Antidepressant use during first trimester not associated with risk of major congenital malformations

**QUESTION**

**Question:** Does duration of antidepressant use during the first trimester of pregnancy increase the risk of major congenital malformations?

**People:** 2329 women, pregnant between 1 January 1998 and 31 December 2002, meeting the following inclusion criteria: one diagnosis of psychiatric disorder before pregnancy (ICD-9); antidepressant use for 30 days or more in the year prior to pregnancy; aged 15–45 years at the beginning of pregnancy; and live or still born at the end of pregnancy. Women were identified using three administrative databases of the Province of Quebec (RAMQ, MED-ECHO and ISQ databases). Mailed questionnaires were used to elicit information on confounding variables such as income, education, ethnicity and lifestyle factors. Exclusion criteria: women with mental retardation, certain psychotic or non-psychotic conditions; abortion and miscarriage.

**Setting:** Province of Quebec, Canada; recruitment January 1998–December 2002.

**Risk factors:** Exposure to antidepressants during the first trimester of pregnancy (0–14 weeks) was assessed for cases and controls. Women filling prescriptions for at least one antidepressant during the first trimester or before the first day of gestation where duration of treatment lasted into the first trimester were included in the exposure group. Exposure was further classified by duration of use (defined as the number of days exposed in the first trimester: 0 days, 1–30 days, 31–60 days and ≥61 days); therapeutic class and co-exposures. Analyses were adjusted for maternal age, welfare, urban dweller, living alone, comorbidities, hypertension and diabetes before and during pregnancy, gender of baby, prenatal visits and year of pregnancy.

**Outcomes:** Cases defined as any major congenital malformation diagnosed during the first year of the offspring’s life. Controls defined as women with infants with no major congenital malformations.

**METHODS**

**Design:** Case control study.

**Follow-up period:** Retrospective assessment of 21 month period (pregnancy plus offspring’s first year of life).

**MAIN RESULTS**

At least one major congenital malformation was identified in 189 (8%) infants, with 265 malformations being reported in total. Using an antidepressant during the first trimester was not associated with a major congenital malformation (adjusted OR 1.10, 95% CI 0.75 to 1.62). There was also no association with risk of congenital malformation in analyses of different durations of exposure to an antidepressant during the first trimester (1–30 days’ exposure: adjusted OR 1.23, 95% CI 0.77 to 1.98; 31–60 days’ exposure: adjusted OR 1.03, 95% CI 0.68 to 1.69; ≥61 days’ exposure: adjusted OR 0.92, 95% CI 0.50 to 1.69). No association was found between major congenital malformations and class of antidepressant used during the first trimester.

**CONCLUSIONS**

Offspring of women with psychiatric disorders taking antidepressants during the first trimester of pregnancy are not at increased risk of major congenital malformations.

**ABSTRACTED FROM**


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