**OUTCOMES OF COMPARISON BETWEEN EMERGENCY VS ELECTIVE LOWER SEGMENT CAESAREAN SECTION**

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**ABSTRACT:**

**Objective:** To compare emergency vs elective LSCS for their various outcomes.

**Methods:** This was a randomized controlled-trial, in which pregnant females irrespective of their duration of gestation, gravida and parity having age equal more than 20 years were included. The cases were subdivided into 2 equal groups. The cases in group A were operative for emergency C section surgery and those, who were in group B underwent elective surgery. These cases were then followed to look for various surgical outcomes.

**Results:** In this study total 150 cases of C section were included with 75 in each group. The mean age of the group A and B was 28.87±4.43 vs 29.54±5.13 years and mean duration of gestation at presentation was 37.13±2.56 vs38.67±1.39 weeks. SSI was seen in 3 (5.33%) cases in emergency group vs 2 (2.66%) in elective group with p= 0.07. PPH was observed in 2 (2.66%) of the cases each with p= 1.0 and both hysterectomy and maternal mortality was observed in 1 (1.33%) cases each in emergency group with p= 0.81 each.

**Conclusion:** Complications are rate are relatively higher in emergency as compared to elective C section and SSI is nearly significantly high in this group.

**Key words.** C section, PPH, SSI

**How to cite this article:** Malik T, Zahoor S, Zulfiqar S. Outcomes of comparison between emergency vs elective lower segment caesarean section. *Pak Postgrad Med J 2019;*30(3): 111-113

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**INTRODUCTION:**

Cesarean section (C section) is one of the most common surgical entity in Gynecological and Obstetrical departments and their number has exponentially expanded over the last quarter of the century and patterns is even on the ascent. This can be caused due to wide array of underlying emergency conditions and co morbid diseases but elective C section is also not uncommon these days. This rate has jumped up to the half of the deliveries as elective C sections in the industrialized countries. According to an Indian study, carried out in an undeveloped or developing country, C section is seen in almost 25% of the total deliveries.1-3

C section can broadly be classified as elective or emergency one. The most common indication for the C section is prior history of the same procedure to prevent any obstetrical complication and out of these uterine rupture is the most threatened one. There are number of factors that are seen at both maternal and fetal end which can lead to this procedure especially in the emergency C section and include abnormal position, premature rupture of the membrane, delayed labor, fetal hypoxia etc.4-7

No surgical intervention is devoid of any complications; so is seen with C sections and there are also various underlying factors that predispose to certain degree of risk for development of these untoward side effects. In these circumstances, poor socio-economic status, low educational profile, primi gravida, lack of ante and pre natal visits, maternal age and the co-morbid conditions like cardiovascular ones are important causes to lead to development of complications after C section. The data regarding the prevalence of various complications is variable and guide to early anticipation and intervention to avoid morbidity and mortality in such cases 8-11

**METHODS:**

This was a randomized controlled-trial. This was conducted at Sheikh Zayed Hospital, Rahim Yar Khan during 01-09-2018 to 28-02-2019. In the present study the pregnant females irrespective of their duration of gestation, gravida and parity having age equal more than 20 years were included. The cases were subdivided into 2 equal groups by simple purposive sampling. The cases in group A were operative for emergency C section surgery and those, who were in group B underwent elective surgery. These cases were then followed to look for various surgical outcomes i.e. maternal death (it was labelled on the basis of death due to obstetrical cause within 5 days of surgical intervention), post partum haemorrhage (PPH),which was labelled on the basis of blood loss more than 1 litre assessed on the basis of drain and soaked gauze, hysterectomy (due to uncontrolled blood loss) and surgical site infection (SSI), denoted on the basis of wound site serous or purulent discharge along with fever and raised white blood cell count.

The data was analysing by SPSS version 23.0. Mean and standard deviation was calculated for continuous data and frequency and percentages were labelled on the basis of nominal data.

**Results:**

In this study total 150 cases of C section were included with 75 in each group. The mean age of the group A and B was 28.87±4.43 vs 29.54±5.13 years and mean duration of gestation at presentation was 37.13±2.56 vs38.67±1.39 weeks as shown in table 1. SSI was seen in 3 (5.33%) cases in emergency group vs 2 (2.66%) in elective group with p= 0.07. PPH was observed in 2 (2.66%) of the cases each with p= 1.0 and both hysterectomy and maternal mortality was observed in 1 (1.33%) cases each in emergency group with p= 0.81 each as in table 2.

Table 1. Study variables (n= 75 each)

|  |  |  |
| --- | --- | --- |
| Variables  | Group A | Group B |
| Age  | 28.87±4.43 | 29.54±5.13 |
| Weight | 57.12±2.4i9 | 58.67±2.69 |
| Gravida  | 3.87±1.47 | 3.54±1.32 |
| Parity  | 2.63±1.03 | 2.59±1.07 |
| Duration of gestation | 37.13±2.56 | 38.67±1.39 |

Table 2. Outcomes vs Group of treatment (n= 75 each)

|  |  |  |  |
| --- | --- | --- | --- |
| Variables | Group A | Group B | p value |
| SSI | 3 (5.33%) | 2 (2.66%) | 0.07 |
| Post partum haemorrhage | 2 (2.66%) | 2 (2.66%) | 1.0 |
| Hysterectomy | 1 (1.33%) | 0 (0%) | 0.81 |
| Maternal mortality | 1 (1.33%) | 0 (0%) | 0.81 |

**Discussion:**

C-section is one of the high burden and most commonly performed procedure in the obstetrical and gynecological Units and is a concern especially in the developed countries due to medico legal issues of unnecessary surgeries. But on the other hand elective option is also not uncommon and this trend is also seen in the developing countries as well; though data is lacking to portray the exact number. Emergency surgery is usually preceded by any maternal of fetal related complication; however, elective one can be conducted on patients demand. 12-14

In this study various surgical outcomes were observed and it was noted that surgical site infection (SSI) was seen in 3 (5.33%) cases in emergency group vs 2 (2.66%) in elective group with p= 0.07. PPH was observed in 2 (2.66%) of the cases each with p= 1.0 and both hysterectomy and maternal mortality was observed in 1 (1.33%) cases each in emergency group with p= 0.81 each. These results were comparable to the studies done in the past where almost similar percentages of the complications were seen with slight difference; though they were also common in emergency surgery group.15-17

Gayathry et al carried out a similar randomized trial and they found that the number of cases with PPH were seen as 3.4% vs 1.1%, in emergency vs elective procedure and hysterectomy was observed in 1.3% vs 0%, while wound infection as documented as SSI in the present study was seen in 2.7% emergency as compared to 1.1% elective procedure. They did not observe maternal death in any of the groups while we had a single cases in emergency LSCS.18

Amit A et al also compared these two modalities and they found infection in 2.5% vs 3%, and maternal death in 0.2% vs 0.3% in emergency vs elective surgeries with no significant difference with p= > 0.05.19

There were number of studies in this context and out of these a study done by Lulu et al that found a very higher number of cases suffering from surgical wound infection in both groups; still the number was high in emergency C section group where this was observed in 22.9% subjects in contrast to 6.5% only in elective group with p < 0.05.20

**Conclusion:**

Complications are relatively higher in emergency as compared to elective C section and SSI is nearly significantly high in this group.

**ETHICAL APPROVAL**

The study was approved by the Ethical Review Committee of Sheikh Zayed Medical College/Hospital, Rahim Yar Khan, Pakistan.

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**Authors’ Contribution:**

**TM:** Collection of patient’s data

**SZ:** Supervision of research

**SZ:** Data collection, manuscript writing