Objective
The aim of our study was to investigate normal reference ranges for the depth and height of the Sylvian fossa (SF) at midtrimester anomaly scan using bidimensional transabdominal ultrasound and to assess the interobserver reproducibility of these measurements.

Methods
This was a prospective study of a nonconsecutive series of women with singleton pregnancies referred to our outpatient clinic from November 2018 to February 2019 for the routine second trimester anomaly scan between 19 and 22 weeks. Only cases with normal ultrasound results were included. For each patient, a coronal view of the fetal brain was imaged by an expert sonographer, either with transabdominal or transvaginal scan. The height and the depth of the SF were measured using stored images by the expert operator and a trainee sonographer and reproducibility was assessed.

Results
Mean (SD) height of the SF was 10.4 ± 1.5 mm and its mean depth was 4.4 ± 1.2 mm. Inter-observer reproducibility analysis demonstrated optimal results both for height (ICC 0.899; 95% CI 0.851-0.932) and depth (ICC 0.873; 95% CI 0.811-0.914), without significant differences between the two operators (p 0.916 e 0.160, respectively).

Conclusion
Ultrasound measure of the SF during routine second trimester anomaly scan has an excellent inter-operator reproducibility among fetuses with normal ultrasound results. Further studies are needed to evaluate the usefulness of this measure in fetuses with central nervous system anomalies and in early detection of abnormal cortical sulcation.