

TUMOR OCCURRENCE IN CHILDREN WITH BIRTH DEFECTS IN THE CZECH REPUBLIC

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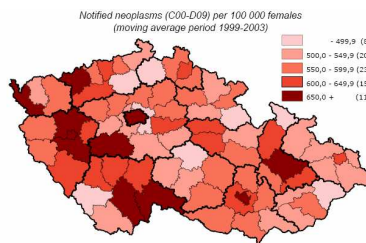
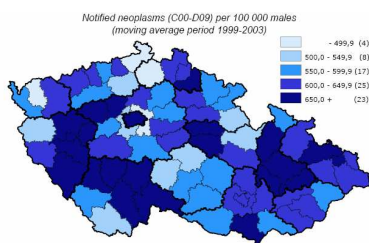
Aim and type of study: A retrospective study of tumor occurrence in children born with a birth defect in the Czech Republic. The aim of the study is to chart mutual connections between a birth defect and tumor occurrence in children population aged 0 – 15 yrs.

Material and methods: A retrospective analysis of data from the National Birth Defect Register and National Oncological Register in the Czech Republic in the 1994 – 2003 period. In 1994 – 2003, there was a total of 932 405 children born in the Czech Republic, out of that number 30 775 with a congenital anomaly. In the National Oncological Register 876 tumors in children aged 0-15 yrs were registered in the same period.

Results: Out of the total number of children with a birth defect we found 73 children in our study, who developed a tumor disease during their life. Out of this number, 42 were boys and 31 girls (M/F ratio 1.36). Out of 73 children 19 were with more than 1 birth defect and 2 with more than 1 type of tumor disease. Mean maternal age of these 73 children was 26.7 yrs and a mean birthweight 3 299.8 g.

Conclusion: The results of our study revealed a higher incidence of leucemias and brain tumors in the group of 73 children with birth defect/tumor coincidence. Out of the birth defect spectrum facial clefts, central nervous system and digestive system defects and clinical syndromes were more prevalent.

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Czech Republic, 1994 – 2003 period

Total births: 1 030 069

Total births with congenital malformations: 30 775

17 789 boys

12 986 girls

M/F 1.36

Total tumors in children aged 0-15 yrs: 876

494 boys

377 girls

M/F 1.31

Number of tumors in children with birth defects: 73

42 boys

31 girls

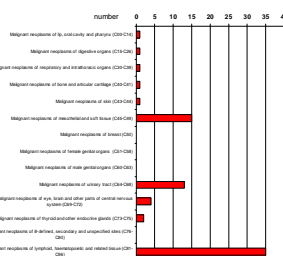
M/F 1.35

Total of 75 cases of tumors in children with birth defects

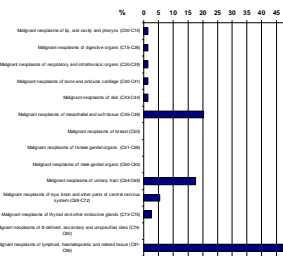
1 diagnosis 71 cases
2 diagnoses 2 cases

Totally 73 children

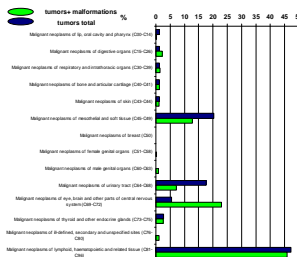
Total number of tumors in children 0 – 15 yrs with birth defects, Czech Republic, 1994 - 2003



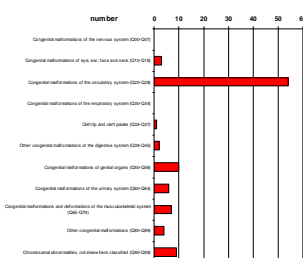
Percentage of tumors in children 0 – 15 yrs with birth defects, Czech Republic, 1994 - 2003



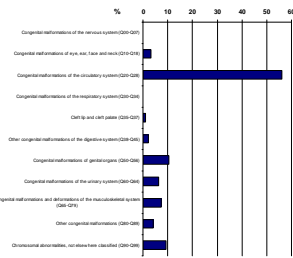
Comparison of total number of tumors in children 0 – 15 yrs with birth defects, Czech Republic, 1994 - 2003



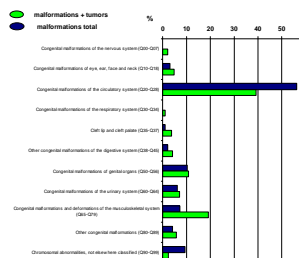
Total number of birth defects in children 0 – 15 yrs with tumors, Czech Republic, 1994 - 2003



Percentage of birth defects in children 0 – 15 yrs with tumors, Czech Republic, 1994 - 2003



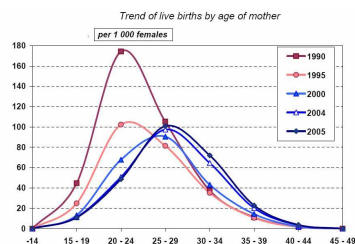
Comparison of total number of birth defects in children 0 – 15 years with tumors, Czech Republic, 1994 - 2003



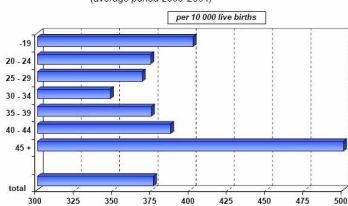
Total of 96 cases of birth defects with tumors

1 diagnosis 81 cases
2 diagnoses 11 cases
3 diagnoses 5 cases
4 diagnoses 1 case

Totally 73 children



Live births with congenital malformation by age of mother (average period 2000-2004)

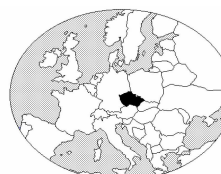


Mean maternal age of these 73 children was 26.7 yrs and a mean birthweight 3 299.8 g.

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