Medical Xpress

Pediatric anesthesia does not affect development outcomes

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(HealthDay)—Young children who have surgical procedures that require

general anesthesia do not have an increased risk for adverse child development outcomes, according to a study published online Nov. 5 in *JAMA Pediatrics*.

James D. O'Leary, M.D., from The Hospital for Sick Children in Toronto, and colleagues examined the correlation between surgical procedures that require general anesthesia before primary school entry and child development in a retrospective sibling-matched cohort study, including sibling pairs aged 5 to 6 years with the same birth mother. Participants completed the Early Development Instrument (EDI) population-based measure of child development that assessed readiness to learn in five major domains. Data were included for 2,346 sibling pairs with only one sibling exposed to surgery.

The researchers found that after adjustment for confounding factors, exposed and unexposed children had no significant differences in early developmental vulnerability (22.6 versus 20.0 percent; adjusted odds ratio, 1.03; 95 percent confidence interval, 0.98 to 1.14; P = 0.58). There were also no significant differences for each of the five major EDI domains (language and cognitive development; physical health and well-being; social knowledge and competence; emotional health and maturity; and communication skills and general knowledge).

"This sibling cohort mitigated for unmeasured biological vulnerability and home environmental influences on child development, and these findings further support that anesthesia exposure in early childhood is not associated with detectable adverse child development," the authors write.

More information: Abstract/Full Text

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