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A COMPARITIVE STUDY OF MATERNAL AND FETAL MORBIDITIES IN ELECTIVE VERSUS EMERGENCY CAESAREAN SECTION IN TERITIARY CARE HOSPITAL, VISAKHAPATNAM, AP.

Gynaecology

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ABSTRACT

INTRODUCTION: Cesarean section is the most common surgical procedure done in obstetric unit. With advanced surgical and anesthesia techniques, maternal mortality has come down in recent years. Still postoperative complications occur in these patients. Among the elective caesarean and emergency caesarean groups, complications are slightly on the higher side in emergency group as compared to elective cases.

AIM: The study aimed to compare the maternal and fetal morbidities in elective as well as emergency caesarean section cases.

METHOD: The study was a retrospective one over a period of one year. Data were collected from case records and compared. In total, 300 women were recruited for the study. Among these 150 had undergone elective caesarean and rest 150 had emergency caesarean section.

CONCLUSION: Both elective and emergency caesarean sections are associated with certain complications in mother and fetus. But on comparing, both maternal and fetal complications were slightly higher in emergency caesarean cases than elective caesarean cases. Hence regular antenatal check and picking up of high risk patients can reduce the incidence of emergency caesarean by prior planning.

KEYWORDS

INTRODUCTION

Birth of the fetus through an incision on the abdomen and the uterine wall is known as caesarean delivery. It is the most common surgical procedure performed in any obstetric unit (WHO). Even though it is associated with maternal morbidity, with better surgical techniques and improved anesthesia methods, the complication rate has come down. In a previous study, it was found that maternal mortality due to caesarean was 2.2 per 1000000 in the United States .Caesarean section is associated with more pain, trauma and other complications and more expense, as compared to vaginal delivery . Depending on the indication, it can be elective or emergency in nature. Elective caesarean is when the procedure is done at a prearranged time and hence ensures better tea m for management. In emergency caesarean, it is done due to acute emergencies. The complications are usually less in case of elective caesarean as compared to emergency. Manytimes emergency caesarean section may have to be done, in view of maternal or fetal distress even when elective caesarean section has been planned. This study Compares the maternal and fetal outcome in elective as well as emergency caesarean sections.

METHODS

The study was a retrospective one, conducted in the department of obstetrics and gynecology, GITAM medical college, Visakhapatnam over a period of one year, from January 2016 to January 2017.All women with singleton pregnancy who underwent LSCS were enrolled. Women were divided into two groups, depending on whether they had elective or emergency caesarean section. Both maternal and perinatal outcome in each group were compared. Preterm deliveries were excluded from the study. Medical records were collected and history and investigations were reviewed. Each group consisted of 150 women. Maternal data like mode of previous delivery, indication for LSCS, any complication in previous caesarean were collected. Neonatal data included Apgar score and perinatal complications. Admissionto NICU were considered. Indications for caesarean were previous LSCS with CPD, fetal distress, malpresentations, failed induction, dystocia, antepartum hemorrhage, cephalopelvic disproportion and others. Postoperative complications included UTI, abdominal distension, wound infection, wound dehiscence and fever. Need for blood transfusion was also studied. Fetal complication was mainly respiratory distress. Student's t-test, chi-square test or Fisher's exact were used for analyzing variables. P value of <0.05 was considered as statistically significant.

RESULTS

The study was done for a period of two years. During this period, total no of deliveries were835, of which 529 were vaginal deliveries. Out of 306 cesarean cases, 150 elective and 150 emergency cases were taken for the study. and compared. Being preterm, 6 cases were excluded.Most of the elective cases had regular antenatal checkups in our institution, whereas in the emergency cases 82% were booked and others referred from outside. Maternal age was comparable, with age ranging from 18- 35 years in both groups. Depending on the socioeconomic class, 69% belonged to high class and 31% in low class, in the elective group. In emergency cesarean cases 82% belonged to low socioeconomic class.In elective cesarean group, 24 cases (16%) were primigravida and126 cases (84%) were multigravidas where as in emergency group, it was 97 (64.66%) and 53 (35.4%) cases respectively.Incidence of antenatal complications like gestational diabetes mellitus (GDM) and preeclampsia were more in elective cesarean cases when compared to emergency caesarean cases. In elective group, 14 cases (9.3%) and in emergency group, 11 cases (7.3%) had GDM. Pregnancy induced hypertension were found in 9 cases (6%) in elective and in 6 cases (4%) of emergency cases. But the differences were not statistically significant. Anemia was found in 7 cases (4.6%) of elective and 31 cases (20.6%) of emergency cases. Incidence of anemia was significantly higher in the emergency cesarean group.Indications of cesarean section in both groups is shown in Table 1. Most common indication was previous cesarean section with CPD, in both groups (73.3% and 44.6%), but fetal distress was more in emergency group (20.6%) compared to elective caesarean group (10%).Complications in postoperative period is given in Table 2. Rate of postoperative complications were 40.7% in emergency group and 19.4% in elective group, and this difference was statistically significant ($p < 0.001$). Most common complication was abdominal distension and UTI in both groups. Abdominal distension was found in 9 cases (6%) in elective and 25 (16.6%) in emergency cases, and the difference was significantly high ($p<0.001$). Other complications like UTI, wound infection etc were similar in both groups (UTI-10% and 14.6% and wound infection- 1.3% and 6%). 8, in 94.6% of babies (142 babies) born by elective caesarean compared to 86% of babies (129 babies) born by emergency caesarean section ($p>0.05$). Among the babies born by emergency LSCS, 28.6% (43 babies) required NICU admission immediately after birth, compared to 4.6 % (7 babies) of babies born by elective LSCS group, which was statistically significant. Indication for admission was respiratory distress in majority of the cases.

Table 1: Indications of cesarean section

Indication	Elective	%	Emerge ncy	%	P value
Failed induction	0	0.0	10	6.6	0.004
Fetal distress	15	10	31	20.6	0.016
Previous CS with CPD	110	73.3	67	44.6	0.0001
Malpresentation	5	3.3	12	8	0.134

Dystocia	18	12	20	13.3	0.862
APH	0	0.0	5	3.3	0.06
BOH	2	1.3	0	0.0	0.498
Others	0	0.0	5	3.3	0.06
Total	150		150		

Table 2: Post operative complications of elective and emergency cesarean

Complications	Elective	%	Emerge ncy	%	P value
Fever	3	2	7	4.6	0.107
Wound infection	2	1.3	6	4	0.081
Wound dehiscence	0	0.0	1	0.6	_
UTI	15	10	22	14.6	0.081
Abdominal distension	9	6	25	16.6	0.001
No complications	121	80.6	89	59.3	0.0001
Total	150		150		

DISCUSSION

Cesarean section is the most common operative procedure done in obstetrics department. Even though it can be lifesaving, the incidence has increased now. With advanced surgical and anesthesia techniques and better nursing care, the rate of maternal and fetal morbidity has come down. But still some complications occur with cesarean section, with increased incidence in emergency cases as compared to elective cases. The present study compares the maternal and fetal outcome in these two groups.The age group in both groups were from 18 to 35years, which did not differ significantly. A previous study by Ghazi A has shown similar results .In the elective caesarean group, 16% were primigravida and 84% were multigravida and in the emergency group, it was 64.66% and 35.44% respectively. A previous study reported 22% as primigravida and 78% as multigravida in emergency cesarean and 8% as primigravida and 92% as multigravida in elective cesarean group.Most common indication in both groups were previous LSCS with CPD. In elective group 73.3% and in emergency group 44.6% underwent repeat cesarean for this indication. Fetal distress was the reason in 10% in elective and 20.6% in emergency group. Dystocia constituted 18% in elective and 20% in emergency group. Other indications were malpresentation, failed induction, APH and BOH and were similar in no in both groups. In a previously reported study, the indications of cesarean sections were cephalopelvic disproportion, APH and fetal distress.Postoperative complications were found in 40.6% in emergency cases as compared to 19.3% in elective cases. The most common complications were abdominal distension and UTI in both groups. In elective group 15% had UTI, 9% abdominal distension and 80.6% without any complications. In emergency group, 16.6% had abdominal distension and 22% had UTI. Only 59.3% were without complications. This difference is statistically significant. Postoperative maternal complications were found to be high in emergency cases as compared to elective cases in various studies .Regarding neonatal outcome, in both groups, majority of babies were born with APGAR score above 8 at 5 minute (94.6% in elective vs 86% in emergency). Even though the number of babies born with low APGAR score was higher in emergency caesarean group, the difference was not significant in the present study. This is in contrast to the results of study by Rehana N et al who found significantly higher rate of birth asphyxia in babies born by emergency LSCS.In the present study, among the babies born by emergency LSCS, significantly more number of babies required NICU admission immediately after birth. Respiratory distress soon after birth, was the indication for neonatal admission, which was more in babies born by emergeny LSCS as compared to elective cases. This is in favour of a study by Najam R and Sharma R. Daniel et al in their study found no statistically significant difference in respiratory distress among babies born by elective or emergency caesarean sections .

CONCLUSION

In modern obstetrics, caesarean section is safe. But the proportion of maternal and perinatal complications is more in emergency caesarean as compared to elective caesarean. Even though we cannot avoid emergency caesarean, the rates can be brought down, if cases are properly selected. With regular antenatal checkups, high risk patients can be detected and elective caesarean planned, so as to reduce the complications of unplanned emergency caesarean section. Fully equipped NICU and pediatrician should be made available.

REFERENCES

1. Clark Sl, Belfort M, Dildy G, Herbst M, Mayaers J, Hankins G. Maternal death in the 21st century: Am J Obstet Gynecol.2008 PubMed NCBI.
2. Cunningham FG, Hanth VC, Strong VD, Kappus SS. Infections and morbidity following cesarean section. Obstet Gynecol. 1978;52: 65661
3. Minkoff HL, Schwarz RH. The rising cesarean rate; can it safely be reversed? Obstet Gynecol. 1980 ;56: 135-43.
4. GasprovicElvedi, Klepac P, Peter B. Maternal and fetal outcome in elective versus. CollAnthropo. 2006- PubMed- NCBI.
5. Ghazi A, Karim F, Hussain A, Ali T, JabbarS.Maternal morbidity in eme. -J Ayub Med Coll Abbottabad.2012 Jan-Mar- PubMed NCBI. Journal of Ayub Medical College. Abottabad.2012 Mar;24(1):10-3
6. B Unnikrishnan. A recent way of evaluating cesarean birth. J O bstetGynecol India. November-December 2009; Vol.59(6): pp 547-51
7. Nwobodo E, Isaah A, Panti A. Elective cesarean section in a tertiary hospital in Sokoto,north western Nigeria Nwobodo E I , Isah A Y, Panti A Niger Med J .Nigerian Medical Journal. 2011; 52 (4):263-5
8. VillarJ,Valladares E, WojdylaD,Zavaleta N, CarroliG,VelazcoA,et al. Caesarean delivery rates and pregnancy outcomes: the 2005 WHO global survey on maternal and perinatal health in Latin America.Lancet. 2006; 367:1819-29.
9. Hassan S, Tariq S, Javaid MK. Comparative analysis of problems encountered between patients of elective caesarean section and patient for whom elective caesarean section was planned but ended up in emergency.Professional Med J .2008 ;15:211-5.
10. Leigh DA, Emmanuel FX,Sedgwick J, Dean R.Post-operative urinary tract infection and wound infection in women undergoing caesarean section: a comparison of two study periods in 1985 and 1987.Journal of hospital infection.1990;15(2): 107- 16.
11. VesnaEG,TajanaKP,Branimir P. Maternal and fetal outcome in elective versus emergency caesarean section. Coll Antropol.2006;30(1);113-8.
12. Rehana N, Reena S. Maternal and fetal outcomes in elective and emergency caesarean sections at a teaching hospital in north India. A retrospective study. Journal of Advance Researches in Biological Sciences. 2013; 5:5-9.
13. Najam R, Sharma R. Maternal and fetal outcome in elective and emergency caesarean sections. J Adv Res Biol Sci. 2013; 5 ;5-9.
14. Daniel S, Viswanathan M, Simi, Nazeema. Comparison of fetal outcomes of emergency and elective caesarean sections in a teaching hospital in Kerala. Academic medical journal of India. 2014;23.