Detection Rate of Congenital Heart Diseases after Introduction of the Structural Fetal Ultrasound Screening Examination in The Netherlands

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Aim
To see how the detection rate of congenital heart diseases (CHD) has changed since the introduction of the structural ultrasound examination in 2007 in The Netherlands.

Methods
We used a fetal cardiac and the postnatal cardiac database (2004-2010) of our tertiary hospital (UMCU). The patients were divided into two groups;
1: fetal cardiac abnormality and termination of pregnancy (TOP), intrauterine, neonatal death or intervention <31days. 2: idem but >31 days and <1 year.

Exclusion: PDA, living outside the region, major extracardiac malformations, lethal chromosomal abnormalities

Results
446 CHD-patients, 160 known prenatally. Detection rate ('04-'10) from 14% to 53%. Most often detected Ebstein anomaly and aortico RV-tunnel

Least often detected was ASD. Detection rate group 1 rose from 17.6% (2004) to 53% (2010). Detection rate 2nd group rose from 5.8% in 2004 to 34.8% in 2010. The detection rate in the province was measured and shows improvement in most areas.

Conclusion
- After introduction of the structural fetal ultrasound→detection rate for CHD increased through the year
- Some CHD’s are often found/ have a high detection rate due to the seldom of the CHD
- An improvement has to be made in finding the complex CHD’s
- Detection rate of the simple TGA is to low compared to international standards
- The goal of prenatal screening is to detect all low complex, high complex CHDs and lethal CHDs