

**114. Paroxetine and Congenital Malformations: a Prospective Comparative Study**

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**Background:** Recent studies suggested that paroxetine exposure during early pregnancy may increase the rate of major malformations, particularly cardiac malformations. We report the results of a French multicentre prospective study.

**Objective:** To assess the risk of major congenital malformations in children or fetuses exposed to paroxetine during the first trimester of pregnancy.

**Methods:** Women exposed during early pregnancy (i.e. 3 to 10 weeks after the last menstrual period) were enrolled by the 25 participating centers between 1994 and 2005. Maternal data and detailed history of drug exposures were collected during the first contact for individual risk counseling and follow-up of pregnancies were prospectively documented. These data were compared to an equal number of control women who were unexposed or exposed to a non-teratogenic agent during organogenesis and submitted to the same follow-up. Women were matched for gestational age at the time of request.

**Results:** Data were obtained on 683 pregnant women exposed to paroxetine. Exposed women were older than controls (32.0 vs 30.1 years,  $p < 0.05$ ). The mean gestational age at inclusion was not significantly different between the exposed and control groups ( $10.6 \pm 6.7$  weeks of pregnancy vs  $11.6 \pm 6.7$  weeks). The pregnancy outcomes were: spontaneous abortion (11.7% vs 4.5%, relative risk: 2.6, 95% CI: 1.8-4.3), voluntary abortion (8.9% vs 2.9%, relative risk: 3.1, 95% CI: 1.9-5.4), medical abortion (1.9% vs 0.7%) and live birth (77%, 5 sets of twins vs 91.8%, 11 sets of twins) in the exposed and control groups, respectively. Other outcomes in the exposed group consisted of one extra-uterine pregnancy and two late fetal deaths. After exclusion of chromosomal defects (8 paroxetine and 4 controls), the rate of major malformations among newborns or fetuses with pathological examination was 12/535 (2.2%) and 10/631 (1.6%) in the exposed and control groups, respectively (relative risk: 1.4, 95% CI: 0.6-3.3). As regards cardiac defects, there were 3 major malformations (1 aortic coarctation, 1 transposition of the great vessels with other cardiac anomalies in a child with maternal history of diabetes mellitus, 1 mitral and tricuspid valve anomalies in a child with cystic fibrosis) and 1 minor malformation in the exposed group compared to 3 major malformations (aortic coarctation in one and membranous ventricular septal defects in 2) and 1 minor malformation in the control group.

**Conclusion:** Our results do not suggest that paroxetine increases the rate of major or cardiac malformations.