

Prediction of cesarean section based on antropometric markers in first trimester of pregnancy in patients with metabolic syndrome (MS). ID- 2942

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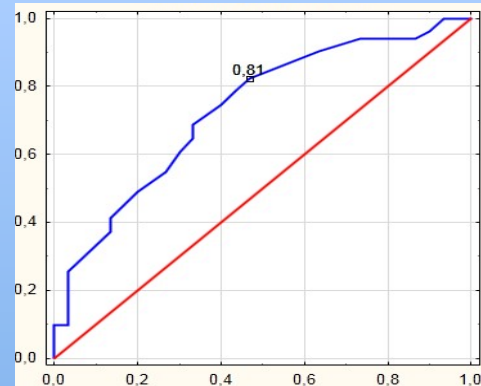
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Objective

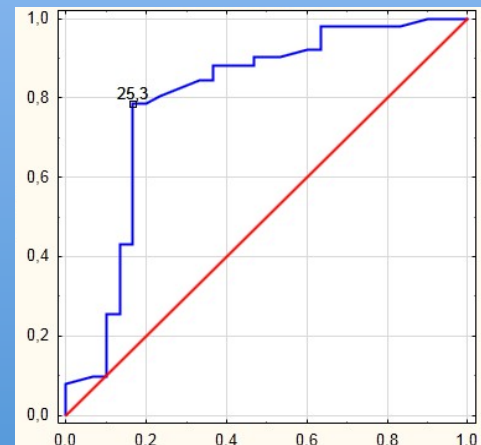
The objective was to find markers of cesarean section (CS) in patients presenting metabolic syndrome in early stage of pregnancy.

Material and Method

We conducted a prospective observational study for early prediction of pregnancy complications in women with signs of MS sending for their routine visit in pregnancy. At 11 to 13 weeks and 6 days of gestation we recorded maternal characteristics and medical history and performed combined screening for aneuploidies. Maternal serum biochemistry and maternal characteristics were measured at that time. In the study we enrolled 127 pregnant women with MS in the 11 to 13 weeks and 6 days of gestation, who fulfill entry criteria according to recent MS definition and 30 healthy subjects. In the final analysis we included 154 women. Studied population was Caucasian women in singleton pregnancies. Before enrolling patients sign informed consent.



Figr.1 ROC for CS and WHR



Figr.2 ROC for GDM and BMI

Results

The maternal characteristics and biochemical profile of women, who had cesarean section are as follows. In pregnancies with metabolic syndrome we had 34,7% of cesarean deliveries (34,7%). Statistical parameters AUC, sensitivity, specificity for cesarean delivery were as follows: weight in first trimester of pregnancy for cut-off 61,7kg 0,773, 0,941 0,6; weight before pregnancy for cut-off 63 kg 0,757, 0,902, 0,6; waist circumference > 74cm 0,706, 0,882, 0,467; BMI 25,3 kg/m² 0,797, 0,784, 0,833, waist-hip ratio >0,81 0,732, 0,824, 0,533.

Discussion

In conclusion, maternal serum metabolic syndrome markers, Adiponectin and E-selectin show no significance in improvement of detecting pregnancies at risk of cesarean section delivery. Antropometric parameters are useful like BMI > 25,3, waist circumference > 74 cm, weight in first trimester of pregnancy > 61,7kg and waist-hip ration > 0,81 should be considered as risk factors for cesarean section risk factors in patient with Metabolic Syndrome.