Rheumatoid Arthritis May Increase Risk for Adverse Pregnancy Outcomes

Pregnant women with rheumatoid arthritis face an increased risk of adverse obstetric outcomes, and they desire heightened prenatal attention, according to a recent report in the February issue of the Annals of Rheumatic Diseases.

Specifically, mothers with rheumatoid arthritis (RA) were 1.47 times more likely than unaffected mothers to have a low-birth-weight baby and 1.20 times more likely to have a baby deemed small for gestational age. Women with RA also had a higher risk for developing pre eclampsia (adjusted odds ratio, 2.22) or having to undergo a cesarian section (adjusted OR, 1.19), according to investigators from Taipei (Taiwan) Medical University (Ann. Rheum. Dis. 2010 Feb. [doi:10.1136/ard.2008.102262]).

“Our findings suggest a need for more intensive prenatal care for pregnant women with RA. In addition, early intervention should be considered to counter potential adverse obstetric outcomes for pregnant women with RA,” according to Herring Ching Lin, Ph.D., and associates, all of whom are with the university’s school of health care administration.

Investigators used two databases in their analysis. The first was the Taiwan National Health Insurance Research Dataset (NHIRD), which included inpatient and ambulatory care claims from 1996 to 2003, and the second was the 2001-2003 National Birth Certificate Registry (NBCR), which is maintained by the government of Taiwan. From the nearly 500,000 women who had live singleton births in Taiwan between 2001 and 2003, the investigators identified 1,912 mothers with RA (ICD-9-CM, code 714.0) and compared their pregnancy outcomes with those of 9,560 controls who were matched to the cases by age, parity, and year of delivery. The diagnosis of RA in the cases was usually made by a rheumatologist and based on clinical symptoms, radiographic changes, and the presence of rheumatoid factor.

Women with RA were no more likely than their unaffected peers to have preterm births. For women with RA, the mean gestational age was 38.4 weeks (range, 27-43); the median gestational ages for mothers with and without RA were 38.3 weeks (range, 27-43) and 38.5 weeks (range, 29-41), respectively.

According to the authors, one strength of the study was its homogenous population: More than 98% of Taiwan’s residents are of Chinese Han ethnicity. Although this may have minimized the possibility that race affected the results, it may have also limited whether the results can be generalized to other ethnic groups.

Another strength is its large sample size. One important limitation of the study was that the NHIRD did not include complete information about RA medications that were taken during pregnancy, a potentially important confounding factor. A second limitation was that study participants were not differentiated according to RA severity.

Comorbidities May Solidify Disability

Comorbidities, rather than the effects of inflammatory joint disease, may be why some patients with rheumatoid arthritis remain functionally disabled despite effective treatment for their arthritis.

This study included 380 RA patients from an outpatient clinic with a wide range of disease activity, disease duration, and comorbid conditions, according to Dr. Helga Radner and her associates from the Medical University of Vienna.

The study was based on serial measurements taken from more than 1,600 patient visits between June 2007 and July 2008. Physical disability was measured using the HAQ (Health Assessment Questionnaire) disability index. The Centers for Disease Activity Index (CDAI), adjusted for age, was used to assess comorbidity burden, with differing weights given to comorbid conditions such as myocardial infarction (weight = 1), diabetes mellitus with complications (weight = 2), or AIDS (weight = 6).

Analysis of variance indicated a consistent increase in physical disability with increasing comorbidity burden (P<.01), even after adjustment for disease activity, sex, or disease duration (Ann. Rheum. Dis. 2010 [doi:10.1136/ard.2009.118430]).

The influential effect of comorbidities on functional disability in patients with RA was seen across all levels of RA disease activity, as measured by the CDAI (Clinical Disease Activity Index). For RA patients with low or moderate/high disease severity, having one or more comorbidities added to the levels of functional disability, “reflecting the well-known contribution of [RA] disease activity to impairment of physical function,” Dr. Radner and her associates said. However, even patients who were thought to be in remission for RA showed significant increases in functional disability when comorbidities were present (P less than .01).

“Based on our analyses, the average HAQ in a group of patients with several comorbid conditions would be somewhere around 0.6, even if the best possible treatment was used. This floor effect of functional improvement is an important aspect when evidence of therapeutic efficacy needs to be provided, such as for reimbursement of interventions,” the authors wrote.

Disclosures: Dr. Radner and her associates report having no conflicts of interest.