CORRESPONDENCE

Comment on "Long-term outcomes of children with umbilical vein varix diagnosed prenatally"

We read with interest the article by Melcer *et al.*[1] describing the postnatal neurodevelopmental outcome of fetuses with intra-abdominal umbilical vein varix (UVV). The authors report that developmental delay may be present in as much as 42% of ex-UVV children.

However, there are some aspects of the study design who may have introduced a bias in their results. Firstly, the controls were not matched for the family's socioeconomic status (which is an important confounder in long-term neurodevelopment studies), and the high incidence of preterm delivery (72% in the study group) may have different causes in cases and controls.

Secondly, a telephone questionnaire for both the study and the control group, based on the Ages and Stages Questionnaire (ASQ), was used as a screening tool to select children for in-depth neurodevelopmental assessment. However, the ASQ is supposed to be filled in by parents, or by someone who interacts with the child. In particular, the ASQ instructions highlight some important aspects of test administration: "Try each activity with your baby before marking a response", "Make completing this questionnaire a game that is fun for you and your child", "Make sure your child is rested and fed".[2] How can these requirements be achieved with a phone interview? Actually, of 10 children with UVV with abnormal ASQ results who were formally assessed, only four were confirmed to have some form of delay. Only one child in the control group had formal assessment.

Finally, there is increasing evidence that conditions affecting fetal cardiovascular function, for example, congenital heart disease, may have a detrimental effect on neurodevelopmental outcomes.[3] However, it is reasonable to think that not just the mere presence of a dilated umbilical vein, but some other mechanism such as circulatory disturbance and thrombus formation may cause brain damage, which eventually results in developmental delay. The current evidence does not provide us with any data on such mechanisms.

In conclusion, although Melcer and colleagues should be congratulated for their observation, the estimate of the risk of developmental delay reported in their article (42% in UVV vs 4% in controls) may not be accurate, and should not be used in parental counseling as it could even lead to unwarranted terminations of pregnancy.

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