

عنوان مقاله:

Evaluation of Brain Natriuretic Peptide, Tumor Necrosis Factor and Interleukin-6 Plasma Levels in Infants and Children with Congenital Heart Disease

محل انتشار:

مجله بین المللی کودکان, دوره 6, شماره 8 (سال: 1397)

تعداد صفحات اصل مقاله: 7

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خلاصه مقاله:

Background Congenital heart disease (CHD) is the most common cause of major congenital birth defect. The aim of this study was to investigate the association of CHD with serum levels of Tumor necrosis factor- α (TNF α), Interleukin 6 (IL-6), and B-type Natriuretic Peptide (BNP) in infant and children. Materials and Methods The present study was conducted in Heshmat heart hospital and 17 Shahrivar hospital Rasht city, Iran. In 50 children, 25 with CHD and 25 age and sex-matched healthy children (were selected from companions or patients without heart disease), 3 ml vein blood samples of right hand were taken by a trained nurse and samples were sent to a private laboratory. After separation, the plasma placed at temperature of -20 °c. ELISA kits used for measuring BNP and eBioscience Bender MedSystems GmbH kit for measuring IL-6 and TNF- α . The results were entered into SPSS software (version 20.0). Results Serum levels of TNF- α and IL-6 and BNP in the healthy and patient groups were evaluated and by comparing results of the two groups there was no significant difference in serum levels of TNF- α and IL-6, but the serum levels of BNP has significant difference between two groups (80.7 ± 52.5 pg/ml vs. 455.4 ± 550.4 pg/ml, $P=0.003$). There was no significant relationship between BNP changes with changes in serum TNF- α , IL-6 levels. Conclusion Our study provided conclusive evidence BNP level is elevated in children with CHD; and significant relationship was observed between incidents of CHD respect to changes in serum BNP level.

کلمات کلیدی:

BNP, Children, congenital heart disease, Interleukin 6, TNF- α

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