

## MP2-22

### Fetal Tachyarrhythmia – transplacental treatment and longterm outcome in 153 subjects

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**Introduction.** Fetal tachycardia carries a risk for morbidity and mortality and there is no consensus concerning medical treatment. The objective of the study was to evaluate the experience of fetal tachycardia in Stockholm and Gothenburg.

**Methods.** A retrospective, descriptive study including all consecutive pregnancies that presented with fetal tachycardia between January 1990 and December 2012 were conducted.

**Results.** A total of 153 pregnancies were identified, 98 had atrioventricular re-entry tachycardia (AVRT), 42 had atrial flutter (AF), 6 had permanent junctional reciprocating tachycardia (PJRT), one had atrial ectopic tachycardia (AET), three had atrial chaotic tachycardia (ACT), two had junctional ectopic tachycardia (JET) and one had ventricular tachycardia (VT). Ninety-seven fetuses received transplacental treatment; in foetuses without hydrops, when digoxin was used as first line treatment; 15 of 30 (50%) cardioverted, with sotalol as first line treatment 13 of 19 (68%) cardioverted, the combination of digoxin and sotalol led to cardioversion in 3 of 5 (60%) fetuses. In 46 of 153 (30%) cases hydrops was present, and with digoxin as first line treatment 5 of 19 (26%) cardioverted, with sotalol as first line treatment 6 of 14 (43%) cardioverted and the combination of digoxin and sotalol led to cardioversion 2 of 7 (28%) fetuses. Eight hydropic fetuses died 2-35 days (median 4) after diagnosis. Two children developed severe neurological symptoms (cerebral infarction) related to the tachycardia during the first week of life. At follow up median 8 years (0.5-22) 11 still have problems with arrhythmia, AVRT in nine and PJRT in two. One has undergone heart transplantation.

**Conclusions.** In the group of hydrops and AVRT 8 of 36 (22%) fetuses died. First-line treatment with digoxin and/or sotalol led to cardioversion in 26 – 43 %. Death occurred at a median time of 4 days after diagnosis. At follow up 11 of 139 (8%) still have problems with arrhythmia.