The use of B-type natriuretic peptide in paediatric patients: a review of literature.


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OBJECTIVE: Plasma levels of brain natriuretic peptide (BNP) and its inactive fragment N-terminal pro-BNP are recognized as reliable markers of ventricular dysfunction in adults. We aimed to verify BNP applications in children.

METHODS: A review of the literature on this subject was carried out.

RESULTS: When dealing with paediatric patients, age and sex-related normal values must be considered. Higher BNP plasma levels are reported in children with chronic heart failure; they are related with the type of dysfunction and with prognosis. Moreover, increased BNP levels have been reported in asymptomatic children and adolescents pretreated with anthracyclines, who are at risk for ventricular dysfunction.

CONCLUSION: BNP and pro-BNP also seem to be effective markers of ventricular dysfunction in paediatric patients. Clinical use may be extended not only for the characterization of heart dysfunction, but also for monitoring asymptomatic patients at specific risk. To this purpose, wider application in clinical trials appears warranted.

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