BIRTH DEFECTS IN CHILDREN FROM MULTIPLE PREGNANCIES IN THE CZECH REPUBLIC

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Aim and type of study: A retrospective study with data analysis of postnatal occurrence of selected types of congenital anomalies in children from multiple pregnancies in the Czech Republic in 1994 – 2004 and a comparison of these data to incidences of birth defects in children from single pregnancies.

Material and methods: A retrospective epidemiological incidences analysis of selected types of congenital anomalies in the Czech Republic during 1994 – 2004 period according to pregnancy multiplicity. A contribution of these cases to total incidences was also analyzed.

Results: In 1994 – 2004, there was a total of 1 030 069 children born in the Czech Republic, out of which more than 30 000 from multiple pregnancies. From a group of more than 33 000 children born with a birth defect in this period, 1 384 were from multiple pregnancies (24.14 % mono and 75.86 % dzygotic twins). Totally, 15 cases of anencephaly was collected along with other defects: spina bifida 173, encephalohydronephrosis 45, congenital hydrocephalus 247, omphalocele 120, gastroschisis 62, oesophageal defects 241, anorectal anomalies 320, diaphragmatic hernia 193, renal agenesis/hypoplasia 306, cystic kidney 375 and Down syndrome 650. As a control group, data on 15 399 twin pregnancies from the same period were used. In the period under the study, the contribution of multiple pregnancies was steadily increasing in the Czech Republic (increasing mean maternal age, increasing use of ART techniques etc.) bringing also more children with birth defects from these pregnancies.

Conclusion: Congenital anomalies in children from multiple pregnancies present a relatively higher contribution to total number of congenital anomalies compared to single pregnancies with a different spectrum of types of defects.

Supported by IGA MZ CR Grant # NR/9027 - 3.

Birth defects in singletons and twins in the Czech Republic, 1994 – 2004

Incidence of anencephaly by pregnancy rates in the Czech Republic, 1994 – 2004

Incidence of spina bifida by pregnancy rates in the Czech Republic, 1994 – 2004

Incidence of omphalocele by pregnancy rates in the Czech Republic, 1994 – 2004

Incidence of neural tube defects by pregnancy rates in the Czech Republic, 1994 – 2004

Incidence of gastroschisis by pregnancy rates in the Czech Republic, 1994 – 2004

Incidence of abdominal wall defects by pregnancy rates in the Czech Republic, 1994 – 2004

Incidence of Patau syndrome by pregnancy rates in the Czech Republic, 1994 – 2004

Incidence of Edwards syndrome by pregnancy rates in the Czech Republic, 1994 – 2004

Incidence of Down syndrome by pregnancy rates in the Czech Republic, 1994 – 2004

Poster Number: PO113

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