

عنوان مقاله:

Myocardial Dysfunction Caused by Perinatal Asphyxia in Full-term Infants

محل انتشار:

مجله بین المللی کودکان, دوره 12, شماره 0 (سال: 1403)

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خلاصه مقاله:

Background: Perinatal asphyxia may cause multiple organ dysfunctions, including myocardial dysfunction. This study aimed to evaluate the prevalence and features of myocardial dysfunction in perinatal asphyxia. **Methods:** This study was carried out on 31 neonates (≥ 37 weeks) with perinatal asphyxia who were admitted to the Neonatal Intensive Care Unit (NICU). The neonates underwent Electrocardiography (ECG) and Echocardiography (ECHO) in the first 72 hours of birth. Moreover, in the first 24 hours of birth, 1 cc of blood was taken from the patients for cardiac troponin I (cTnI) and creatine kinase-myocardial band (CK-MB) testing. Following that, venous blood gas was recorded one hour later. **Results:** The mean 1- and 5-min Apgar scores were 4 ± 1.76 and 6.8 ± 1.6 , respectively. The mean value of serum cTnI was 4 ± 1.76 , and mean level of CK-MB was obtained at 136.51 ± 258.51 . ECGs were of grade 1. Mitral valve E-wave/Early diastolic ($\Delta 1\%$), followed by Tricuspid Regurgitation Vena Contracta (48.4%) was found to be the commonest ECHO abnormality, and Mitral annular plane systolic excursion (96.8%) was the most normal ECHO parameter. Infants with ECG grade 1 changes had a lower 5-min Apgar score ($P=0.014$), and higher serum cTnI level ($P=0.002$). ECG changes were not significantly correlated with the mean of Apgar at 1 min, umbilical vein PH, and CK-MB. **Conclusion:** ECG and ECHO changes, serum troponin I level, and 5-min Apgar score were found to be the predictors for myocardial dysfunction caused by asphyxia in newborn infants

کلمات کلیدی:

Myocardial changes, Birth Asphyxia, echocardiography, Electrocardiography, neonate

