

Predictive value of the baseline T-QRS ratio of the fetal electrocardiogram in intrapartum fetal monitoring: a prospective cohort study.

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OBJECTIVE: To evaluate the added value of the baseline T/QRS ratio to other known risk factors in predicting adverse outcome and interventions for suspected fetal distress.

DESIGN: Prospective cohort study.

SETTING: Three academic and six non-academic teaching hospitals in the Netherlands.

POPULATION: Laboring women with a high-risk cephalic singleton pregnancy beyond 36 weeks of gestation.

METHODS: We obtained STAN(®) recordings (ST-analysis, Neoventa, Sweden) from two previous studies. Three patient groups were defined: cases with adverse outcome, cases with emergency delivery because of suspected fetal distress without adverse outcome, and a reference group of uncomplicated cases. Baseline T/QRS ratios among the adverse outcome and intervention for suspected fetal distress cases were compared to those of the uncomplicated cases. The ability of baseline T/QRS to predict adverse outcome and suspected fetal distress was determined using a multivariable logistic model.

MAIN OUTCOME MEASURES: The added value of the baseline T/QRS to other known risk factors in the prediction of adverse outcome and interventions for suspected fetal distress.

RESULTS: From 3462 recordings, 2459 were available for analysis. Median baseline T/QRS for uncomplicated cases, adverse outcome and interventions for suspected fetal distress were 0.12 (range 0.00-0.52), 0.12 (0.00-0.42) and 0.13 (0.00-0.39), respectively. There was no statistical difference between these groups. Multivariable analysis showed no added value of baseline T/QRS in the prediction of either adverse outcome or interventions for suspected fetal distress.

CONCLUSION: Baseline T/QRS has no added value in the prediction of adverse neonatal outcome or interventions for suspected fetal distress.