SSRIs in pregnancy: small risk of birth defects?

Selective serotonin-reuptake inhibitors (SSRIs) were introduced as a new class of antidepressant drugs in the late 1980s. Recently, there have been reports of increased risk of birth defects associated with the use of some SSRIs in early pregnancy, but now two reports in one issue of the New England Journal of Medicine suggest that the risk is small (Carol Louik and colleagues. New England Journal of Medicine 2007;356:2675–83; Sura Alwan and colleagues. Ibid: 2684–92; see also Editorial. Ibid: 2732–3).

The Slone Epidemiology Center Birth Defects Study began in 1976 and includes areas around Boston, Philadelphia, Toronto, San Diego and part of New York State. The analysis included 9849 infants with birth defects and 5860 infants without birth defects born between 1993 and 2004. The use of SSRIs overall in the first trimester was not associated with significantly increased risks of defects previously associated with SSRI use (craniosynostosis, omphalocele or heart defects). Among individual SSRIs there were significant associations between use of sertraline and risk of omphalocele or septal defect, and use of paroxetine and risk of right ventricular outflow tract obstruction defects. The absolute risks, however, were small.

The National Birth Defects Prevention Study includes data for 9622 infants with birth defects and 4092 control infants born between 1997 and 2002 in eight US states. There were no significant associations between overall SSRI use and congenital heart defects or most other defects. There were statistically significant associations between SSRI use and anencephaly, craniosynostosis and omphalocele, but again the absolute risks were small.

Some SSRIs may increase the risk of some birth defects if taken in early pregnancy, but the absolute risks are small.