

عنوان مقاله:

Prognostic Value of Soluble ST2 (sST2) Serum Levels in Infants and Children with Heart Failure Complicating Congenital Heart Disease

محل انتشار:

مجله بین المللی کودکان, دوره 7, شماره 5 (سال: 1398)

تعداد صفحات اصل مقاله: 10

نویسندگان:

Moustafa Abdel Raheem - MD in Pediatrics, Assistant Professor of Pediatrics, Department of Pediatrics, Faculty of Medicine, Minia University, Minia City, Egypt

Wael F Sedik - MD in Biochemistry, Lecturer in Biochemistry, Department of Biochemistry, Faculty of Medicine, Minia University, Minia City, Egypt

خلاصه مقاله:

Background Heart failure (HF) in infants and children with congenital heart disease (CHD) is a crucial complication with different outcomes. Many biomarkers are used as prognostic indicators. Soluble ST2 (sST2) is one of these markers studied in adults with HF. We aimed to study the prognostic value of sST2 in CHD children with HF. Materials and Methods In current case-control study, thirty-six CHD infants and children with HF (20 males and 16 females) with mean age of 20.3 ± 11.2 months were included in this study. Another 20 (12 males and 8 females) healthy children with mean age of 20.9 ± 9.1 months served as controls. Clinical evaluation, echocardiography and sST2 levels assessment were done for all subjects. Results Our results showed that sST levels were significantly higher in diseased group than controls (30.85 ± 2.48 ng/ml vs. 22.12 ± 1.50 ng/ml, respectively), and we recorded higher levels in more severely diseased children, according to Ross clinical classification and in those with poor prognosis than those with good prognosis. ROC curve for sST2 levels in diseased group showed that at cutoff point of more than 29.8 ng/ml, sensitivity of sST2 to predict poor prognosis of HF children was 95% with a specificity of 88%. Area under the curve (AUC) was 0.94. We found significant negative correlations between sST2 levels, and left ventricular ejection fraction (LVEF), and fractional shortening (LVFS), and significant positive correlations with heart rate (HR) respiratory rate (RR), cardio-thorathic (CT) ratio, left ventricular end diastolic, and systolic dimensions (LVEDd and LVESd). Conclusion Increased sST2 levels in infants with CHD complicated with HF can be used as a good predictive indicator to unfavorable outcome in those patients.

کلمات کلیدی:

Children, Congenital Heart, heart failure, Soluble ST2

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/892112>



