The number of multiple births affected by congenital anomalies has doubled since the 1980s

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The number of congenital anomalies, or birth defects arising from multiple births has almost doubled since the 1980s, suggests a new study published today (6 February) in *BJOG: An International Journal of Obstetrics and Gynaecology*.

The study investigates how the change in the proportion of multiple births has affected the prevalence of congenital anomalies from multiple births, and the relative risk of congenital anomaly in multiple versus singleton births.

This study, led by the University of Ulster over a 24-year period (1984 – 2007) across 14 European countries using data from birth registries, recorded 5.4 million births. Data from the European Surveillance of Congenital Anomalies (EUROCAT) was also used which includes congenital anomaly cases among live births, fetal deaths from 20 weeks gestation and terminations of pregnancy in fetal anomaly.

Results showed that within the European population studied, there was approximately a 50% rise in the multiple birth rate from 1984 to 2007. Of the 5.4 million births during the study period, 3.0% of babies were from multiple births. Of the total number of major congenital anomaly cases (148,359), 3.83% were from multiple births.

The study found that the prevalence of congenital anomalies from

multiple births increased from 5.9 (1984 – 1987) to 10.7 (2004 – 2007) per 10,000 births.

Furthermore, the risk of congenital anomalies was 27% higher in multiple than singleton births, with this risk increasing over time. The authors indicate that this increase may be related to ART rather than multiple birth status.

Multiple births with congenital anomalies were more than twice as likely to be stillbirths compared to singleton births (4.6% compared to 1.8%) and more than twice as likely to be early neonatal deaths (5.45% compared to 2.51%). However, cases from multiple pregnancies were less likely to be terminations of pregnancy for fetal anomaly.

Professor Helen Dolk, from the Centre for Maternal Fetal and Infant Research, University of Ulster and co-author of the study said:

"The co-occurrence of multiple birth and congenital anomaly among live borns places particular demands on parents and health services. This may be even more relevant for the one in nine affected twin pairs where both babies have a congenital anomaly.

"The increase in multiple birth rates may be explained by changes in maternal age and increased use of ART. It is clear that more research needs to be done to determine the contribution of ART to the risk of congenital anomalies in multiple births."

Dr Breidge Boyle of the University of Ulster, co-author of the study, added:

"The adoption of a single embryo transfer (SET) policy may not reduce the number of babies with congenital anomalies but it may affect the pregnancy course and neonatal outcome and reduce extra demands

placed on services and on parents by co-occurrence of multiple birth and congenital anomaly."

"John Thorp, *BJOG* Deputy-Editor-in-Chief added: "This increase in babies who are both from a multiple pregnancy and affected by a congenital anomaly has implications for pre and post natal service provision.

"Extra specialised help should be put in place for affected families, recognising than there are now nearly double as many affected families than there were 20 years ago."

More information: B. Boyle, R. McConkey, E. Garne, M. Loane, MC. Addor, MK. Bakker, PA. Boyd, M. Gatt7, R. Greenlees, M. Haeusler, K. Klungsøyr, A. Latos-Bielenska, N. Lelong, R. McDonnell, J. Métneki, C. Mullaney, V. Nelen, M. O'Mahony, A. Pierini, J.Rankin, A. Rissmann, D. Tucker, D. Wellesley, H Dolk. Trends in the prevalence, risk and pregnancy outcome of multiple births with congenital anomaly: a registry based study in 14 European countries 1984-2007. *BJOG* 2013.

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