**Objectives**
The hippocampus undergoes its major morphological development between 18-24 weeks of gestation by rotating and folding in the temporal lobe. The aim of this study was to describe this process by transabdominal ultrasound.

**Methods**
11 women with an uncomplicated singleton pregnancy underwent a weekly transabdominal ultrasound evaluation of the temporal lobe. The angle [Fig.1.*] between two reference lines, one orthogonal to the midline [Fig.1.a] and one passing through the most lateral point of the hippocampus [Fig1.b], was measured. The change of the angle was used to describe the rotational process.

**Results**
During fetal development in week 18-24, the hippocampus underwent a mean rotational movement from 97.53° to 169.40° with a mean increase of 40.55° between week 18-21 and 31.32° between week 21-24. The angle on the right side tended to be bigger than on the left side. In week 20 the side difference was statistically significant (p=0.039).

**Conclusion**
The main hippocampal rotation occurs from week 18 to week 21, and it continues until week 24. The right hippocampus folds earlier than the left one. The data can be used to define landmarks for assessing normal gyration.