Pregnancy Assessment and Counselling Service for Woman with Congenital Heart Disease in Queen Mary Hospital

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Introduction
Nowadays, around 0.8% babies are born with a cardiac abnormality. Due to advancement of medical and surgical technologies, approximately 85% of congenital heart disease babies can survive to adulthood. In particular for those women with congenital heart disease (CHD), they may go to have children. However, their cardiac condition may increase their risk during pregnancy and adverse event may occur if they were not properly assessed and managed during pregnancy.

Objectives
The aims of the Pregnancy Assessment and Counselling service are:
1. To educate and ensure CHD pregnant woman understands their present cardiac conditions and possible risks during gestation period.
2. To provide a comprehensive cardiac pregnancy care plan for conjoint management with obstetricians & obstetrics anesthetists.

Methodology
The provision of pregnancy assessment and counselling in clinical area is performed by a team of Paediatric and Adult congenital heart cardiologists. Most of the CHD pregnant women are referred from HA hospital, private sectors or specialty clinics. Once the referral letter was received, she will be admitted to ACHD unit and various clinical and non-invasive cardiac assessments will be subsequently arranged, including ECG, Echocardiogram and 24hour Holter monitoring assessment. After the assessment, they would be stratified into various modified WHO risk class and Cardiac Pregnancy Care Plan was made to specify the potential risk and respective care during pregnancy and peri-partum period. Further discussion and planning with
obstetrician for high risk pregnancy woman will be arranged accordingly.

Result
The service started from July 2016 under Adult Congenital Heart Disease Program in QMH. Until Mid of February, 2017, 26 pregnancy women aged 27 to 41 were recruited in this assessment. Twenty women were considered as class I to II under modified WHO Risk Class score. Two women were classified as risk class III and 4 were IV. Among these 25 pregnancy women, 5 women achieved full-term delivery and 2 women had pre-term delivery (34 weeks of gestation at delivery). One woman had silent miscarriage at 13 weeks of gestation. The remaining 18 pregnancy women, at 14 - 38 weeks of gestation respectively, were under close surveillance management by Obstetrician and Cardiologist. All pregnancy women were planned to receive appropriate observation and management during delivery process. In Class IV high-risk group pregnancy woman, 2 women were admitted in QMH and 1 was admitted in private Hospital for Labor. All women were used LSCS method for baby delivery. During labor stage in QMH, the standby of special equipment such as cardiopulmonary system, reserve intensive care unit and cardiologists on-site was well prepared for emergency situation. Eventually, 2 high risk pregnancy women with CHD had a safe delivery process without complications. There was no fetal or maternal mortality event found from those women. Regarding to post-partum follow-up, 3 women had echocardiogram and showed no deterioration of cardiac function.