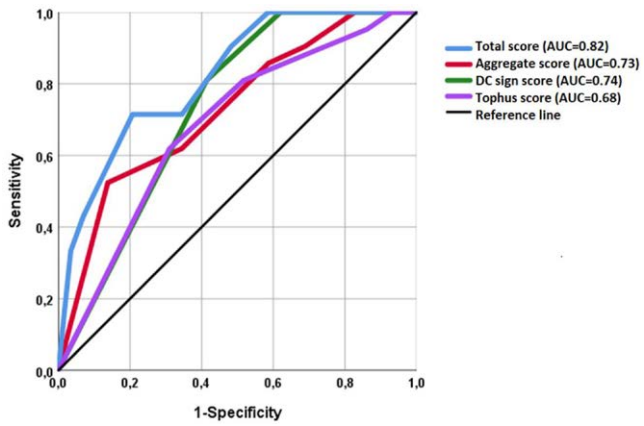

Conclusion: Baseline US estimation of MSU burden is an independent predictor of gout clinical remission at 12 months. The absence of US MSU deposits was the most significant predictor of remission, whereas the US detection of DC sign in at least one joint of not achieving remission. Thus, performing an US examination in patients amenable to fulfil the remission criteria after 12 months may improve risk-stratification and inform management of these patients.

REFERENCES:

[1] de Lautour H, *et al.* Development of Preliminary Remission Criteria for Gout Using Delphi and 1000Minds Consensus Excersices. *Arthritis Care Res* 2016;**68**:667–72

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Rheumatoid arthritis - comorbidity and clinical aspects - II

OP0210

PREGNANCY OUTCOMES IN RELATION TO DISEASE ACTIVITY AND ANTI-RHEUMATIC TREATMENT STRATEGIES IN WOMEN WITH RHEUMATOID ARTHRITIS – A MATCHED COHORT STUDY FROM SWEDEN AND DENMARK

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Background: Women with rheumatoid arthritis (RA) are at increased risks of adverse pregnancy outcomes, especially preterm birth (PTB) and small for gestational age (SGA). However, the link between RA disease activity, type and timing of anti-rheumatic treatment, and the risk of these outcomes remains unclear.
Objectives: To explore the associations between maternal RA and PTB/SGA in relation to disease activity and use of anti-rheumatic treatment before and during pregnancy.
Methods: By linking national medical birth registers to prospective clinical rheumatology registers (CRRs) in Sweden (SRQ) and Denmark (DANBIO), we identified 1739 RA-pregnancies and 17390 control-pregnancies (matched 1:10 on maternal age, birth year, and parity) with delivery 2006-2018. From CRRs and prescribed drug registers, we collected information on RA disease activity (DAS28, CRP and HAQ-score) and anti-rheumatic drugs (biologics, conventional synthetic (cs)DMARDs and oral steroids) nine months before and during pregnancy. Using logistic regression, we estimated adjusted odds ratios (ORs) with 95% confidence intervals (CI) for PTB and SGA in RA-pregnancies vs. control-pregnancies overall, and stratified by disease activity and type of anti-rheumatic treatment before and during pregnancy. Apart from the matching variables we adjusted for body mass index, smoking, educational level and country.
Results: Overall, RA-pregnancies were associated with increased ORs of PTB (1.92, 95% CI 1.56-2.35) and SGA (1.93, 95% CI 1.45-2.57). High maternal disease activity during pregnancy strengthened the associations with both PTB and SGA, whereas the ORs approached 1 for low disease activity (control-pregnancies constituting the reference), Table 1. Among RA-pregnancies with available information on DAS28-CRP (n=686, 39%), OR was 2.69 (95% CI 1.37-5.26) for PTB, and 3.39 (95% CI 1.43-8.06) for SGA, comparing DAS28-CRP >=3.2 vs.<3.2 during pregnancy. Stratifying on type of anti-rheumatic treatment did not substantially change the results. Combination therapy with biologics together with oral steroids and/or csDMARDs in the nine months before pregnancy was associated with PTB (ORs spanning 2.57-3.45) and SGA (ORs spanning 2.40-3.81).
Conclusion: During pregnancy, disease activity rather than treatment, appears to be the most important risk factor for PTB and SGA in RA. The findings highlight the importance of monitoring RA during pregnancy, especially in women receiving extensive anti-rheumatic treatment or with residual disease activity.

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Table 1. Adjusted odds ratios (ORs)1 for PTB and SGA in RA-pregnancies in relation to disease activity and functional status during pregnancy vs. control pregnancies

		Preterm birth			Small for gestational age[1]		
		Pregnancies, n	Events, n (%)	Adjusted OR (95% CI)	Pregnancies, n	Events, n (%)	Adjusted OR (95% CI)
Control-pregnancies[2]		17312	794 (5)	1 (REF)	17184	418 (2)	1(REF)
All RA pregnancies[2]		1734	144 (8)	**1.92 (1.56-2.35)**	1722	75 (4)	**1.93 (1.45-2.57)**
DAS28-CRP[3,4]	<3.2	459	26 (6)	1.05 (0.64-1.72)	456	13 (3)	0.96 (0.49-1.91)
	3.2-5.1	182	17 (9)	**2.40 (1.40-4.11)**	181	13 (7)	**3.13 (1.64-5.97)**
	>5.1	43	5 (12)	2.77 (0.86-8.87)	43	4 (9)	**4.59 (1.59-13.2)**
	No information	1050	96 (9)	**2.18 (1.71-2.78)**	1042	45 (4)	**2.06 (1.46-2.90)**
HAQ-score[3]	<0.5	338	19 (6)	1.31 (0.79-2.16)	335	8 (2)	0.93 (0.41-2.12)
	0.5-0.9	166	15 (9)	**2.37 (1.34-4.19)**	165	5 (3)	1.50 (0.60-3.74)
	≥1	196	19 (10)	**1.85 (1.06-3.24)**	195	18 (9)	**3.70 (2.05-6.67)**
	No information	1034	91 (9)	**2.06 (1.60-2.64)**	1027	44 (4)	**1.98 (1.39-2.82)**
CRP, mg/L[3]	<10	455	21 (5)	0.91 (0.55-1.51)	452	14 (3)	1.09 (0.57-2.07)
	10-29	191	22 (11)	**2.58 (1.52-4.38)**	190	12 (6)	**2.68 (1.38-5.22)**
	≥30	57	9 (16)	**4.59 (2.28-9.22)**	57	5 (9)	**4.12 (1.68-10.1)**
	No information	1031	92 (9)	**2.10 (1.64-2.70)**	1023	44 (4)	**2.05 (1.44-2.90)**

[1]Missingness on small for gestational age in 12 RA-pregnancies and 128 control-pregnancies [2]Only among live births, i.e. stillbirths excluded. [3]Maximum value any time during pregnancy [4]Defined as DAS28-CRP without patient's global health VAS