Birth Defects Associated With Childhood Cancers

Kids born with nonchromosomal defects, such as congenital heart disease, have more than twice the risk for some childhood cancers.

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About 3 percent of American babies are born with a birth defect, according to the Centers for Disease Control and Prevention. But those with nonchromosomal birth defects are at a higher risk for certain childhood cancers, suggest findings presented at the American Association for Cancer Research Annual Meeting, reports Healio.

For the study, scientists gathered registry data from Texas, Michigan, North Carolina and Arkansas from 1992 to 2013. Information from birth certificates, birth defect registries and cancer registries was used to evaluate associations between 31 kinds of childhood cancers and 60 birth defects. Researchers found 517,548 children with nonchromosomal birth defects and 14,775 children with cancer.

After adjusting for certain factors, study findings showed that children with nonchromosomal birth defects were more than twice as likely to be at risk for cancer. There were also strong associations between certain cancers and certain birth defects. For example, children with central nervous defects had a higher risk of developing astrocytoma, a type of brain cancer.

Those with congenital heart disease, such as right ventricular outflow tract defects and left ventricular outflow tract defects, were at a greater risk for neuroblastoma, a cancer that starts in early nerve cells. And hepatoblastoma, the most common liver cancer in children was lined to ventrical septal defects (a heart defect) and craniosynostosis (an abnormal head shape).

“Childhood cancers are rare events so, even though the risks I presented were pretty dramatic in some instances, keep in mind the majority of the birth defects studied will not lead to childhood cancer,” said Jeremy M. Schraw, PhD, a postdoctoral fellow at the Texas Children’s Cancer Hospital and Baylor College of Medicine.

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