ORIGINAL RESEARCH PAPER
Volume - 10 | Issue - 03 | March - 2021 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

COMPARATIVE STUDY ON NEONATAL OUTCOME IN ELECTIVE CESAREAN SECTION DONE AT GESTATIONAL AGE <39 WEEKS VERSUS 39 WEEKS

Gynaecology

Sunita Singh* Assistant Professor, Department of Obstetrics & Gynaecology, Patna Medical College & Hospital, Patna, Bihar, India.*Corresponding Author

Chander Kiran Professor & Head of Department of Obstetrics & Gynaecology, Patna Medical College & Hospital, Patna, Bihar, India

ABSTRACT

Aims & Objectives: This study was done to evaluate the neonatal outcome in elective cs done before gestational age of 39 wks versus those done at 39 wks. **Design:** This was a prospective study done during June 2019 to Dec 2020, in obs & gynae dept. of Patna Medical College & Hospital, Patna, Bihar, India. 300 pts in whom elective cs was done were selected for the study. Data was analyzed for indication of cs, and neonatal outcome. **Result:** Previous cs was most common indication (56.33%) followed by malpresentation (28.0%). Average birth wt was lower, whereas NICU adminion, neonatal Jaundice were higher in elective cs done before 39 wks. **Conclusion:** Neonatal outcome was better when elective cs was done at 39 wks compared to that done before 39 wks.

KEYWORDS

Elective cs – 39 wks – better neonatal outcome

INTRODUCTION

According to WHO rate of cesarean section should be 10-15%,higher rate of cs offers no additional benefit regarding neonatal morbidities. But it is seen that rate of cs is increasing day by day, cs rate in US being 32%. In India rate of cs is 17%. As the rate of cs is increasing ,rate of elective cs is also increasing. Elective cs is being done on maternal request also. British and American society in obstetrics recommends that elective cs should be done at>39 weeks as it decreases risk of respiratory problems in neonate. Elective cs means that operation is done at prearranged time during pregnancy before onset of labour to ensure best quality of obstetric care, anesthesia, neonatal resuscitation and nursing care. So this study was done to evaluate whether elective cs done before 39 weeks increases risk of adverse neonatal outcome.

AIMS &OBJECTIVES

To evaluate the neonatal outcome in elective cs done before 39 weeks versus those done at 39 weeks.

MATERIAL & METHOD

This was a prospective study done during June 2019 to December 2020 in Obstetrics and Gynaecology dept of Patna Medical College and Hospital , Patna, Bihar India. Total 300 cases in whom elective cs was planned were selected for the study. All were booked cases (i.e. at least 3 antenatal check up was done). Pts were divided in two groups. Group A(<39weeks)-in which elective cs was done at 37^{+0} to 38^{+3} days. Group B(39weeks)-where elective cs was done at 38^{+4} days to 39^{+3} days. Gestational age was calculated by LMP or first trimester USG scan if available. Only singleton pregnancy was included as multiple pregnancy itself is a high risk factor for adverse neonatal outcome. Exclusion criteria was -multiple pregnancy, antepartum hemorrhage, hypertensive disorder, Diabetes mellitus, heart, liver and kidney disease. In this study there was inclination for elective cs at lesser gestational age in case of previous cs scar.

Detailed history, general and obstetrical examination was done. Routine antenatal investigations were done. Data was analyzed for incidence of elective cs done at <39 weeks and at 39 weeks, indication for elective cs, neonatal outcome like-baby wt, Apgar score <7 at 1 min and 5 min, neonatal jaundice, NICU admission, early neonatal death.

RESULTS

-In this study no. of elective cs done before 39 wk was 205 (68.3%) and no of elective cs done at 39 wk of gestation was 95 (31.6%)

Table-1 Indication for elective cs

Indication	No of cases- 300	%
Previous CS	169	56.33%
Malpresentation	84	28.0%
CPD	17	5.66%
Pregnancy after infertility treatment	11	3.66%
Bad obs History	10	3.33%
Others	9	3.00%

Above table shows that previous cs was most common indication followed by malpresentation

Table 2 – Neonatal outcome

	<39 weeks (no-205)		39 weeks (no-95)	
Average Birth Weight	3263 gms		3455 gms	
Apgar at 1min <7	9	4.39%	4	4.21%
Apgar at 5min <7	7	3.41%	2	2.10%
Neonatal Jaundice	21	10.24%	3	3.15%
NICU admission within 48 hrs	19	9.26%	8	8.42%
NICU admission within 7 days	21	10.24%	9	9.47%
Early Neonatal death	1	0.48%	0	0

Above table shows that average birth wt was lower in <39 wks and neonatal outcome was better at 39 wks

DISCUSSION

- In this study incidence of elective cs done before 39wks and at 39wks was 68.3%and 31.6% respectively.In a study done in United States by Tita et al it was reported that 29.5% elective cs were done at 38 wks and 49.1% at 39 wks whereas 38.8% of repeat elective cs was done at <39wks.In another study done in Nigeria by Okeke et al it was seen that 71.3% of elective cs was done at <39 wks and 28.7% at >39wks.R K White et al reported 56.6% elective cs done in <39wks.
- In this study most common indication for elective cs was previous cs(56.3%) followed by malpresentation (28%) J Glavind et al reported that in <38 wks 20.1% elective cs was done for previous cs,17.9% for malpresentation whereas in >38 weeks 16%were for previous cs and 14.1% for malpresentation. Okeke et al found that 43.3% of elective cs was for previous cs and 31,7% for malpresentation.
- Average birth wt was low(3263gms) in <39 wks compared to (3455gms) in 39 wks. J Glavind et al reported less average birth wt(3369gms) in elective cs done before 39 wks compared to 3509gms in 39 wks.
- In this study incidence of Apgar score <7 at 1 min was similar in both groups but Apgar score <7 at 5min was higher (3.41%) in <39wks compared to(2.1%) in 39 wks.J Glavind et al also reported that 1min Apgar score was similar in both groups but 5 min Apgar score <7 is seen more in <39wks compared to elective cs done at 39wks.In Nigerian study low apgar was seen to be 6.7% in <39wks compared to 0.6% in 39 wks.In Nigeria score less than 6 is considered low.
- In present study incidence of neonatal jaundice was 10.24% in <39 wks compared to only 3.15% in 39wks.Okeke et al also found higher incidence 11.6% in <39wks
- In this study it was seen that in <39 wks NICU admission both within 48 hours and 7 days is higher 9.26% and 10.24% respectively as compared to 8.42% and 9.47% in 39wks gp. Okeke et al found NICU admission 22.6% and 1.8% in <39 wks and

at39wks repectively. J Glavind et al in Denmark showed that NICU admissipn within 48hrs was 13.9% in 38wks elective cs versus 11.9% in 39wks .NICU admission within 7 days was 15.9% and 14% in respective gps.Tita et al also supported better neonatal outcome in elective cs at 39wks.

- In this study one (0.48%) early neonatal death was reported in <39 wks ,no early neonatal death was reported in 39 wks gp.Nigerian study reported 0.6% perinatal death in <39wks and none in 39wks.

CONCLUSION

It was seen that at present more cases of elective cs are done before 39wks and most common indication is previous cs. Average birth wt was higher and neonatal outcome was better when elective cs was done at 39wks as compared to lower gestational age.So we should try to do elective cs at 39wks as it has less neonatal morbidities and mortalities.

REFERENCES

1. WHO statement on cesarean section rate- 2015 WHO/RHR/15.02
2. World Health Organisation (WHO) – Appropriate technology for birth Lancet 1985;2
3. Cesarean section rates in OECD countries in 2018
4. J Glavind et al- BJOG- an international Journal of Obs & Gynae vol 120, Issue 9
5. Okeke et al – Maternal & fatal outcome of elective cs at 37-38 wks versus 39 completed weeks- American Journal of clinical medicine research- Vol-1, Issue 2, 2013
6. Tita et al – Timing of elective cesarean delivery at term and neonatal outcome- New Engl J Med. 2009, 360
7. RK Whyte – Pediatric child Health 2010 Dec 15 (10)
8. NIH State of the Science conferences statement, CS on maternal request- Obstet Gynecol 2006
9. D.C Dutta- Textbook of Obstetrics- 9th edition