VARIABLE DECELERATIONS OF FETAL HEART RATE AND RELATIONSHIP WITH FSpO2 DURING LABOR

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Objective: To verify the fetal oxygen saturation (FSpO2), before, during and after episodes of fetal heart rate (FHR) variable decelerations during labor.

Material and Methods: Fifty-five pregnant women during labor were studied at University Hospital of Santa Maria. FSpO2 was measured by pulse oximetry method. Inclusion criteria were: singleton pregnancies at term, with vertex presentation. Criteria for exclusion were multiple gestations, gestational age <37 weeks, placenta previa, chorioamnionitis, vaginal bleeding of unknown origin, sexually transmitted diseases, and birth weight <2500gm. Only FHR decelerations at least 30sec. and 30bpm were considered for the study. A good signal quality of FSpO2 values during variables decelerations was obtained (at least 70% of deceleration time). FSpO2 was 1 minute rorded before deceleration, during fall and recovery of FHR, and 1 minute after recovery. An oxisensor FS-14B and a fetal monitor were used. Student t test was used for statiscal analysis and $p<0.05$ was considered as significant.

Results: Eight-five oxicardiotocographies were analyzed and 158 variable decelerations met criteria to be studied. Average of FSpO2 at 1 minute before deceleration was 52,6%±8,1% and during deceleration 48,1%±8,4%. At recovery of FHR, FSpO2 FSpO2 values were 46,9%±8,4 and 1 minute after recovery of FHR 49,5%±8,2%. Statiscal analysis shown significante differences between all FSpO2 values. There is a delay, more than 1 minute, for FSpO2 values return to basal levels, after deceleration finished.

Conclusion: During labor, fetal oxygen saturation decreases significantly during episodes of FHR variable decelerations and its values delayed more than 1 minute returning to basal levels, after variable deceleration finished