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RESEARCH ARTICLE

# Characteristics And Outcomes Of Cesarean Section Patients At Ibnu Sina Simpang Empat Hospital

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## *Abstract*

***Introduction:*** *This study aims to determine the characteristics and outcomes of caesarean section patients. Childbirth with the SC method is carried out on the basis of medical indications from both the mother and fetus, such as placenta previa, abnormal presentation or location of the fetus, and other indications that can endanger the life of the mother and fetus.*

***Method:*** *descriptive observational research with a cross-sectional research design that describes the phenomenon of the variables studied objectively based on time samples, behavioral samples, and incident samples at a certain time through medical records of post-cesarean section patients.*

***Result:*** *The maternal age is mostly low risk (80%), multiparous (68%), length of stay 2±0.5. The most common indications for CS are a history of previous CS (31.14%), PROM (17.89%), CPD (8.61%) and oligohydramnios (5.44%)*

***Conclusion:*** *The incidence of cesarean section delivery at RSI Ibnu Sina Simpang Empat from January 2024 to June 2024 increased in the productive age group and most in multiparas. The average length of stay after cesarean section was in accordance with the ACOG standard, which was less than 48 hours. The importance of post-cesarean section assessment and monitoring to optimize maternal and infant health.*

***Keywords:*** *cesarean section, characteristic, outcome*

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## INTRODUCTION

Childbirth is a very important natural process for a mother where the production of the results of conception (fetus and placenta) is full-term (37-42 weeks). There are two methods of delivery, namely vaginal delivery known as natural delivery and Caesarean delivery or Sectio Caesarea (SC) delivery.[1] Sectio caesarea (SC) delivery is a surgical process to deliver a fetus through incisions in the abdominal wall and uterine wall. Childbirth with the SC method is carried out on the basis of medical indications from both the mother and fetus, such as placenta previa, abnormal presentation or location of the fetus, and other indications that can endanger the life of the mother and fetus.[1]

The birth rate of cesarean sections increased from 5% in 1970 to 31.9% in 2016.[2] This sharp increase can be attributed to a variety of factors, including changes in maternal age, medical advances that allow more complicated pregnancies to resume, and evolving midwifery practices.[3,4]

According to the World Health Organization (WHO), stated that the surgical action of Sectio Caesarea (SC) is around 5-15%. WHO data in the 2021 Global Survey on Maternal and Perinatal Health shows that 46.1% of all births are carried out through SC.[5,6] Based on RISKESDAS data in 2021, the number of deliveries using the SC method in Indonesia is 17.6%. The indication of SC delivery was caused by several complications with a percentage of 23.2% with transverse/breech fetal position (3.1%), bleeding (2.4%), eclampsia (0.2%), premature rupture of membranes (5.6%), long partus (4.3%), umbilical cord circumference (2.9%), placenta previa (0.7%), placenta lag (0.8%), hypertension (2.7%), and others (4.6%).[7]

## METHODS

The type of research conducted is observational descriptive research with a cross-sectional research design that describes the phenomenon of variables that are studied objectively based on time samples, behavioral samples, and event samples at a certain time through the medical records of post-cesarean section patients from January 2024 to June 2024 at Ibnu Sina Simpang Empat Hospital.

## RESULT

This research was conducted at the Medical Record Installation of RSI Ibnu Sina Simpang Empat. Data collection was obtained secondarily, namely from the patient's medical records after cesarean delivery. Based on research that has been conducted on 883 people, the sample is obtained as follows.

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**Table 1.** Characteristics of Cesarean Section Patients at Ibnu Sina Simpang Empat Hospital for the Period of January 2024-June 2024

| Variable | N (883) | % |
|---|---|---|
| **Age** | | |
| Risky (<20 or >35) | 178 | 20% |
| Low Risk (20-35) | 705 | 80% |
| **Parity** | | |
| Primipara | 279 | 32% |
| Multipara | 604 | 68% |
| **Gestasional Age** | | |
| Preterm | 102 | 11.55% |
| Aterm | 756 | 85.62% |
| Posterm | 25 | 2.83% |
| Length of Treatment | 2±0.5 | |
| **Indication** | | |
| History of Previous Cesarean Section | 275 | 31.14% |
| Premature rupture of membranes (KPD) | 158 | 17.89% |
| *Cephalopelvic Disproportion* (CPD) | 76 | 8.61% |
| Oligohidramnion | 48 | 5.44% |
| Gestational hypertension | 28 | 3.17% |
| Severe Preeclampsia | 27 | 3.06% |
| Plasenta Previa | 13 | 1.47% |
| Partus Prematorus Imminens | 23 | 2.60% |
| IUFD | 10 | 1.13% |
| Fetal Distress | 6 | 0.68% |
| Gemeli | 12 | 1.36% |
| Cord Wrap | 4 | 0.45% |
| Macrosomy | 5 | 0.57% |
| Phase II Elongated | 8 | 0.91% |
| Location of Oblig | 45 | 5.10% |
| Latitude Location | 68 | 7.70% |
| Sunsang Location | 58 | 6.57% |
| Hyperthyroidism | 3 | 0.34% |
| HbsAG Positive | 16 | 1.81% |
| **Return Status** | | |
| Healthy | 883 | 100% |
| Refer | 0 | 0% |
| Die | 0 | 0% |

## DISCUSSION

Based on the results of the study, it was found that the most cases of cesarean section were in the low-risk age group, which was 80%. The incidence of cesarean section can increase due to poor endometrial conditions, one of which is the mother's age of more than 35 years due to the progressive deterioration of the endometrium due to sclerosis of the blood vessels in the myometrium so that blood flow to the endometrium is uneven and can cause the occurrence of

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Hemoragic Ante Partum (HAP).[8] However, in this study, mothers with a lower risk age were more numerous, which was 80%, which indicates that mothers who give birth with cesarean section at RSI Ibnu Sina Simpang Empat are mostly pregnant at childbearing age.

The results of the study obtained data that the incidence of cesarean section at RSI Ibnu Sina Simpang Empat based on parity was the most common in the multipara category, which was as much as 68%. Multipara parity has a higher risk of maternal mortality. This is influenced by a decrease in the function of the reproductive organs. In general, multigravida parity is the safest parity for a mother to give birth and is still classified as a low-risk pregnancy. However, there are still risk factors that cause the possible risk or danger of complications in childbirth that can cause death or pain in the mother and baby. For example, in multipara mothers who have had a failed pregnancy, have given birth by vacuum, blood transfusion, or placental retention in previous deliveries.[9.10]

First birth usually has a relatively high risk to the mother and child, but this risk decreases in the second to fourth parity, and increases again in the fifth parity and so on. Mothers with primipara parity and grandemultipara will usually experience complications during labor such as placenta previa, placental aorthomia, and even bleeding due to uterine tears or other causes that have not been studied.[11]

The gestational age characteristics that most often undergo childbirth through cesarean section in this study are in the group of mothers with an aterm gestational age of 85.62% followed by a preterm gestational age of 11.55%. Premature birth (gestational age < 37 weeks) increases the risk of cesarean section.[12] These findings imply that pregnant women who feel signs of labor such as uterine contractions, bloody mucus discharge or ruptured membranes before 37 weeks of gestation, are predicted to have an increased risk of cesarean section.[12] Posterior pregnancies are also more at risk of having a cesarean delivery than normal gestational age (38-42 weeks). This is in accordance with research conducted by Labib et.al which found that the incidence of childbirth through cesarean section increases at more than 40 weeks of gestation and will increase again at 42 weeks of gestation.[13]

In this study, the average length of treatment in post sc patients was 2 days (2±0.5 Standard Deviation). Women who give birth by caesarean section, regardless of demographic and obstetric characteristics, have a higher risk of maternal morbidity compared to mothers with vaginal delivery, and this can increase the duration of hospitalization.[14] WHO recommends that all women who give birth through maternal delivery should remain admitted to a hospital or health facility for at least 24 hours postpartum for observation.[15] *The American College of Obstetricians and Gynecologists* (ACOG) also recommends that uncomplicated healthy women can be discharged from the hospital between 24 and 48 hours after giving birth if they and their babies meet certain criteria. These criteria can include stable vital signs, adequate pain control, the ability to eat and drink, feeding the baby without complications, and the absence of maternal or newborn complications.[16]

The most indications for cesarean section in patients are a history of previous cesarean section (31.14%), followed by premature rupture of membranes (17.89%), CPD (8.61%) and latitude

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(7.7%). These findings are in line with previous studies that found that a history of cesarean section in previous births increases the risk of cesarean section in subsequent pregnancies.[17] This value may also be increased in childbirth with a history of previous cesarean section with a gestation interval of less than 19 months.[18] Although a history of prior cesarean section is not an absolute indication for a cesarean section in subsequent pregnancies, vaginal delivery after a cesarean section (VBAC) can cause many side effects including uterine rupture, fetal death, or fetal brain damage due to hypoxia.[12]

A history of childbirth with the occurrence of a normal cesarean section will cause uterine scarring to form. The cesarean section scar will undergo changes during the next pregnancy process where the scar will thin the surrounding area followed by the widening of the scar due to stretching. This makes the area of the Lower Uterine Segment (SBR) in pregnancy with a history of cesarean section will be thinner. These changes are the basis for how complications such as uterine rupture, placenta previa, placenta accreta and placental abruptio occur. However, this does not eliminate the possibility of vaginal delivery in mothers with a history of cesarean section.[19]

The results of this study reported that the rate of cesarean section in KPD patients was 17.89%, which is similar to the percentage found in other studies. In a study with 536 cases, in Iran, Eslamian, et al (2002), reported a study of cesarean section in cases with KPD was 28.08%.[20] Chakraborty et al (2013) reported a Cesarean section rate of 26.6% among pregnancies with prenatal rupture of membranes in a study conducted in West Bengal.21 Kunze et al (2011) who conducted a study on 1026 cases of PROM in their research on intrapartum management of premature rupture of membranes reported a cesarean section rate of 27%. Premature amniotic membrane can cause oligohydramnions that trigger pressure on the umbilical cord so that fetal hypoxia can occur. The more amniotic fluid that comes out, the higher the risk of fetal emergency and asphyxia.[22]

## CONCLUSION

The incidence of cesarean delivery at Ibnu Sina Simpang Empat Hospital for the period January 2024-June 2024 increased in the productive age group and most in multipara. Based on gestational age, cesarean delivery is most common in aterm gestation, followed by preterm gestational age. The average length of post-cesarean treatment is in accordance with ACOG standards, which is less than 48 hours. The most common indications of cesarean section are a history of previous cesarean section and premature rupture of the membranes. The importance of postoperative assessment and monitoring of cesarean section to optimize maternal and infant health.

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