

The ratio between corpus callosum length and occipito-frontal diameter in the Romanian population

Liana Ples^{1,2}, Mihai-George Loghin¹, Mihaela Amza¹, Didel-Ionut Valcea², Romina-Marina Sima^{1,2}, Mircea-Octavian Poenaru^{1,2}

1. Department of Obstetrics and Gynecology, "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania; 2. "Bucur" Maternity, Saint John Hospital Bucharest, Romania;

Objectives

The aim of our study was to evaluate the ratio between corpus callosum length (CC) and occipito-frontal diameter (OFD) in the Romanian population.

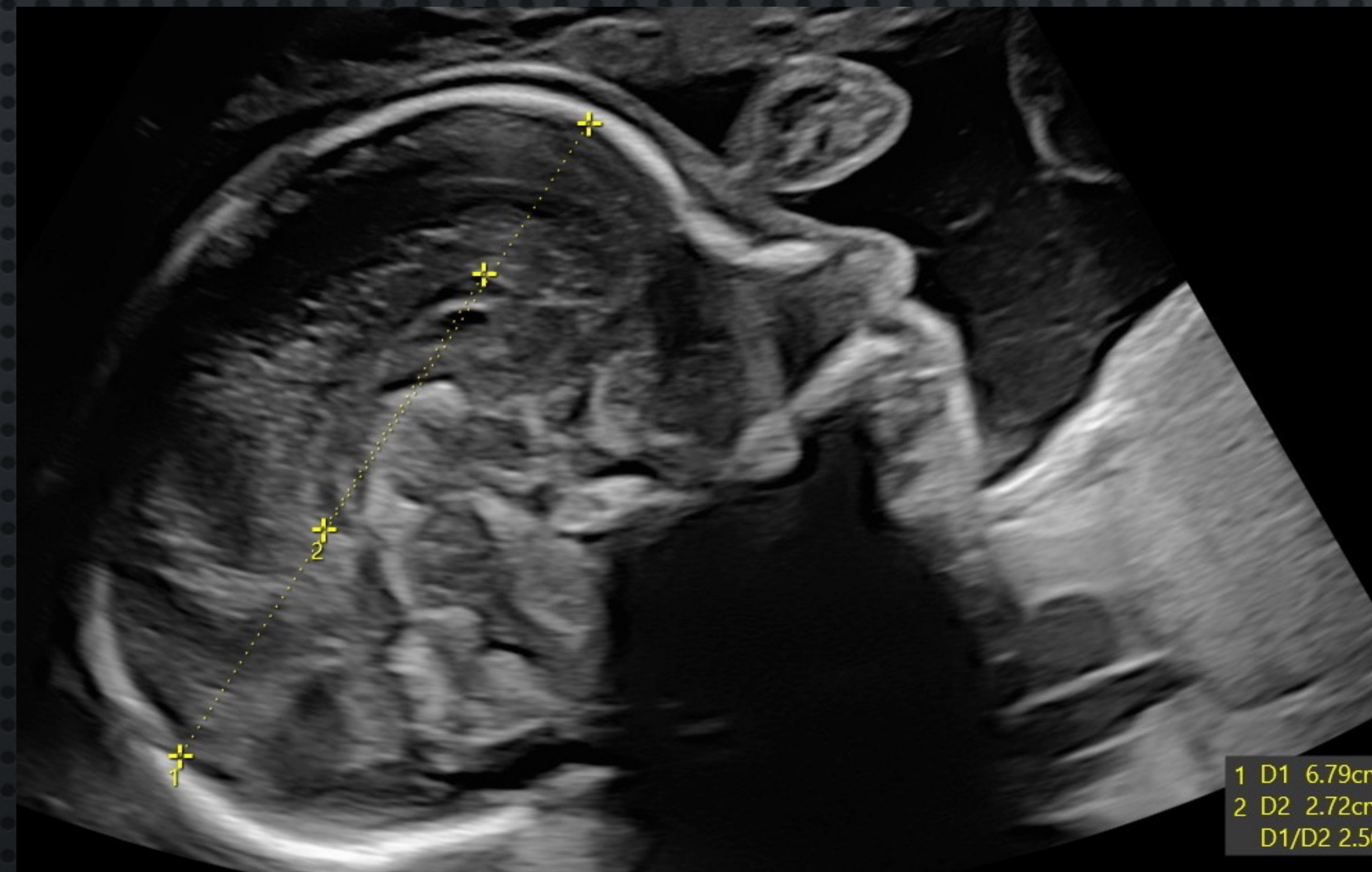


Figure 1. Midsagittal plane

Methods

We used the **midsagittal plane** to measure OFD and CC (Figure 1).

We applied:

- the **"in-in"** technique for **OFD**
- the **"out-out"** technique for **CC**.

The OFD/CC ratio was associated with gestational age.

Results

Our study included 150 pregnant women with gestational ages between 17 and 37 weeks. The patients' age ranged from 18 to 45 years. The OFD/CC ratio was calculated for each trimester and the mean value was **2.5 ± 0.56 in the second trimester** and **2.52 ± 0.21 in the third trimester**. The mean value of all records was **2.62 ± 0.55** (95% CI: 2.57 - 2.71). We identified a total of 5 complete and 7 partial agenesis of the corpus callosum.

Conclusions

- ✓ The OFD/CC ratio value in the Romanian population varied between **2.57** and **2.71**.
- ✓ This range remained **stable** throughout **pregnancy** in the second and third trimesters.
- ✓ Partial or total agenesis of the corpus callosum was associated with OFD/CC **ratio values above 3**.
- ✓ OFD/CC ratio values **below this range** were not associated with unfavorable outcome.