The Use of Thromboelastography in Evaluation of Coagulation in Females with Physiological or Pathological Pregnancy

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Abstract

Introduction: The target of this study was to compare thromboelastography coagulation parameters in the following three groups: a) healthy pregnant women, b) healthy non-pregnant women and c) pregnant women with pathological pregnancy and also to compare it to reference limits for the common population. If appropriate, we would propose recommendations for new reference ranges for pregnant women in their third trimester.

Materials and methods: Prospective observational study, comparing, by using thromboelastography, the blood samples of 60 healthy women in their third trimester of pregnancy (group GRAV) to the samples of the control group of 43 healthy non-pregnant fertile women (group NON-GRAV) and to the samples of 50 women with pathological pregnancy (preeclampsia, fetal death) in their third trimester (group PATOL). Selective percentiles were used to determine new reference limits.

Results and conclusions: We found statistically significant differences between groups GRAV and NON-GRAV. Therefore, we established, based on our results, new thromboelastography reference limits for pregnant women. Coagulation changes during pathological pregnancy are less predictable and can lead to hypercoagulation, but also to significantly hypocoagulation status.

Keywords: thromboelastography, pregnancy, coagulation, reference ranges, preeclampsia, fetal death