



B-type natriuretic peptide may have a role in the management of patent ductus arteriosus

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To the editor:

Management of patent ductus arteriosus (PDA) remains a challenge for neonatologists in the care of preterm infants. Considering previous findings suggesting that the use of cyclooxygenase inhibitors does not improve long-term prognosis¹⁻⁴⁾ and may cause serious side effects in extremely preterm infants, minimizing their use should be attempted, irrespective of various treatment guidelines recommending prophylactic or symptomatic use.

In recent decades, studies have examined diagnostic methods for PDA and evaluated hemodynamic changes by measuring cardiac biomarkers including B-type natriuretic peptide (BNP) in the neonatal intensive care unit.⁵⁻⁷⁾ According to a recent meta-analysis, the measurement of BNP has diagnostic value for hemodynamic changes in premature infants with PDA.⁸⁾

Jeong et al.⁹⁾ investigated the usefulness of BNP as a guide for additional ibuprofen dosing in the treatment of PDA in very preterm infants. Additional doses of ibuprofen after the initial dose were withheld if the level of BNP was <600 pg/mL and if the clinical symptoms of PDA improved. The authors avoided unnecessary dosing of ibuprofen without increasing adverse outcomes and showed that the early ductal closure rate on echocardiography was higher in the incomplete dosing group than in the complete dosing group. This report has great significance as it is the first to describe BNP measurement as a guide for individualized treatment of PDA in preterm infants. However, this study did not suggest the absolute level of BNP required to ensure closure of PDA. If data are available or the authors can respond to this issue, they should provide the information for use by other researchers.

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Conflicts of interest

No potential conflict of interest relevant to this article was reported.

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