

P615

No Effect on Infant Birth Weight and Head Circumference After Exposure to Interferon Beta Prior to Or During Pregnancy: A Register-Based Cohort Study in Finland and Sweden Among Women with Multiple Sclerosis

Pia Vattulainen¹, Sarah Burkill², Yvonne Geissbuehler³, Meritxell Sabidó⁴, Catrinel Popescu⁵, Kiliana Suzart-Woischnik⁶, Kjell-Morten Myhr⁷, Scott Montgomery², Pasi Korhonen¹

¹StatFinn and EPID Research (an IQVIA company), Espoo, Finland, ²Karolinska Institute, Stockholm, Sweden, ³Novartis Pharma AG, Basel, Switzerland, ⁴Merck KGaA, Darmstadt, Germany, ⁵Biogen Ltd, Maidenhead, United Kingdom, ⁶Bayer AG, Berlin, Germany, ⁷Haukeland University Hospital, Bergen, Norway

Background: Women with multiple sclerosis (MS) are in most cases diagnosed and treated at childbearing age. Some studies with limited sample size suggested that MS and interferon-beta (IFN β) exposure might affect birth weight and head circumference. Prevalence of these two measures at birth was determined in IFN β -exposed and unexposed pregnant women with MS from health registers in Finland and Sweden.

Method(s): Health register data from Finland (1996-2014) and Sweden (2005-2014) were used to study women with MS: 1)dispensed only IFN β within 6-months prior to date of last menstrual period or during pregnancy (IFN β -exposed) and 2)without any dispensed MS disease modifying drugs (unexposed). Prevalence (95% confidence interval [CI]) of the following birth outcomes was described for IFN β -exposed and unexposed women: low birth weight for live births (<2500g), low head circumference for infants with full-term live birth (≥ 37 gestational weeks) and small or large for gestational age (SGA and LGA respectively). For SGA, LGA, and head circumference, national gestational age and sex-specific national references were used. No adjustments for potential confounding factors were performed.

Result(s): Among 666 IFN β -exposed and 1330 unexposed live births, the prevalence of birth outcomes was similar between IFN β -exposed vs unexposed. Prevalence of low birth weight (95%CI) was 3.9%(2.6-5.7) among IFN β -exposed and 4.8%(3.7-6.1) among unexposed live births. Among 619 IFN β -exposed and 1219 unexposed full-term live births, prevalence of low head circumference (95%CI) was 1.9%(1.0-3.4) vs 1.1%(0.6-1.8) respectively. Comparing the IFN β -exposed vs unexposed, SGA (95%CI) was 2.1%(1.2-3.5) vs 2.0%(1.3-2.9), and LGA (95%CI) was 0.8%(0.2-1.7) vs 0.8%(0.4-1.5).

Conclusion: Data from Finnish and Swedish health registers showed no evidence that IFN β exposure before and during pregnancy affected infant birth weight and head circumference.