

BACKGROUND

The leading indication for intrapartum caesarean section is fetal distress. This study was taken up to find out the efficacy of continuous fetal heart rate monitoring during labour, by analysing the cases of caesarean sections done in view of non-reassuring fetal heart during labour which is detected by cardiotocography (CTG) and correlating these cases with the perinatal outcomes.

AIM AND OBJECTIVE

To correlate perinatal outcome amongst women undergoing emergency LSCS for abnormal fetal heart rate patterns and to identify the associated antenatal and intrapartum risk factors.

MATERIALS AND METHOD

This was a hospital based prospective observational study done over a period of one and a half years from September 2019 to February 2021. Women with singleton live pregnancies at more than 36 weeks period of gestation with cephalic presentation and no known fetal anomalies who were taken up for emergency LSCS in view of non-reassuring fetal heart status and in whom intra-uterine resuscitation had failed, were included in the study. The CTG trace responsible for the decision was categorised using the NICHD three-tier foetal heart rate interpretation system (2008) and findings were correlated with the perinatal outcomes like the APGAR score which was recorded at 1 minute and 5 minute and the cord blood pH which was sent for all cases, neonatal outcomes in relation to NICU admission and requirement of other supportive measures studied.

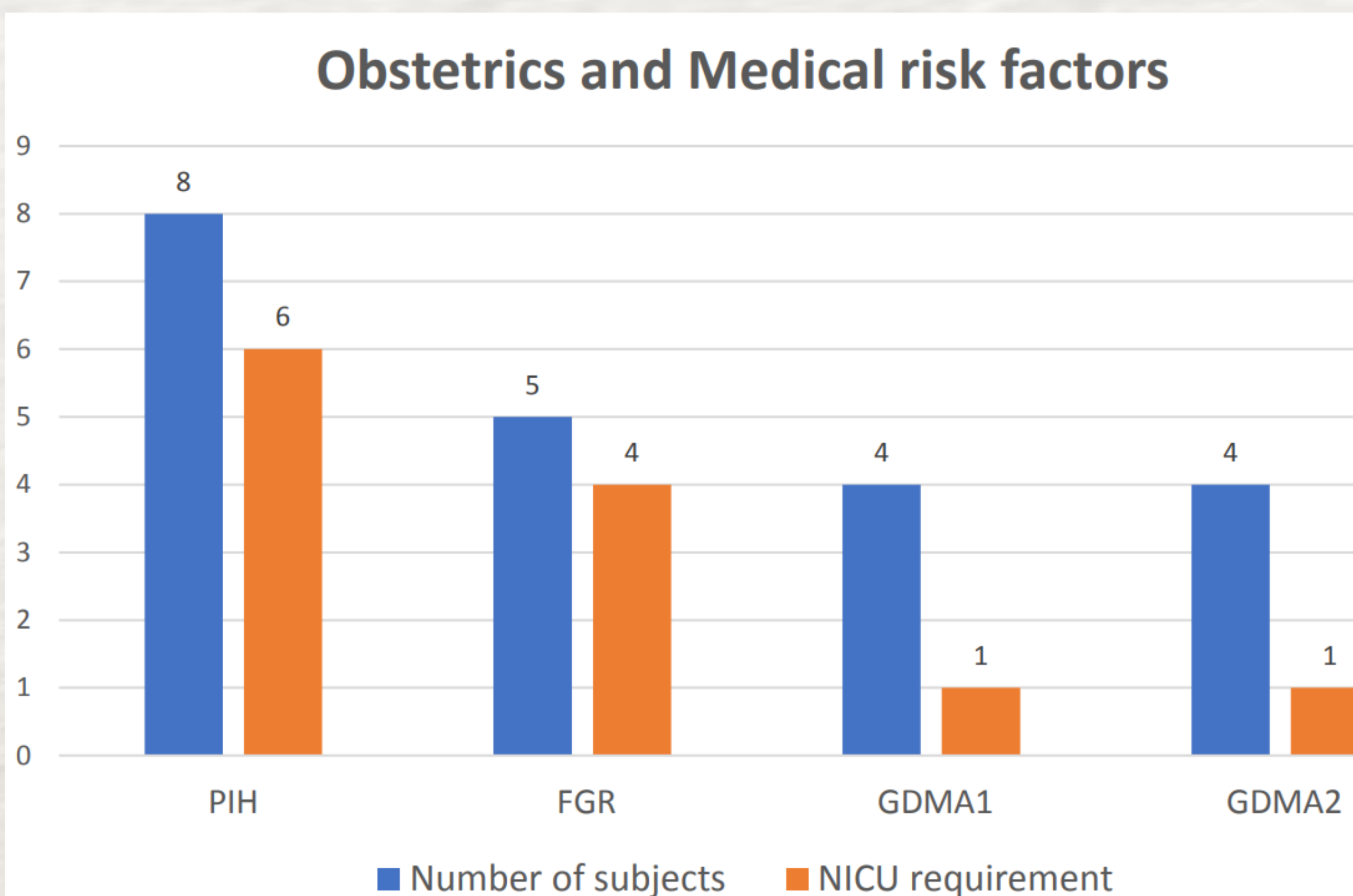
A Caesarean section for non-reassuring cardiotocography was considered “appropriate” if one or more of the following outcomes occurred: 1-minute Apgar <3, 5-minute Apgar <7, cord blood pH < 7.2, resuscitation required, or NICU admission was required.

RESULTS

Total number of cases studied : 151

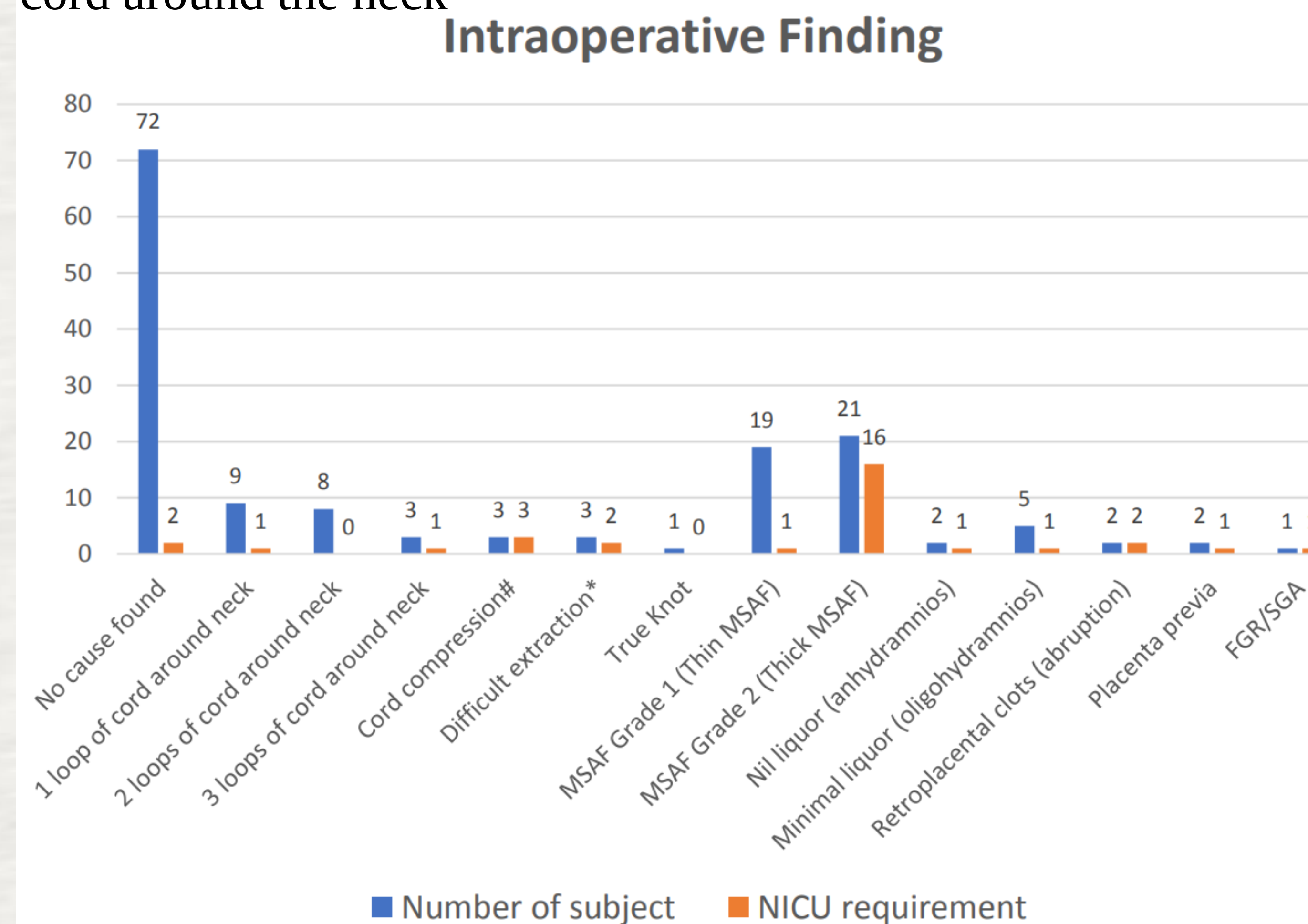
MATERNAL DEMOGRAPHICS:

- Out of the 16 cases above the age of 30 years, 11 babies (68.8%) required NICU admission after delivery.
- There were 7 babies born to mothers who had irregular ANC's or no ANC's in their pregnancy out of which 6 babies required NICU admission post delivery.
- 12 out of the 17 babies born at or after 40 weeks period of gestation required NICU admission.
- Out of the 8 cases with PIH, 6 babies were admitted in the NICU and 4 out of 5 babies with FGR were admitted in the NICU



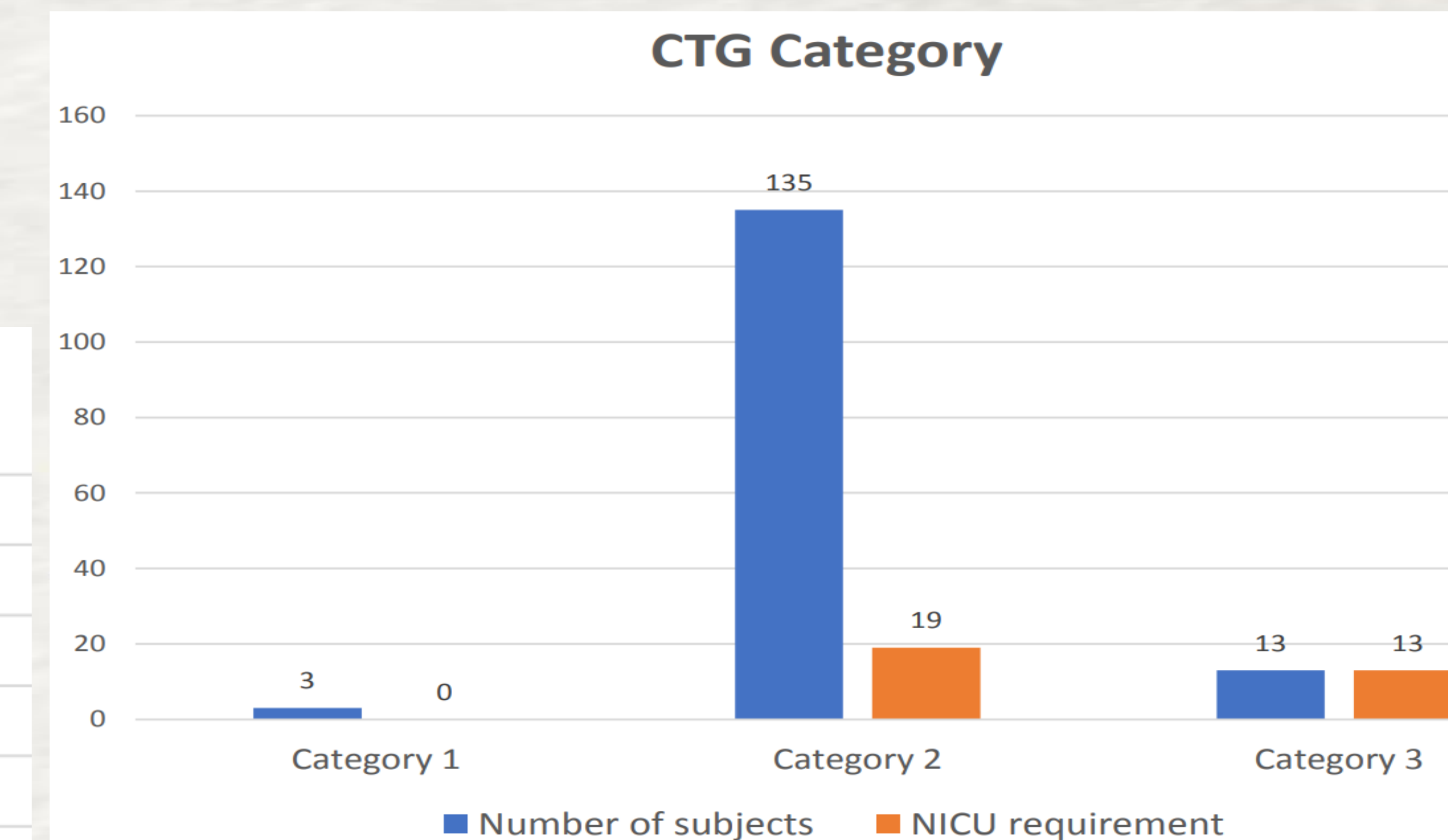
INTRA-OPERATIVE FINDINGS:

Out of 151 total patients, 79 (52.3%) cases had significant intra operative findings, 40 (26.48%) cases had MSAF out of which 17(42.5%) babies required NICU care and 13.24% had cord around the neck



CTG TRACES:

89.4% CTG traces fell in category 2. Only 19 (14.07%) of the category 2 CTG trace babies required NICU, even though 66 cases (48.89%) with category 2 CTG had significant intra-operative findings. All 13 caesareans (8.6%) taken up in view of category 3 type of CTG trace were considered appropriate. In the study 29.19% with fetal distress had poor perinatal outcome. 5 babies were intubated, they had APGAR of less than 3 at 1 minute and less than 7 at 5 minute, these babies also had the cord blood pH less than 7.2, all of them had category 3 type of CTG trace. 2 out of the 5 babies expired. Neonatal outcome was poor when associated complicating risk factors were present.



CONCLUSION

- We observed that the abnormal fetal heart rate patterns detected by CTG did not correlate well with early neonatal outcomes, resulting in a higher rate of caesarean section.
- The association of CTG category 3 with low APGAR score and cord blood pH < 7 and the rate of NICU admission was highest.
- Patients who had PIH, IUGR, cord presentation or cord prolapse and MSAF had highly significant association with adverse perinatal outcome in our study.
- On the contrary, lack of adverse outcomes and increased rates of caesarean sections could be a reflection of the fact that our obstetrics unit takes decisions at a time before clinically significant compromise can occur.

REFERENCES

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