

## The Role of N-Terminal Pro-Brain Natriuretic Peptide Levels to Predict Clinically Significant Ductus Arteriosus in Preterm Infants

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**Aim:** This prospective study aimed to investigate the diagnostic utility of N-terminal pro-brain natriuretic peptide (NT-proBNP) measurements to predict clinically significant patent ductus arteriosus (PDA).

**Methods:** In this study, 26 preterm infants (mean gestation  $31.2 \pm 2.5$  week) were evaluated. Infants were categorized into three groups: without PDA, small PDA ( $<1.5$ mm) and significant PDA ( $\geq 1.5$  mm). Plasma NT-proBNP levels were measured on the first, third and seventh days of the patients. Echocardiography was performed on the same periods of time, blinded to NT-proBNP concentration.

**Results:** As the distribution of 26 patients, 8 of the patients had small PDA (30,8%), 9 of the patients had significant PDA (34,6%) and other 9 of the patients did not have PDA (34,6%). As the PDA diameters increase, a significant raise in levels of NT-proBNP ( $p=0.001$ ) was observed (fig 1). This effect was particularly demonstrated in the significant PDA group ( $p=0.001$ ). There were no significant differences according to the echocardiographic parameters among the groups.

**Conclusion:** The NT-proBNP levels rise with increasing diameter of the PDA and due to NT-proBNP levels being high especially in hemodynamically significant PDA group suggests that NT-proBNP levels might be used in differentiation of significant PDAs.

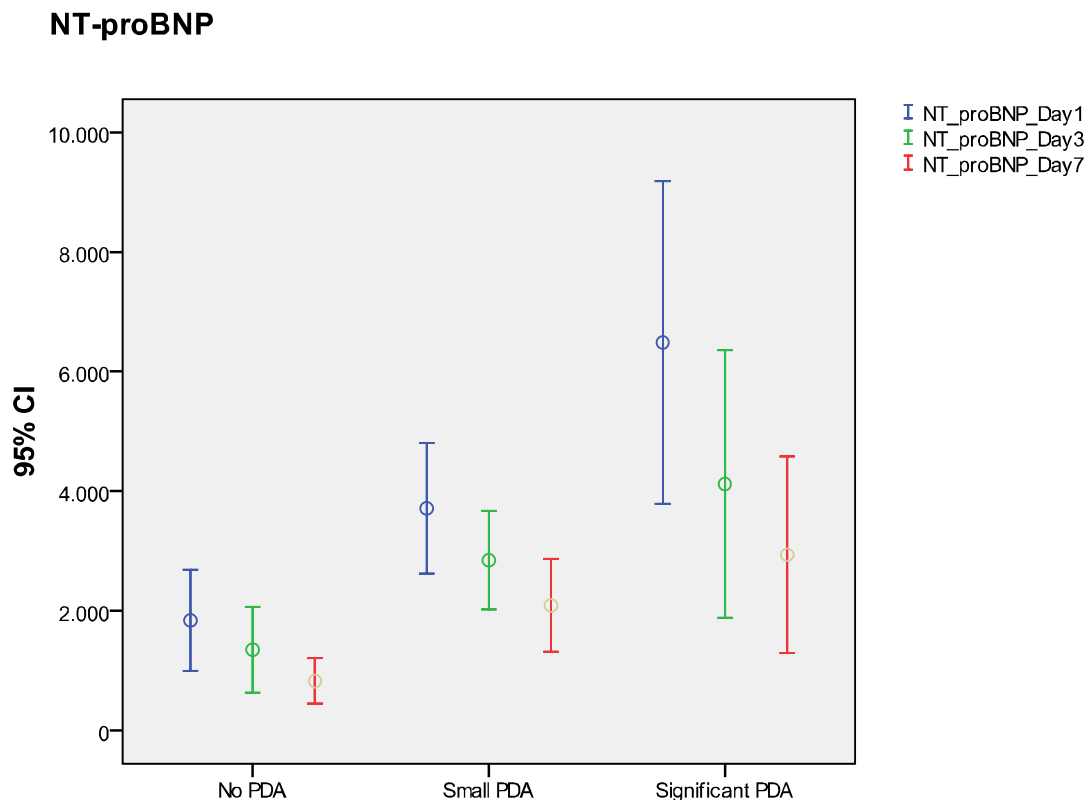


Figure 1. NT-proBNP levels of the patients according to the patent ductus arteriosus.