Section: OBG

Original Research Article

COMPARISON OF COMPLICATIONS BETWEEN ELECTIVE AND EMERGENCY CAESARIAN SECTION: HOSPITAL BASED PROSPECTIVE STUDY

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Abstract

Background: Cesarean section is called emergency when the operation is performed due to unforeseen complications, arising either during pregnancy or during labor without wasting time following the decision. It can be done for emergency or elective depend on pregnancy condition of mother and fetus. The presents study aimed to compare the complications developed during emergency and elective caesarian section. **Materials and Methods:** This study was conducted in the department of OBG, AIMS, Belluar. Study was done during the period of January-December 2022. Based on inclusion and exclusion criteria a total of 112 cases were included in the study. All the patients study procedure was explained and informed consent was obtained. Immediate and delayed complications of elective and emergency caesarian section was noted and compared. Statistical Package for Social Sciences (SPSS 20.0) version used for analysis. **Result:** Rigors and fever are the most common complications in emergency and elective caesarian section immediate postoperative. During delayed postoperative breast engorgement and wound infection are more compared to other complication in patients underwent emergency caesarian section. Wound infection, respiratory infection, fever and breast engorgement are most common complications during delayed postoperative. Neonatal morbidity and mortality high in elective caesarian compared to emergency caesarian sections. **Conclusion:** This study results conclude that development of immediate and delayed postoperative complications are similar but morbidity and mortality are higher in emergency caesarian section than elective caesarian section.

INTRODUCTION

Cesarean section is called emergency when the operation is performed due to unforeseen complication arising either during pregnancy or during labor without wasting time following decision. As in the case of many third world developing countries most of the cases in our country come under this group.[1-3] A significant number of patients are admitted in a stage of obstructed labour in the larger teaching hospital in metropolitan areas and more frequently in the district and the sub divisional hospitals. In these cases, irrespective of the fetal status, cesarean section should be decided on only one criterion, that is safety of the mother and equated against the facilities available in the hospital and the experience of the surgeon.[4] In most of the cases of emergency CS, operation is performed late in labour long after the rupture of membrane and gross infection. These cases are most of the time un booked, not on empty stomach unsuitable for general anesthesia.[5] Very rarely, in some booked patients, emergency CS has to be done, like patients with spontaneous rupture of membranes with cord prolapse, or in patients with borderline CPD where trial of labour is given and are taken up for cesarean section. The maternal and fetal morbidity and mortality is high in emergency CS. Elective cesarean section is called elective when the operation is done at a prearranged time during pregnancy to ensure best surgical condition. Here the CS is done under ideal conditions as a planned procedure. Marked contracted pelvis diagnosed in the last week of pregnancy, mild disproportion or contracted pelvis associated with complicated factors like elderly primigravida, bad obstetric history, prolonged pregnancy, toxemia and other conditions where placental insufficiency is likely, Rh-isoimmunisation where early intervention is needed are the subjects for elective sections.[6] There is a controversy regarding the time of elective section. McCausland recommended permitting patients to go into labour and then operating since it would give the baby better chance near term. Not to perform if the weight of the

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baby is less than 3000 gm and is small to wait for spontaneous labor. Section on a patient who is not in labour with membranes intact and whose infant weight at least 2,500gm at delivery was started by S. Crawford. The operation done at the onset of the labour pains has the advantage of giving the baby maximum benefit of intrauterine life, better formation of lower uterine segment facilitating the operation, minimum bleeding as the uterus is contractile, better drainage of lochia due to dilatation of cervix, but the only inconvenience is that the operation has to be done as an emergency procedure since labour may start ant time, and chance of placental insufficiency are there due to post maturity if pregnancy is prolonged.[7,8] Another study stress on the prevalence of prematurity in our country state that unless the patient is sure of her date and obstetrician is convinced of the maturity of fetus, it is unwise to do it as a planned procedure. With this background the present study aimed to evaluate the complications between elective and emergency caesarian section.

MATERIALS AND METHODS

Study type: Observational prospective study.
Study settings: The study was conducted in the department of OBG, AIMS, Bellur.
Study period: The study was conducted from January to December 2002.
Study population: A total of 102 cases were included in the study.
Procedure: All the selected pregnant women were explained about emergency and elective caesarian section procedure. According to the subject clinical and complications they were subjected to emergency or elective caesarian section. After surgery immediate, delayed complications, mortality and morbidity were recorded and analyzed.

Statistical analysis: The data was expressed in number and percentage. Statistical Package for Social Sciences (SPSS 20.0) version used for analysis. Chi squat test applied to find the statistical significant between two type of caesarian sections. P value less than 0.05 considered statistically significant at 95% confidence interval.

RESULTS

This study results showed that a total of 104 complications were developed during immediate postoperative period. 72 were in emergency and 32 in elective caesarian section. Rigors and fever were most common complication in immediate postoperative period of emergency and elective caesarian section. Spinal headache was observed more in emergency than elective surgery. Excess bleeding was present in 2 subjects underwent emergency section [Table 1]. Maximum number of delayed complications were observed in emergency section than elective section. Wound infection, fever and respiratory infection are most common in both caesarian sections. 14 subjects developed breast engorgement as delayed complication in subjects underwent emergency caesarian section. These difference between emergency and elective surgery showed significant difference [Table 2]. 0.80 % and 0.70% mortality and morbidity was observed in intraoperative emergency and elective caesarian section. Postoperative minor and major mortality and morbidity was high in elective compared to emergency this showed significant difference. Neonatal mortality and morbidity significantly high in elective than emergency caesarian section [Table 3].

Table 1: Comparison of immediate postoperative complications between emergency and elective caesarian section.

Immediate postoperative complications	Emergency caesarian section		Elective caesarian section		Total	
	Number	Percentage (%)	Number	Percentage (%)	Number	Percentage (%)
Fever	24	33.33	11	33.33	35	33.33
Abdominal distension	7	9.72	2	6.06	8	8.57
Rigors	28	38.89	13	39.39	41	39.05
Spinal headache	11	15.28	7	21.21	18	17.14
Excess bleeding	2	2.78	0	0.00	2	1.90

Table 2: Comparison of delayed postoperative complications between emergency and elective caesarian section

Delayed postoperative complications	Emergency caesarian section		Elective caesarian section		Total	
	Number	Percentage (%)	Number	Percentage (%)	Number	Percentage (%)
Urinary tract infection	3	5.77	1	4.76	4	5.48
Fever	6	11.54	4	19.05	10	13.70
Wound infection	9	17.31	5	23.81	14	19.18
Respiratory infection	5	9.62	5	23.81	10	13.30
Breast engorgement	14	26.92	4	19.05	18	24.66
Urinary tract subinvolution	6	11.54	1	4.76	7	9.59
Re-Suturing	8	15.38	1	4.76	9	12.33
DVT	1	1.92	0	0.00	1	1.37

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Table 3: Comparison of neonatal mortality and morbidity between emergency and elective caesarian section

Neonatal mortality and morbidity	Emergency caesarian section (%)	Elective caesarian section (%)
Intraoperative	0.80	0.70
Postoperative		
Major	0.00	3.40
Minor	2.50	13.10
Neonatal mortality	0.80	3.30
Neonatal morbidity	1.70	10.90

DISCUSSION

The total number of normal deliveries and vaginal operative deliveries were 491 (77.45%) and total number of CS was 102 (17.2%). Out of 102 CS, 79 cases were emergency cesarean sections giving a relative frequency of 71.3% and 23 cases were of elective caserean section with a relative frequency incidence of 22.54%.[9] The indications for elective CS were: previous LSCS, CPD, contracted pelvis, PET, post maturity, bad obstetric history, placenta previa, precious pregnancy. The most common indications for emergency CS were: previous LSCS, fetal distress, CPD, APH, PET, eclampsia, maternal distress, malpresentation, obstructed labour, contracted pelvis, BOH. Spinal anesthesia was used in 8 cases of planed elective sections and 68 cases of emergency caesarean sections. General anesthesia was used in one case of elective section and 8 cases of emergency cesarean section. Epidural anesthesia was given in 3 cases of elective section and 3 cases of emergency sections.[10] The incidence pf intraoperative complications encountered was significantly higher in emergency sections. The neonatal mortality and morbidity was significantly higher in emergency CS. The present comparative study elective and emergency CS clearly concluded that the elective CS is a fairly safer procedure when compared to an emergency CS. Therefore, it is better to do an elective CS by admitting patients earlier. Where in an indication for CS is predicted.[11] Thus the high rate of complications of emergency CS can be avoided. This requires an improvement in social obstetrics and quality antenatal care. Leigh DA et.al., study showed that maximum number of patients had UTI and wound infection.[12] In our study also maximum number of patients had similar infection. In this study more number of subjects had anxiety before undergo surgery. Ryding EL et.al explained that pregnant women undergo CS experience the psychological stress.[13] Selection of CS should be depend on the subject signs and symptoms and surgery outcome should have minimal complications.

CONCLUSION

This is to conclude that immediate and delayed complications were similar in emergency and elective caesarian section but mortality and mortality is high in elective compared to emergency.

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