ACPA-Negative RA Up in First Postpartum Year

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London — Women who give birth to a child face a twofold increased risk of incident anticyclic citrullinated peptide (anti-CCP)-negative rheumatoid arthritis, compared with nulliparous women, but they have no increased risk for developing ACPA-positive disease, based on a large epidemiologic study.

The finding is consistent with a report last year from a Norwegian study that women face about a twofold increased risk for incident rheumatoid arthritis (RA) during the first 2 years after giving birth to a child, compared with their RA risk 2-4 years post partum (Ann. Rheum. Dis. 2010;69:332-6). The reason for the new analysis, which included more than 1,200 cases and controls, showed a different relationship between partum and the onset of ACPA-positive RA and ACPA-negative RA, according to Camilla Bengtsson, Ph.D.

"There is only an association with ACPA-negative disease, and which biological mechanisms are involved remains to be elucidated," said Dr. Bengtsson, a researcher at the Karolinska Institute in Stockholm. The way in which this finding might apply to practice also remains unclear, she added.

Dr. Bengtsson’s analysis failed to show an increased incidence of any form of RA in women who were more than a year out from their deliveries.

The study used data and blood specimens from Swedish women aged 18-50 years who were enrolled in the Epidemiological Investigation of RA (EIRA) study during 1996-2006. Among the 9,417 women who contributed to EIRA, 547 (95%) agreed to participate and provide blood specimens, and among the control women in the study, 658 (81%) provided blood. The analysis divided the cases and controls into subgroups based on their partner’s status. For example, women with partner RA had 236 who had given birth and 187 who had not. The parous women included 226 with ACPA-positive RA and 134 with the ACPA-negative form. Among the nulliparous women with RA, 127 had the ACPA-positive form and 60 were ACPA negative.

Among the controls with no RA, 431 had given birth and 227 had never given birth.

The case-control analysis showed that among all women with incident RA, birth was not a risk factor. However, the new RA diagnosis had not statistically significant relationship with RA onset. However, among women who developed ACPA-negative RA, their risk spiked by a statistically significant, 2.4-fold rate during the year following partum, compared with nulliparous women. In contrast, the incidence of ACPA-positive RA showed no significant relationship to partum status during the preceding year.

Further analysis examined the timing between delivery and diagnosis of ACPA-negative RA more closely. Again, the analysis showed that during the year following giving birth, women faced a statistically significant, 2.4-fold elevated risk for incident ACPA-negative RA, compared with nulliparous women. During the 2-10 years following giving birth, the rate of incident ACPA-negative RA dropped to a 50% higher risk, compared with nulliparous women, but this difference was not considered statistically significant. And women more than 4 years postpartum were not included in the analysis.

The most recent delivery had a risk for incident ACPA-negative RA identical to the nulliparous women, Dr. Bengtsson reported.