

What about ST waveform analysis signal quality in the second stage of labor? A case-control study

Berakdar I, Gaucherand p, Doret M.

Department of Obstetrics, Hospices Civils de Lyon, Hopital Femme-Mère-Enfant, Bron cedex F-6967759, France

AIM: This study aimed to investigate ST waveform analysis (STAN) signal quality during the second stage of labor by comparing signal quality in the first and second stages of labor.

METHODS: Fifty women who delivered vaginally were randomly selected in a large prospective database including all women with STAN monitoring during labor. Quality signal was analyzed during the second stage of labor (Period B) and during the same period of the first stage of labor (Period A), just preceding active pushing. STAN signal quality was evaluated using seven variables. Main outcome was the presence of at least one signal loss >4 min.

RESULTS: At least one signal loss >4 min was present for, respectively, 4% (95% confidence interval [CI] 0–9.43) of patients in Period A and 28% (95% CI 15.5–40.5) of patients in Period B ($P<0.05$). A significant difference was detected for all variables analyzed between the two periods ($P<0.05$).

CONCLUSION: STAN quality signal deteriorates in the second stage of labor compared to that in the first stage. As guidelines clearly indicate that signal quality influences the decision process, it should be carefully and systematically checked before including STAN analysis in the decision-making.