



World Conference on Agricultural and Earth Sciences

Hosted Online from Istanbul, Turkey

Date: 20th September, 2026

Website: <https://econferencia.com>

INTRAPARTUM CARDIOTOCOGRAPHY AND CLINICAL DECISION-MAKING: CTG FINDINGS IN CESAREAN DELIVERIES FOR NON-REASSURING FETAL STATUS

Turaeva S. N.

Nurova A. A.

Ilyasov A. B.

Background

Cardiotocography (CTG) is widely used for intrapartum fetal surveillance and plays an important role in decisions regarding the timing and mode of delivery. However, the relationship between formal CTG assessment and the clinical decision to perform emergency cesarean delivery is not always straightforward. In clinical practice, suspected fetal compromise is assessed in the context of the entire intrapartum course, including changes in fetal heart rate patterns over time, uterine activity, labor progression, and other obstetric factors. Consequently, a clinical diagnosis of non-reassuring fetal status may not always correspond to the severity suggested by a single CTG score.

Retrospective evaluation of cesarean deliveries performed for non-reassuring fetal status may therefore provide useful information on the relationship between documented CTG findings, clinical decision-making, and early neonatal condition.

Keywords: Cardiotocography, intrapartum fetal monitoring, non-reassuring fetal status, cesarean section, Fisher score, NICE classification, Apgar score.



World Conference on Agricultural and Earth Sciences

Hosted Online from Istanbul, Turkey

Date: 20th September, 2026

Website: <https://econferencia.com>

Objective

To characterize cardiotocographic findings and early neonatal condition among women who underwent cesarean delivery for non-reassuring fetal status in a tertiary maternity centre.

Materials and Methods

A retrospective descriptive study of 118 deliveries managed at a tertiary maternity centre was conducted. Medical records were reviewed for mode of delivery, indications for cesarean section, documented intrapartum CTG assessment, and neonatal Apgar scores.

Of the 118 deliveries, 49 (41.5%) were completed by cesarean section, 68 (57.6%) by vaginal delivery, and 1 (0.8%) by vacuum-assisted vaginal delivery. Non-reassuring fetal status was documented as the indication for cesarean delivery in 11 cases.

Four of these 11 cases lacked sufficient CTG and neonatal outcome data and were excluded from the detailed analysis. The final subgroup therefore comprised seven cases with documented Fisher scores and available Apgar scores.

Fisher scores recorded in the medical documentation were used for the analysis. NICE classification was assessed only when the original CTG tracing was available for retrospective evaluation. When a Fisher score had been documented but the original tracing was unavailable, the Fisher score was retained, while NICE classification was considered unavailable. Missing CTG parameters were not imputed.

Given the small sample size and the descriptive nature of the study, results were summarized using absolute numbers and percentages. No inferential statistical testing was performed.



World Conference on Agricultural and Earth Sciences

Hosted Online from Istanbul, Turkey

Date: 20th September, 2026

Website: <https://econferencia.com>

Results

Non-reassuring fetal status accounted for 11 of 49 cesarean deliveries (22.4%) and 9.3% of all 118 deliveries. Seven cases had sufficient information for detailed CTG and neonatal outcome analysis.

Documented Fisher scores ranged from 6 to 10 points. Three of seven women (42.9%) had a Fisher score of 10, one (14.3%) had a score of 8, and three (42.9%) had a score of 6.

Among the three cases with a Fisher score of 10, two available CTG tracings were classified as normal according to NICE; both neonates had Apgar scores of 7/8. In the third case with Fisher 10, the neonatal Apgar score was 6/7, while the original CTG tracing was unavailable for retrospective NICE classification.

The case with a Fisher score of 8 was classified as suspicious according to NICE and was associated with an Apgar score of 7/8.

Among the three cases with a documented Fisher score of 6, neonatal Apgar scores were 6/7, 7/8, and 7/8, respectively. The original CTG tracings were unavailable in these cases, preventing retrospective NICE classification.

Overall, two of seven neonates (28.6%) had an Apgar score below 7 at 1 minute. Both improved to 7 points at 5 minutes, and all seven neonates had an Apgar score ≥ 7 at 5 minutes.

The findings demonstrated heterogeneity in documented CTG assessment among cesarean deliveries performed for the same clinical indication. Notably, a reduced 1-minute Apgar score occurred in one case with Fisher 6 and one case with Fisher 10, whereas most neonates with either low or high Fisher scores had Apgar scores of at least 7 at 1 minute. Thus, within this small subgroup, the documented Fisher score did not show a simple correspondence with immediate neonatal condition.



World Conference on Agricultural and Earth Sciences

Hosted Online from Istanbul, Turkey

Date: 20th September, 2026

Website: <https://econferencia.com>

Conclusion

Cesarean deliveries performed for non-reassuring fetal status showed considerable heterogeneity in documented CTG findings, with Fisher scores ranging from 6 to 10. Although two neonates had Apgar scores below 7 at 1 minute, all reached an Apgar score of at least 7 by 5 minutes.

The presence of both reassuring and abnormal CTG assessments among women delivered for the same clinical indication illustrates the complexity of intrapartum decision-making and the limitations of interpreting the indication for operative delivery from a single documented CTG score. Because of the small sample size and incomplete availability of original CTG tracings, these findings should be considered descriptive and cannot be used to estimate the diagnostic performance of Fisher or NICE criteria.

Standardized CTG interpretation, systematic documentation, and preservation of original tracings are important for subsequent clinical audit and for evaluating the relationship between intrapartum fetal surveillance, decisions regarding operative delivery, and neonatal outcomes.