

Head Circumference Is Correlated With Global Intelligence 7 Years After Neonatal Arterial Ischemic Stroke

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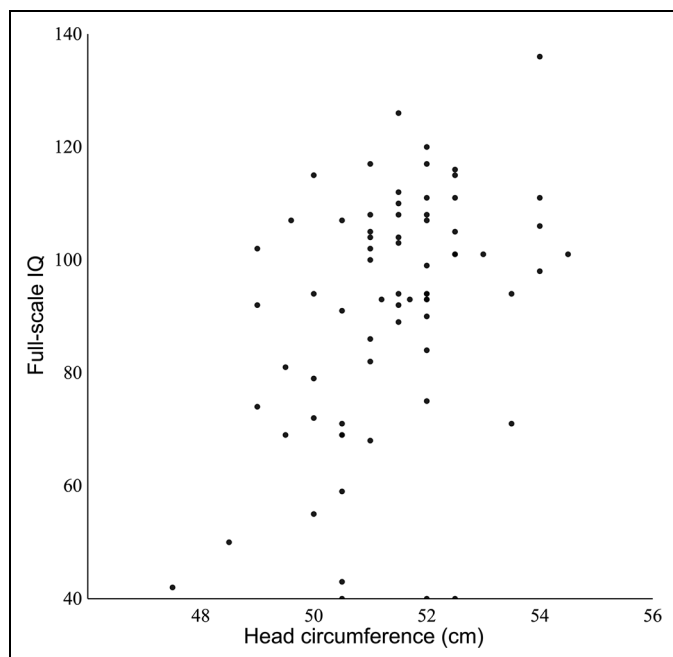


Figure 1. Head circumference and full-scale IQ at 7 years of age. (IQ, Intelligence Quotient.)

We read with great interest the article of Leong et al¹ demonstrating that microcephaly is associated with poor developmental outcomes in children with perinatal ischemic stroke.

We hypothesized that head circumference is correlated with developmental outcomes at 7 years of age in our cohort of term-born children with neonatal arterial ischemic stroke (AVCnn Study; NCT02511249).² Among the 73 children of the AVCnn cohort evaluated at 7 years of age, the full-scale Intelligence Quotient (IQ) was available for 70 children. Head circumference was measured as the largest occipitofrontal circumference with a nonstretchable tape measure. Full-scale IQ was evaluated using the Wechsler Intelligence Scale for Children—Fourth Edition, as described.² Statistical analyses were performed using GraphPad Prism version 9.1.

A strong positive correlation was observed between the head circumference and the full-scale IQ, with a Pearson correlation coefficient of 0.43 (95% confidence interval 0.21-0.60; $P < .001$) (Figure 1). These results are in line with those found by Leong et al¹ and confirm that head circumference is a pertinent biomarker of development in children with perinatal ischemic stroke.

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