

Complex Cardiac Prenatal Diagnosis: Continuing or Termination of Pregnancy? A Retrospective Analysis.

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Objective:

To investigate the complexity of congenital cardiac and extracardiac malformations in foetuses, in whom continuation or termination of pregnancy were considered.

Methods:

During a five year period (2004-2008) 209 foetuses were diagnosed before the 24th week of gestation having a congenital heart disease (CHD). All parents were counselled twice in a standardized manner by a perinatologist and a foetal cardiologist. The severity level of cardiac and extracardiac malformations were retrospectively categorized using a complexity classification (table 1A/B) by one paediatric cardiologist who was blinded to whether a termination of pregnancy was carried out or not.

Table 1 A/B

Level	Cardiac Malformation
<i>I</i>	No complex CHD, cure possible
<i>II</i>	Complex CHD, cure possible
<i>III</i>	Very complex CHD, only palliation
<i>IV</i>	No therapy feasible

Level	Extracardiac Anomaly
<i>A</i>	None
<i>B</i>	Mild
<i>C</i>	Complex
<i>D</i>	Lethal

Results:

In 109 (52%) of the 209 foetuses parents opted for termination of pregnancy, at a mean of 21.6 weeks of gestation. Of the 109 terminated pregnancies 101 foetuses (93%) had a cardiac level III/IV and/or an extracardiac level C/D malformation. In other words a level III/IV CHD was present in 49 % and a level C/D extracardiac malformation in 59 % of the foetuses. 87% of the terminations of foetuses with a CHD level I was associated with a level C/D extracardiac anomaly.

Of the 101 continuing pregnancies 42 foetuses (42%) had a cardiac level III/IV and/or an extracardiac level C/D malformation. In other words 20 % had a cardiac level III/IV CHD and 27% an extracardiac level C/D malformation. The complexity level of the CHD or extracardiac malformation was significant higher within the termination group (Fisher's exact test $P=0.0001$).

Conclusion:

This is the first report about termination of pregnancy taking into account the severity levels of the foetal congenital heart disease and associated extracardiac malformations. The severity levels of the cardiac and/or extracardiac malformation are significantly higher in the termination group. After thorough counselling it is rare for parents to decide on termination of pregnancy in the absence of severe cardiac and/or extracardiac malformations.