

ST analysis and prevention of hypoxia – the Turku experience

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The aim of intrapartum fetal monitoring is to prevent the occurrence of oxygen deficiency. ST analysis has emerged as an adjunct to CTG providing continuous information on fetal reactions to hypoxia. Indications for using ST analysis may vary, our approach has been to use it in connection with non-reassuring FHR patterns, bringing down the need for scalp-pH sampling.

Aim: As part of a prospective observational study, analyse the occurrence of metabolic acidosis in the Turku University Hospital cohort monitored with CTG+ST between 2001 and 2007.

Methodology: Of a total of 25638 deliveries, 4400 (17.2%) were monitored with CTG+ST. More than 98% of STAN recordings had cord acid base data available, $\text{pH} < 7.05$ and $\text{BDecf} > 12.0$ mmol/L was used to define metabolic acidosis.

Results: During the last three years and 2040 deliveries monitored with CTG + ST we had only one case! with metabolic acidosis (VE for CTG+ST changes. normal neonatal outcome). In the total population, the rate of acidosis (cord artery $\text{pH} < 7.05$) have shown a steady decline from 1.5% to 0.7% (OR 0.43, 95%CI 0.27-0.69).

FBS has become rarer and operative interventions has not increased.

Conclusions: ST analysis of the fetal ECG as an adjunct to CTG has over the last 3 years eradicated intrapartum hypoxia as defined by cord metabolic acidosis. In the total population the general acidosis rate has been reduced by more than 50%. These findings meets with our expectations.

