

“This study specifically highlights the potential of naturally-induced hormones in protecting individuals from developing rheumatoid arthritis in the future. Furthermore, it adds to the growing body of evidence in favor of breast feeding and its positive health implications,” said Dr. Keshavarz.

## Rheumatoid Arthritis Disease Activity is Significantly Reduced During Pregnancy

Results of a prospective nationwide study (the PARASTUDY) presented by Yaël de Man, MD, Erasmus MC University Medical Center, Rotterdam, the Netherlands, demonstrated that rheumatoid arthritis (RA) disease activity is significantly reduced during pregnancy.

In the first prospective study conducted among women with RA, patients were monitored for disease activity scores (DAS) throughout their pregnancy and for 6, 12, and 26 weeks postpartum. DAS were calculated using the DAS28 and the level of C-reactive protein (CRP) with 3 variables (DAS28-CRP-3). Remission was defined as DAS28 <2.6.

The change in DAS28 between the 1<sup>st</sup> and 3<sup>rd</sup> trimester was used to categorize response using the EULAR response criteria. The change between the DAS28 at 6 weeks and 12 or 26 weeks postpartum was used to determine if a severe or moderate flare was present using inverted EULAR response criteria. The changes in DAS28 were tested for significance by a linear mixed model.

The study population was comprised of 124 women (mean age 31.6 years; median disease duration 5.2 years). Seventy-one percent (71%) of patients were RF positive, 61% were anti-CCP positive, and 72% were erosive. The mean pregnancy duration was 38 weeks and 6 days.

During pregnancy 11% of patients were considered good responders, 40% were at least moderate responders, and 60% were non-responders as indicated by the change in DAS28 between the 1<sup>st</sup> and 3<sup>rd</sup> trimesters.

The mean DAS28 decreased significantly by the 3<sup>rd</sup> trimester (vs prior to conception or to the 1<sup>st</sup> trimester (p=0.003), indicating an improvement of RA during pregnancy. Remission was seen in 17% of patients as early as the 1<sup>st</sup> trimester; 26% of patients were in remission by the 3<sup>rd</sup> trimester.

The DAS28 increased significantly by 12 weeks postpartum (vs 6 weeks postpartum) indicating a relapse of disease activity. Postpartum, 64% of patients remained relatively stable or improved. Only 36% of patients experienced at least moderate flare and only 5% a severe flare. Postpartum, the number of patients in remission decreased to 17% at 12 weeks. With medication, however, the number of patients in remission at 26 weeks postpartum increased to 20%.

DMARD use was lowered before pregnancy, remained stable during pregnancy (52% of patients), but increased postpartum (82% of patients), mainly due to methotrexate and biologics use.

Dr. de Man noted, “...the existence of a complex interaction between female hormones during pregnancy and the epidemiology of RA may contribute to the development of new prevention and treatment approaches in the future”.

## Strontium Ranelate Reduces the Risk of Vertebral Fracture in Postmenopausal Women with Severe Osteoporosis

Vertebral fractures in postmenopausal women (<65 years of age) with osteoporosis can lead to acute and chronic back pain, loss of weight, reduced pulmonary function, back related disability, depression, and a sustained decrease in quality of life. Early fractures occurring within the first 10 years after menopause are especially troublesome since they are a major risk factor for further additional fractures.

Strontium ranelate is an anti-osteoporotic treatment with a unique mode of action which reduces bone resorption while promoting continued bone formation [Marie PJ et al. *Calcif Tissue Int* 2001]. It has been shown to be effective in reducing the risk of vertebral fractures in two phase 3 studies. In the Spinal Osteoporosis Therapeutic Intervention (SPOTI) study of 1,649 postmenopausal women (mean age 69.4±7.2) with osteoporosis, strontium ranelate 2g/day produced a risk reduction for vertebral fracture of 49% in the first year and 41% over 3 years [Meunier PJ et al. *N Engl J Med* 2004]. The Treatment of Peripheral Osteoporosis (TROPOS) study was designed to examine the effect of strontium ranelate on non-vertebral fractures in postmenopausal women with osteoporosis (mean age 76.7±8). Three thousand six hundred and forty (3,640)