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Original Research Article

New World Health Organization labour care guide in reducing intrapartum caesarean section rates at tertiary care hospital-Hassan institute of medical sciences, Hassan

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ABSTRACT

Background: The Aim of this study was to assess whether labour monitoring using new WHO LCG will result in reducing intra partum caesarean sections.

Methods: A analytical study was conducted from the month of September 2022 to January 2023 among 1735 pregnant women admitted at Hassan institute of Medical Sciences, in active phase of labour (5cm cervical dilatation and above) after obtaining informed consent.

Results: In the present study, the New WHO Labour Care guide was plotted for 1735 pregnant women among which 1668 (96%) of the total patients had vaginal delivery, while 67 (4%) of the patients underwent Cesarean Section. Among the patients who underwent Cesarean Section it was found that 1082 (94%) of the total Cesarean Sections were in latent phase of labour before plotting of the new WHO Labour care guide whereas only about 67 (6%) of Cesarean Section were conducted in active phase of labour.

Among the patients who underwent LSCS in the active phase of labour majority were due to fetal distress 29(43%), 21(31%) due to Cephalopelvic disproportion, 13(20%) due to Non progression of labour and about 4(6%) due to Deep Transverse Arrest

Conclusions: Majority of the caesarean sections were conducted in the latent phase of labour. The New WHO Labour Care guide has reduced the occurrence of intrapartum caesarean sections in the active phase of labour. However the overall rate of caesarean section must be controlled by reducing the number of Cesarean Sections conducted in latent phase of labour, that is before plotting the New WHO labour care guide.

Keywords: Labour care guide, Active phase of labour, Caesarean section rate

INTRODUCTION

Caesarean section rates have been steadily increasing over the past few years all around the world, 12.1% in 2005 to 21.1% in 2015.¹ In India too, the rates of caesarean deliveries have increased alarmingly, from 8% of deliveries in 2005 to 17% of deliveries in 2016.² The National family health survey (NFHS) revealed that the national C-section delivery rate stands at 21.5 per cent,

way higher than world health organization's ideal 10-15%.³ Rise in caesarean section rates worldwide is a worrisome trend due to the various complications associated with caesarean surgery such as increased blood loss, infections, increased maternal morbidity and mortality. Subsequent pregnancies following caesarean section become high risk pregnancies and pose various challenges in the form of uterine rupture, adherent placenta, intra-abdominal adhesions, scare dehiscence,

scar rupture, scar pregnancy, isthmocele. As per WHO, no region in the world is justified in having a caesarean section rate of greater than 15%.⁴ Reducing the incidence of primary caesarean section is the need of the hour to bring down caesarean section rates over all.

The new WHO labour care guide (LCG) was introduced by WHO in 2015, a labour monitoring tool that can be used in all settings and makes provision for safe and respectful labour experience.⁵ Previously Partograph was most commonly used for labour monitoring tool. The LCG differs from the Partograph in various aspects. While the partograph recorded the labour from 4 cm cervical dilatation, the LCG considers onset of active labour to be from 5 cm cervical dilatation. Also, the LCG has a column for monitoring of second stage of labour, but the Partograph plotting ends on reaching full cervical dilatation. Shared decision making, provision of labour companion are other important aspects covered in the LCG. Apart from all of these, the major difference between the partograph and the LCG is the time allowed for reaching full cervical dilatation after start of active labour. While the Partograph follows a strict 1cm/hour expected rate of dilatation, LCG provides different alert values at different stages of cervical dilatation until full cervical dilatation is reached. The duration of labour in the active phase of labour according to the old Partograph is 10hours. Whereas the new modified labour care guide partograph has a total duration of 18.5hours, by increasing the duration of 2nd stage of labour by 3hours to promote normal vaginal delivery in a normally progressing labour.

METHODS

Study type, place and duration

Current study was an analytical study conducted at department of obstetrics and gynaecology, Hassan institute of medical sciences from September 2022 to January 2023.

Inclusion criteria

All women admitted in Labour ward in active phase of labour (cervical dilatation >5cm), after obtaining consent.

Exclusion criteria

Previous LSCS cases and Non cephalic presentation were excluded.

Procedure

All pregnant women in active phase of labour (>5cm cervical dilatation) were considered as study subjects. Labour progress was monitored and plotted on the New WHO labour care guide. Outcomes of labour, incidence of intra partum caesarean section rates and the reasons for caesarean section after the onset of active phase were studied and analysed.

Statistical analysis

Data will be collected and it will be exported to Microsoft Excel sheet version 16.2. For statistics analysis statistical software will be used. Results were tabulated using Graphs, pie charts and bar diagrams. Frequencies and proportions will be calculated in percentages.

RESULTS

In the present study, the New WHO labour care guide was plotted for 1735 pregnant women for duration of 5 months and the progress of labour was monitored.

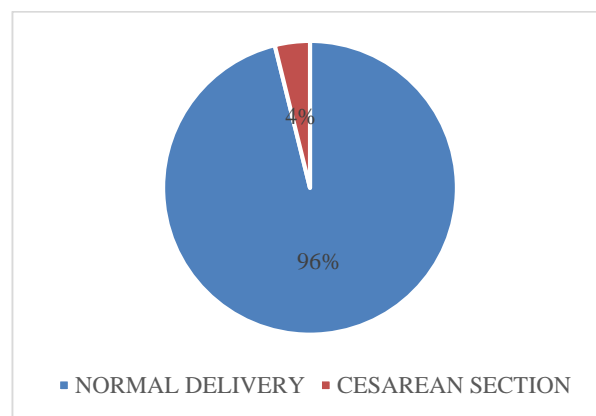


Figure 1: Outcome of labour following plotting of WHO new labour care guide.

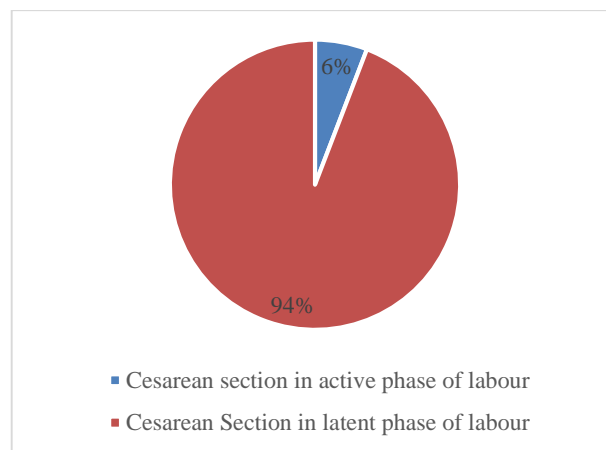


Figure 2: Distribution of Cesarean Section in active and latent phase of labour.

Out of 1735 patients for which the New WHO labour care guide was plotted, 1668 (96%) patients had vaginal delivery, while 67(4%) of the patients underwent Cesarean Section (Figure 1). On comparing the rates of Cesarean Section, it was found that 1082 (94%) of the total Cesarean Section were done before the plotting of New WHO Labour Care guide i.e. before the onset of active phase of labour and only about 67 (6%) of Cesarean Section were done following the plotting of New WHO labour care guide i.e. after the onset of active phase of labour (Figure

2). Among the patients who underwent Cesarean Section in the active phase of labour, 29 (43%) were due to fetal distress, 21 (31%) due to Cephalopelvic disproportion, 13 (20%) due to Non progression of labour and about 4 (6%) due to deep transverse arrest (Figure 3).

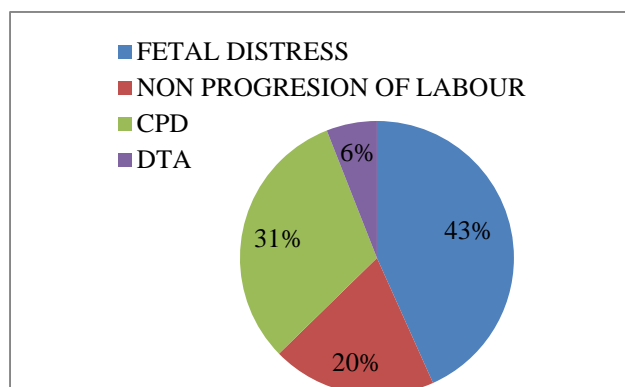


Figure 3: Indications for cesarean section following LCG.

Table 1: Indications for cesarean section following LCG.

Indication	N	%
Fetal distress	29	43
Non progression of labour	13	20
CPD	21	31
DTA	4	6

DISCUSSION

Over 140 million women give birth each year worldwide and the proportion of births attended by skilled health personnel is steadily increasing.⁶ To facilitate effective implementation of the WHO recommendations on intrapartum care, the new WHO Labour care guide was designed. The LCG was designed for health personnel to monitor the well-being of women and babies during labour through regular assessments to identify any deviation from normality. The new WHO Labour Care Guide seems to be a more robust tool that covers the first stage active phase and second stage of labor in a multifaceted way. The LCG is intended as a resource to ensure quality evidence-based care, with a special emphasis on ensuring safety, avoiding unnecessary interventions, and providing supportive care.⁵ Special attention is given to monitor and avoid prolonged labor, unnecessary oxytocin augmentation and cesarean deliveries. The LCG mainly focuses on clinical parameters rather than parameters obtained from USG.⁷ As published by Vogel et al this LCG might possibly revolutionize labor monitoring in a woman-centered manner with shared decision making.⁸

In our study, it was observed that about 6% of cesarean sections occurred after the onset of active phase of labour i.e. after plotting the new WHO Labour Care Guide. When compared to a study by Divya et al where only 1.5% cesarean sections were conducted when the labour was

monitored by the new WHO Labour Care guide.⁹ The incidence of cesarean section in active phase of labour due to arrest of labour was about 20% in our study compared to 1.7% in a study by Anna et al.¹⁰ This could be due to a smaller size in our study compared to the study by Anna et al, Vogel et al in his study concluded that women who were admitted for antepartum caesarean section do not experience labour, and therefore do not require a LCG as part of their care and hence anticipation of effectiveness of labour care guide in reducing antepartum caesarean rates was not possible.¹¹ This was similar to our study where we observed that a maximum (94%) of caesarean sections occurred in latent phase of labour before plotting of the new WHO Labour care guide, necessitating to reduce the number of caesarean sections conducted before the onset of active phase of labour, and thereby decreasing the caesarean section rates. However, there are hardly any studies determining the rates of intrapartum caesarean section after monitoring using the new WHO Labour Care Guide for comparison with our present study which necessitates further need for studies. As said by Ghulaxe et al Labour Care guide has evolved to motivate best practices with proof-based, compassionate care during delivery, which add advancement of excellent, considerate care for all women, new mothers, and their families.^{12,13}

Limitations

Limitations of current study were that this study was conducted to study the effectiveness of the new WHO Labour Care guide in reducing the intrapartum caesarean rates. However, we did not compare the results with that of the conventional simplified WHO partogram. This comparison would have helped us in weighing the benefits and disadvantages of the new WHO Labour care guide and simplified partogram.

CONCLUSION

In the present-day obstetric practice, cesarean sections are on a higher trend. It is necessary for proper monitoring of normal labour using the New WHO Labour care guide to know the progress of labour. In our study it was found that the number of caesarean sections in the latent phase of labour were more compared to the caesarean section conducted in active phase of labour. It is the need of the hour to analyse the indication for caesarean section in latent phase of labour so that caesarean section rate can be brought down.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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