19th World Congress in Fetal Medicine

The ultrasonographic mesurement of the uterine cervix at the first trimester of the pregnancy for the prediction of prematurity

DOURADO, ALM; REZENDE, KBC; LAPOENTE, JMF; COSTA Jr, IB; RAMOS, PSPBC; REZENDE, LC; AMIM Jr, JA; BORNIA, RG
Maternidade Escola da Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil

Objective

(1)To determine the prevalence of the short uterine cervix (<25 mm) in nuchal scan and (2)to evaluate the uterine cervix measurement performance for the prevention of subsequent gestational losses and spontaneous prematurity birth.

Methods

A transversal and observational study. Patients who went through a uterine cervix ultrasound measurement nuchal sacan usually caried out from11weeks to13 weeks + 6 days of the gestational period from January/2013 to December/2017. The prevalence of spontaneous premature birth (PEP) and short cervix were calculated, the operator Receiver Characteristic (ROC) curve was made and area under ROC curve was determined. A flowchart, histograms and Box plot charts of the uterine cervix measurements of all cases were also carried out.

Results

A total of 1894 cervix were measured. Among them, 304 (16%) were. We excluded 22 (1.1%) cases because of miscarriage, termination, or fetal death before 24 week's gestation and 61 (3.2%) due to iatrogenic preterm birth. The final sampling grouped 1,505 cases. The short cervix were counted in 12 cases with a prevalence of 0.63%. 2 patients were counted as lost-to follow-up and 10 patients had an acknowledged outcome: 1 PEP and 9 full term deliveries. PEP was observed at 55 (3.64%). In relation to the uterine cervix measurements we observed that among the 1,505 cases, the mean in mm was of 35.57 (IC95%: 35.89) for the group with gestational age(GA) of delivery ≥ 37 weeks and 34.77 (IC95%: 33,33 – 36,20) for cases with combined outcome (PEP and gestational loss)and for 35.08 (IC95% - 33.45 - 36.70) for the group with GA at delivery less than 37 weeks. The ROC curve for the occurrence of PEP was 0,45 (95% CI: 0,37 – 0,53) and for combined outcomes was 0,46(95%CI: 0,38 –0,54).

Conclusion

The prevalence of the short cervix was of 0,63%. There was no significant difference between short cervix and the studied outcomes: miscarriages and spontaneous premature birth. 0,54). Despite the low prevalence of short cervix diagnosed on 1st trimester, we recommend the inclusion and universalization of thismeasurement at the time of nuchal scan in the routine prenatal care of the ME-UFRJ clinical protocols.