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Selective serotonin reuptake inhibitors use in pregnancy: a risk assessment study using administrative pharmaceutical data

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Background

Antidepressant management with Selective Serotonin Reuptake Inhibitors (SSRI) during pregnancy is associated with risks of congenital malformations and adverse pregnancy outcomes.

Main aim

We examined the incidence of SSRI use during pregnancy using Australian administrative pharmaceutical data linked to medical service data detailing antenatal consultations to assess pregnancy risk at current levels of treatment.

Method

A published data source from the Australian Pharmaceutical and Medical Benefit Schemes was used to identify pregnant women starting new onset treatments with SSRI medications during the provision of antenatal services. A longitudinal profile of SSRI incidence in the pre, peri and post pregnancy periods were constructed to define incident SSRI use. The potential increased burden from adverse pregnancy outcomes was calculated using estimates of risks from the literature.

Results

From 2005-2011, 40,778 women were identified to have started de novo SSRI treatments within 10 years of pregnancy (n=172,951). The prenatal monthly incidence of SSRI prescriptions was 25 per 1000 women in 2005 and 7.5/1000 in 2011. During pregnancy, this incidence fell to 7.5 and 4/1000 women in years, and rose above perinatal levels to between 13 and 33/1000 women one year postnatally (X2 p<.001). At these incidence rates, an estimated 2400 women per year receive SSRI's during pregnancy. In comparison, with non-depressed pregnant women this potentially results in 10 further cardiovascular defects, 94 pre-term births, and 1 still birth annually.

Conclusion

This pharmaco-surveillance study has demonstrated continued use of SSRIs in Australian women of childbearing age but diminishing usage during pregnancy. A small number of women continue to be prescribed SSRI during the prenatal period in Australia with risks of adverse pregnancy outcomes.

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