EP07.22 – Ultrasound evaluation of the ventricular system in the late first trimester: a feasibility study.
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Objectives
to investigate if the assessment of the fetal ventricular system is feasible at 11-13 weeks.

Methods
the fetal ventricular system has been prospectively evaluated in a non consecutive series of normal fetuses during the 11-13 weeks ultrasound screening evaluation by three operators. A transabdominal systematic multiplanar evaluation was performed in all cases, aiming at the assessment of the fourth ventricle on the midsagittal plane, and of the lateral ventricles, third ventricle and Sylvian aqueduct on axial planes. The stored videoclips and images were revised offline by two different operators in order to define if an adequate evaluation of these structures was feasible. Cases with structural fetal anomalies have been excluded.

Results
Overall, 86 fetuses were included in the study. In this group, lateral ventricles, Sylvian aqueduct and fourth ventricle were considered to be adequately visible in almost all cases (84 or 98%, 76 or 88% and 84 or 98% cases respectively) whereas the third ventricle appeared adequately visible in a slightly smaller but still high proportion of cases (70 or 81%, p<0.05).

Conclusions
At 11-13 weeks, a transabdominal ultrasound assessment of the fetal ventricular system by a systematic multiplanar approach seems to be feasible.