

JCK Poster

JCK Poster 3 (III-JCKP3)

Fetal and Neonatal Cardiology/Others

Chair: Han Zhang (Department of Cardiology, Shanghai Children's Hospital, Shanghai, China)

Sun. Jul 9, 2017 1:00 PM - 2:00 PM Poster Presentation Area (Exhibition and Event Hall)

1:00 PM - 2:00 PM

[III-JCKP3-06] Evaluation of Referral Indications for Fetal

Echocardiography, Prenatal Diagnosis, and Outcomes

○Lee Voon Chu¹, Wai Lin Ang², Ching Kit Chen² (1. Yong Loo Lin School of Medicine, National University of Singapore, Singapore, 2. Cardiology Service, Department of Paediatric Subspecialties, KK Women's and Children's Hospital, Singapore)

Objective This study evaluates referral indications for fetal echocardiography (FE) in a tertiary centre in Singapore, analyses which were significantly associated with detection of congenital heart disease (CHD), and generates trends between referral indications, diagnoses and fetal outcomes.

Method This was a retrospective, single-centre study reviewing medical records of 181 women over a 2-year period from July 2014 to June 2016.

Results The mean gestational age at first FE was 23±4 weeks. 156 out of 181 fetuses were diagnosed with CHD. The most common referral indications were abnormal cardiac ultrasound (104, 93% confirmed CHD) - most commonly ventricular septal defect (44, 28%), pulmonary stenosis (21, 13%) and Fallot's tetralogy (16, 10%), abnormal cardiac rhythms (63% confirmed CHD) and intracardiac echogenic foci (71% confirmed CHD). 32 (18%) pregnancies were terminated, with the most common diagnoses being atrioventricular septal defect (10, 31%), double outlet right ventricle (4, 12.5%) and Fallot's tetralogy (4, 12.5%). Out of 129 delivered fetuses, 112 were followed up and 87 (78%) had concordant prenatal and postnatal diagnoses. 23 (26%) had cyanotic CHD. 30 underwent surgery (21 corrective, 9 palliative) after which 22 (73%) survived. Of 104 fetuses referred for abnormal cardiac views, 33 (32%) died. 96 (86%) out of all fetuses followed-up survived.

Conclusion Abnormal cardiac views on second-trimester ultrasound were significantly associated with postnatal diagnosis of CHD and mortality. Early detection via FE and subsequent intervention improves survival.