

Letter regarding the article of Tauzin *et al.* ‘Increased systemic blood pressure and arterial stiffness in young adults born prematurely’

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Dear Editor,

We have read with great interest the commendable article by Tauzin *et al.*, who have demonstrated that young adults who have been born with a low weight owing to prematurity at birth show an increase in their systemic blood pressure and arterial stiffness. The authors have suggested that this condition might predispose to future cardiovascular adverse events in adulthood.¹

As pioneer in this field, our research group had already demonstrated a similar alteration in a group of young adults who have been born extremely preterm. In this study group, both systolic blood pressure and arterial stiffness measured by means of a previously validated method (flow-mediated dilation) appear to be increased in comparison with healthy controls born at term.^{2,3}

Furthermore, in our sample size the underlying alteration responsible for these findings are the high levels of asymmetric dimethylarginine, an endogenous strong inhibitor of nitric oxide synthesis. The renal excretion of asymmetric dimethylarginine appears to be inversely related with intrauterine growth restriction – expressed as birth weight – as well.^{2,4}

By a practical point of view, these findings suggest to cardiologists to consider prematurity at birth and/or low birth weight as a novel risk factor, being in these subjects present an early circulatory dysfunction potentially responsible for the future development of coronary artery disease and stroke.

References

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