## **Medical or Research Professionals/Clinicians**

Topic area: Clinical topics by disease

Specific topic: 12. Rheumatoid arthritis - comorbidity and clinical aspects

## **EULAR15-4145**

## PREGNANCIES IN PATIENTS WITH RHEUMATOID ARTHRITIS: TREATMENT DECISIONS, COURSE OF THE DISEASE, AND PREGNANCY OUTCOMES

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My abstract has been or will be presented at a scientific meeting during a 12 months period prior to EULAR 2015:

Is the first author applying for a travel bursary or an award for undergraduate medical students?: No Background: Observational data so far suggest that biologic disease modifying antirheumatic drugs (bDMARDs) can be safely used in patients with rheumatoid arthritis (RA) until conception/awareness of pregnancy. However, little is known about the course of the disease during pregnancy in women who stopped bDMARDs in the first trimester, how to treat high disease activity (e.g. glucocorticoid use) and the influence of treatments on the birth outcome.

**Objectives:** To study the outcomes of pregnancies and the courses of disease activity in RA patients under different treatment regimens.

**Methods:** We analysed pregnancies and their outcomes that were reported to the German biologics register RABBIT until end of 2014, stratified by treatment at the time of conception. In a subgroup of patients with pregnancies reported between 2001 and 2011, data of the regular RABBIT study visits were complemented by telephone interviews with particular focus on the course of pregnancy as well as disease activity and treatment during pregnancy. Descriptive statistics were applied to study associations between pregnancy outcomes and exposure to bDMARDs, glucocorticoid use as well as the course of self-reported disease activity.

**Results:** In 1,715 female RA patients ≤ 45 years, 95 pregnancies in 78 patients were reported. At time of conception 51 pregnancies were exposed to bDMARDs (26x etanercept, 10x adalimumab, 4x tocilizumab, 4x certolizumab pegol, 3x rituximab, 2x abatacept, 1x infliximab, and 1x golimumab). Out of 44 women unexposed to bDMARDs at time of conception, 9 were biologic naive and 35 had received their last infusion or injection at least 4 weeks (rituximab 6 months) before conception (10x etanercept, 9x adalimumab, 2x tocilizumab, 1x infliximab, 13x rituximab).

The rates of spontaneous abortions were similar across treatment regimens and in the range of the rates of the general population (~ 15-20%). Induced abortions were reported in 4 out of 95 pregnancies (one due to trisomia 21 with cardiac defect).

More than one third of patients (37%) exposed to bDMARDs at conception also required bDMARDs and/or  $\geq$ 10 mg/d glucocorticoids later in pregnancy. All preterm births occurred in patients with  $\geq$ 10 mg/d glucocorticoids.

Table: Pregnancy outcomes in the cohort and the interviewed subgroup (the latter with course of disease and treatment during pregnancy). LI = last infusion/injection before conception, ADA = adalimumab, RTX = rituximab Image/graph:

All (n=78 patients)	bDMARD	bDMARD stopped before conception	bDMARD at conception	
	naive			
No. of pregnancies	9	35	51	
Induced abortions (%)	0	3 (9)	1 (2)	
Spontaneous abortions (%)	0	4 (11)	10 (20)	
Live births (%)	9 (100)	28 (80)	40 (78)	
Malformations		1x anal atresia with urogenital		
		malformation (ADA, LI 4 weeks);	1x talipes (ADA, talipes also present in the mother)	
		1x congenital nystagmus (ADA, LI 6		
		months);		
		1x trisomia 21 with cardiac defect		
		(RTX, LI 8 months, induced abortion)		
Subarana of maticata mith			bDMARD	bDMARD
Subgroup of patients with			stopped	continued
telephone interviews (n=55)			after	during
(11=33)			conception	pregnancy
Pregnancies	7	21	26	9
Disease activity during pregnancy [0-10, 0 = best]				
1 <sup>st</sup> trimester mean (sd)	3.6 (2.6)	4.1 (2.3)	3.4 (2.7)	5.3 (3.3)
2 <sup>nd</sup> trimester mean (sd)	3.1 (2.4)	3.9 (2.3)	3.7 (2.7)	5.0 (3.1)
3 <sup>rd</sup> trimester mean (sd)	3.0 (2.4)	4.0 (2.7)	4.0 (3.0)	5.4 (3.2)
Increase of disease activity during pregnancy, n (%)	0	3 (14.3)	5 (19.2)	1 (11.1)
Flares yes n (%)	3 (42.9)	5 (23.8)	9 (34.6)	1 (11.1)
Treatment with glucocortic	oids during p	regnancy		
Glucocorticoids > 10mg/d (%)	0	9 (42.9)	10 (38.5)	5 (55.6)
Birth outcome				
No. of preterm births	0	4	4	0
No. of mature births	7	17	22	9
Birth weight mean (sd)	2956 (337)	3172 (660)	3064 (445)	3088 (268)

**Conclusions:** Within this limited sample of pregnancies we confirmed previous reports and found no increased risk of malformations or other harmful consequences in patients exposed to biologic treatment around the time of conception. **Acknowledgements:** The German Biologics Register RABBIT is supported by a joint, unconditional grant from AbbVie, Bristol-Myers Squibb, MSD Sharp&Dohme, Pfizer, Roche, and UCB

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