JCK Poster

JCK Poster 3 (III-JCKP3)

Fetal and Neonatal Cardiology/Others

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1:00 PM - 2:00 PM

[III-JCKP3-05]The study on diagnostic value of 4D echocardiogrphy in prenatal diagnosis of congenital heart diseases

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Objective: The aim of this study was to find the diagnostic value of spatiotemporal image correlation (STIC) technology in prenatal diagnosis of congenital heart diseases (CHDs).**Methods:** The study was a prospective and blind study. STIC images of pregnancies met the inclusion criteria were acquired during the examination of extend cardiac echography examination (ECEE) and offline analyzed by other specialists that blind to the characteristics of pregnancies and the results of ECEE. Multi-planer rendering mode (MPR) was used for STIC diagnosis during offline analysis. All cases were followed up. The sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) were analyzed for fetal echocardiography and STIC technology.**Results:** The proportion of termination of pregnancy (TOP) was 32.0% (54/169) in all cases and 56.8% (54/95) in the cases of CHDs. The diagnostic sensitivity and specificity of two-dimensional fetal echocardiography for prenatal diagnosis of CHDs were 100% (42/42) and 95.9% (71/74) respectively, the PPV was 93.3% (42/45) and the NPV was 100% (71/71). The sensitivity and specificity of STIC technology in prenatal diagnosis of CHDs were 92.6% (88/95) and 97.3% (72/74) respectively, the PPV was 97.8% (88/90) and the NPV was 91.1% (72/79). The area under receiver operating characteristic (ROC) curve were 0.98 and 0.95 respectively. **Conclusion:** STIC technology had a high sensitivity and specificity in prenatal diagnosis of CHDs according to the present study.