

CONGENITAL HEART DISEASE IN A CHINESE HOSPITAL: PRE- AND POSTNATAL DETECTION, INCIDENCE, CLINICAL CHARACTERISTICS AND OUTCOMES

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Background: The pre- and postnatal detection rate, incidence, clinical characteristics and outcomes of congenital heart disease (CHD) have been studied in developed countries for many years, but rarely have large-scale studies been reported in Chinese populations. The aim of the present study was to investigate pre- and postnatal detection rate, incidence, clinical characteristics and outcomes of CHD in a Chinese hospital, reveal the status in order to improve the future screening and treatment of CHD.

Methods: Fetuses without risk factors for CHD were screened using basic cardiac ultrasound examination (BCUE), fetuses with suspected cardiac malformation revealed by BCUE and fetuses with risk factors were screened using extended cardiac ultrasound examination (ECUE). Outcomes recorded from fetal, neonatal and post-mortem records over four years (2006-2009) included: therapeutic termination of pregnancy (TOP), spontaneous abortions or stillbirths, deaths at birth or in the neonatal period (before 28 days of age), and rate of birth and clinical characteristics of newborns.

Results: A total of 34,071 fetuses were screened for CHD during a period of 4 years, which 173 fetuses were screened for CHD using BCUE and 376 fetuses were screened using ECUE. The incidence of live newborns with CHD was 0.80% (271/34071).

Conclusions: The prevalence of CHD was quite common in this Chinese hospital. Detailed profiles of CHD suggest that, while training programs in obstetric screening at this hospital were beneficial, prenatal intervention, treatment and care of fetal CHD were inefficient and should be strengthened.