

# Reproductive Health Outcomes in Women with RA and PsA

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## BACKGROUND

- RA improves in pregnancy and flares postpartum
- Active disease causes adverse foetal outcomes
- In PsA, the data is less clear as many of these studies are retrospective, lack validated disease activity scores and predate biologic use
- We sought to compare disease activity plus maternal and foetal outcomes between RA and PsA.

## RESULTS

- 23 RA and 11 PsA patients were included
- Median (range) age was 36 (27-43) in RA and 36 (27-39) in PsA
- TNFi usage was higher in PsA than RA [8 (73%) versus 4 (17%), p=0.001, Mann Whitney U]. 7 (30%) RA and 2 (18%) PsA patients took a csDMARD. 5 (22%) RA and 1 (9%) PsA patients took prednisolone. 3 (13%) RA and 2 (18%) PsA patients were prescribed a non-TNFi biologic. One patient was prescribed an NSAID in each group. Aspirin was taken by 6 (26%) RA and 2 (18%) PsA patients
- Overall, disease activity scores decreased during pregnancy and increased postpartum (Table 1). Maternal and foetal outcomes are shown in Table 2.

**Table 1. Disease activity**

	Pregnancy planning		Pregnant		Postpartum	
	RA	PsA	RA	PsA	RA	PsA
<b>VAS, mm</b>	40 (20-50)	35 (20-50)	30 (0-90)	30 (0-100)	30 (20-70)	50 (0-100)
<b>28 TJC</b>	0 (0-12)	6.5 (1-12)	0 (0-10)	0 (0-2)	2 (0-8)	1 (0-2)
<b>28 SJC</b>	0 (0-12)	1.5 (1-12)	0 (0-10)	0 (0-2)	1 (0-8)	1 (0-2)
<b>CRP</b>	7.75 (3-13)	1.85 (2-2)	4.35 (1-14)	4.75 (3-14)	14 (3-299)	1.5 (1-2)
<b>DAS28CRP-3</b>	3.52 (1.65-5.40)	3.31 (2.48-4.14)	1.89 (1.31-5.13)	1.86 (1.65-3.17)	3.21 (1.69-5.01)	2.16 (1.59-2.73)

Data presented as median (range)

## CONCLUSIONS

- In this small study, disease activity generally improved in pregnancy and flared postpartum.
- There were adverse maternal outcomes in 33% of RA and 20% of PsA patients.
- Adverse foetal outcomes were seen in the offspring of 1/15 of RA and 1/5 of PsA patients
- Compared to the Irish population, birthweights were similar, maternal age was older and rates of Caesarean section were higher

## METHODS

- Prospective study of women attending our multidisciplinary combined service
- Patients reviewed pre-pregnancy, once per trimester and at 3 months postpartum
- DAS28CRP-3 was used to assess disease activity as this is validated in pregnancy
- Between group differences analysed using Pearson Chi square, Fischer's exact test or Mann-Whitney U tests

**Table 2. Maternal and foetal outcomes**

	RA (n=15)	PsA (n=5)
<b>Method of delivery</b>		
<b>Spontaneous vaginal delivery</b>	6 (40%)	4 (80%)
<b>Assisted vaginal delivery</b>	3 (20%)	0
<b>Emergency Caesarean section</b>	4 (27%)	1 (20%)
<b>Elective Caesarean section</b>	2 (13%)	0
<b>Birth outcome</b>		
<b>Female child</b>	8 (57%)	4 (80%)
<b>Birthweight, kg<sup>1</sup></b>	3.49 (2.94-3.91)	3.18 (1.02-4.02)
<b>Gestational age, weeks</b>	40.5 (37.4-41.6)	39.0 (25.6-40.4)
<b>Preterm birth</b>	0	1 (20%)
<b>5 Minute APGAR score</b>	9 (9-9)	8.5 (7-9)
<b>Maternal adverse outcome</b>	5 (33%)	1 (20%)
<b>Caesarean wound infection</b>	2 (14%)	1 (20%)
<b>3<sup>rd</sup> or 4<sup>th</sup> degree tear<sup>2</sup></b>	3 (21%)	0
<b>Foetal adverse outcomes</b>		
<b>Neonatal ICU admission</b>	0	1 (20%)
<b>Foetal ventilator requirement</b>	0	1 (20%)
<b>Foetal jaundice</b>	1 (7%)	1 (20%)
<b>Foetal anaemia</b>	0	1 (20%)
<b>Foetal hypoglycaemia</b>	1 (7%)	0

1). Nationally=3.49kg 2). General population rate 3%