Incidence of RA Makes a Postpartum Surge

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By linking two Norwegian national data registries, investigators confirmed previous findings that the incidence of rheumatoid arthritis is increased in women in the 2 years following delivery, compared with the subsequent 2 years post partum. The results also showed an elevated incidence of other chronic arthritides in the first 2 postpartum years, according to a report by Dr. Marianne Wallenius from the department of rheumatology of St. Olav's Hospital in Trondheim, Norway.

These studies may contribute to a better understanding of the fundamental question of why one person gets RA and another does not," noted Dr. Radboud J.E.M. Dolhain of Erasmus University Medical Centre, Rotterdam, the Netherlands, in an accompanying editorial (Ann. Rheum. Dis. 2010;69:317-8).

One hypothesis is that pregnancy exerts a protective effect on RA and other arthritides, which then disappears after delivery, allowing disease to flare. However, this study did not look at incidence during pregnancy. More epidemiologic data are needed "to determine whether this is a true increased incidence or whether rather the incidence of RA and other forms of arthritis is postponed to after delivery," according to Dr. Dolhain.

VITALS

Major Finding: The study confirmed that the incidence of RA increases during the first 2 years post partum.

Data Source: NOR-DMARD Registry and the Medical Birth Registry of Norway.

Disclosures: Research was supported by the liaison committee between the Central Norway Regional Health Authority and the Norwegian University of Science and Technology. The NOR-DMARD registry is supported by all makers of biologic drugs for RA in Europe.

The investigators took a unique approach to studying the incidence of RA and other chronic arthritides following pregnancy. They linked data from a registry of people with inflammatory arthropathies who were taking disease-modifying antirheumatic drugs (the NOR-DMARD Registry) with the Medical Birth Registry of Norway that has recorded all births in Norway since 1967. The investigators were able to locate 293 women with arthritis whose disease was first diagnosed after delivery. Of these, 183 were diagnosed with RA and 110 with other chronic arthritides (OCA), including 51 with psoriatic arthritis, 14 with ankylosing spondylitides, and 45 with unspecified arthritis.

Of those with RA, 38% (69 women) were diagnosed in the first 2 years post partum, compared with 28% (31 women) who were diagnosed with OCA. The results were not significantly different ($P = .09$).

RA incidence peaked in the first 2 years after pregnancy, compared with the subsequent 2 years for those who were diagnosed solely with RA (incident rate ratio, 1.73; $P = .01$) or for the entire RA-plus-OCA group (IRR, 1.44; $P = .04$) after all pregnancies were considered, but not for those who were diagnosed only with OCA (IRR, 1.05; $P = .86$). Investigators made similar findings when they limited the group to those who were diagnosed only after the first pregnancy (Ann. Rheum. Dis. 2010;69:332-6).

The investigators suggested that the lack of statistical significance for the OCA group may be attributed to the group's being too small, with rather wide confidence intervals around the IRR estimate. One reason the OCA group may have been small was that the NOR-DMARD Registry included patients who had developed a level of disease that required treatment with DMARDs and/or biologic agents, thereby excluding patients with milder disease who did not require such medication. ■

Rheumatoid Arthritis May Increase Risk for Adverse Pregnancy Outcomes

Pregnant women with rheumatoid arthritis face an increased risk of adverse obstetric outcomes, and they deserve 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 preeclampsia (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.2008.105262]).

"Our findings suggest a need for more intensive prenatal care among pregnant women with RA. In addition, early intervention should be considered to counter potential adverse obstetric outcomes for pregnant women with RA," according to Herng 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.

VITALS

Major Finding: Mothers with rheumatoid arthritis 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.

Data Source: From two large databases, researchers selected a sample of women who gave birth (1,912 with RA and 9560 controls).

Disclosures: The researchers made no disclosures.

Women with chronic diseases such as hypertension or diabetes that could increase the risk of adverse pregnancy outcomes were excluded.

The two groups of women did not differ significantly in their sociodemographic variables such as marital status, level of education, and household income.

The 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 mean 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 RA 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 Charlson Comorbidity Index (CCI), 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 less than .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.*