

Diagnosis of arthritis 5 years earlier in childless women compared to those with children

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Nulliparous women (those who have not given birth to children) are diagnosed with chronic arthritides (including ankylosing spondylitis, psoriatic arthritis and rheumatoid arthritis (RA) an average of 5.2 years before parous women (those who have given birth to children), according to a new study.

Previous studies have highlighted that pregnancy may be a protective factor against the development of RA, whereas this is the first study to assess the effect of pregnancy and having children on the development of chronic arthritic conditions in premenopausal women. Within the study, the mean age at time of diagnosis for nulliparous women was 26 years, compared with 31.2 years for parous women (pRheumatoid factor (an autoantibody sometimes found in the immune systems of people with RA) was also present in 37.1% of the nulliparous women compared with 41.1% of the parous women ($p=0.21$), which, although not statistically significant, may indicate that the parous women studied may possess a higher disposition to developing arthritis than the nulliparous women.

Dr Marianne Wallenius, of the Norwegian University of Science and Technology, Norway, who led the study, said: "Arthritic conditions tend to occur more commonly in women, particularly those of childbearing age. Some symptoms of RA, for example, can improve during pregnancy, but our study indicates that the processes of pregnancy and

childbearing could delay the onset of arthritic conditions. Continued examination of the complex interactions between the female reproductive processes and the epidemiology of RA could yield further interesting insights."

The retrospective study analysed 557 women aged 18-45 years from the Norwegian Disease Modifying Antirheumatic Drug (NOR-DMARD) study, who were all diagnosed with chronic arthritides before the age of 45 years. Information about parous status was confirmed through linking the NOR-DMARD patient cohort with the Medical Birth Registry of Norway (MBRN).

The time of diagnosis was recorded at the time of enrollment into the study and group comparisons were performed with Mann-Whitney U test for continuous variables and chi-square tests for categorical variables. Cox multiple regression analyses were used to compare the age at diagnosis for nulliparous and parous women. The analyses were adjusted for smoking, length of education and age at the time of the current analyses.

Of the 557 women identified, 163 were nulliparous and 394 were parous (with a minimum of one delivery). The mean age at the time of the current analyses was 36.2 years for the nulliparous women, and 41.1 years for the parous women (pNulliparous women were found to have a significantly higher educational level than parous women (p=0.02), although smoking habits were not found to be significantly different between the groups (p=0.11). Unadjusted in the Cox multiple regression analyses, the nulliparous women were diagnosed at a significantly earlier age than the parous women: RR (95% CI) 1.83 (pSource: European League Against Rheumatism

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