## MISCELLANEOUS RHEUMATIC DISEASES

E046 PATERNAL FERTILITY AND CONCEPTION DATA FROM A LONDON DISTRICT GENERAL HOSPITAL

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**Background:** Male fertility in the world of reproductive rheumatology is a much neglected area with a paucity of live data. Available data is derived from case reports, cohort studies and systematic literature reviews, including a recent literature review suggesting that most

anti-rheumatic drugs are safe in men trying to conceive. Our aim was to explore local outcomes in terms of the impact of anti-rheumatic drugs on male fertility.

**Methods:** We conducted a survey over a 6-month period from February to August 2018. All male patients attending our rheumatology outpatient department were asked to fill in an anonymous questionnaire regarding diagnosis, medication and if they conceived any children whilst on medication. Patients were excluded from the final analysis if they did not have a formal diagnosis, never received any pharmacological treatment or started their first treatment within the past 9 months.

Results: A total of 236 men completed the questionnaire and data from 180 was included in the study after applying exclusion criteria. The mean age of the patients was 54.9 years (SD  $\pm$  13.8) and the diagnoses included rheumatoid arthritis (n = 57), ankylosing spondylitis (n = 47), psoriatic arthritis (n = 36), connective tissue diseases (n = 22)and other (n=21), including IgG4-related disease, sarcoidosis and polymyalgia rheumatica. Of the 180 included men, 127 had biological children. However, only 26 (20%) had their children whilst taking an anti-rheumatic drug. These men were taking a non-steroidal antiinflammatory drug (NSAID, n=5), methotrexate (n=4), adalimumab (n = 3), sulfasalazine (n = 3), prednisolone (n = 1), infliximab (n = 1) or a combination of prednisolone and adalimumab (n = 1) at the time of conception. 8 patients did not identify which medication they were taking. None of the 26 men who conceived children whilst on treatment reported health or developmental problems with their offspring. Of those men with children, 12 (9%) reported stopping treatment whilst trying to conceive. Three of them stopped taking sulfasalazine, four stopped methotrexate and one stopped NSAIDs whilst five patients did not respond to the question. Overall, 10 men (6%) said they sought medical advice regarding fertility and 6 men underwent fertility investigations. One was deemed infertile. One reported failed IVF treatment. Two reported no abnormalities and the remaining two did not indicate the outcome of their investigations. The man deemed infertile was receiving treatment with sulfasalazine, methotrexate and adalimumab. One patient reported conceiving whilst on methotrexate, but his partner subsequently had a miscarriage.

**Conclusion:** Although our numbers are small and rely on self-reported outcomes, we can see that the majority of male patients conceived whilst on various medications with no reported impact on fertility, thus supporting the existing literature.

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