

RESEARCH ARTICLE

Caesarian Section Patient Profile with Absolute Indication in Dr. M. Djamil General Hospital Padang in 2018-2020

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Abstract

Backgrounds : Caesarean section delivery must be performed when there are medical indications and normal labor is no longer possible, prioritizing the health of both mother and baby.

Purpose : To determine the profile of caesarean section patients with absolute indications at Dr. RSUP M. Djamil Padang from 2018 to 2020.

Methods : This research falls within the scope of obstetrics and gynaecology. The study was conducted from March to March 2022. The research type is descriptive categorical. The accessible population in the study consisted of 56 caesarean section patients with absolute indications at Dr. RSUP M. Djamil Padang from 2018 to 2020, selected using total sampling techniques. Univariate data analysis is presented in the form of frequency distribution, and data processing was performed using IBM SPSS version 25.0.

Results : The highest proportion of mothers were aged 20-35 years, accounting for 38 people (67.9%). The most common maternal parity was multipara, also 38 people (67.9%). The highest level of education was high school, with 31 people (55.4%). The majority of patients, 33 people (58.9%), had a previous history of caesarean section. The most common absolute medical indication was placenta previa, affecting 24 people (42.9%).

Conclusion : The majority of mothers were aged 20-35 years, multiparous, and had a high school education. Most patients had a previous history of caesarean section, and the most common absolute medical indication was placenta previa.

Keywords: age; parity; education; previous caesarean section; medical indications; caesarean section.



INTRODUCTION

Caesarean section delivery must be performed when there are medical indications and normal delivery is no longer possible, with the aim of prioritizing the safety of both mother and baby.¹ A caesarean section is the process of delivering a fetus from the mother's abdomen through an abdominal incision (laparotomy) and a uterine incision (hysterotomy).² It is an artificial labor method in which the fetus is born through an incision in the abdominal wall and uterus, typically performed when the fetus is intact and the gestational age is more than 28 weeks or the fetal body weight is more than 1000 grams.³

The World Health Organization (WHO) has set a standard caesarean section rate of 5-15% per 1000 births worldwide.⁴ Based on a review of WHO results implemented in nine Asian countries in 2007 and 2008, including China, the Philippines, Vietnam, Thailand, Cambodia, Nepal, and Sri Lanka, the percentage of deliveries by caesarean section was found to be over 27.3%.⁵ Research conducted by Bensons and Pernolis states that the total maternal mortality rate for caesarean sections is 40-80 per 100,000 births, making the risk 25 times higher compared to normal labor.⁶

According to the 2018 Basic Health Research (RISKESDAS) results, caesarean deliveries accounted for 17.6% of births in Indonesia, with the highest rate in the DKI Jakarta area (31%) and the lowest in the Papua region (6.7%).⁷ The planned increase in caesarean sections in Indonesia was set at 7%. From 2012 to 2017, the rate of caesarean sections in Indonesia increased from 12.3% to 17.0%.⁸ In West Sumatra, the incidence of caesarean sections in 2010 was 3,041 out of 170,000 deliveries, or about 20% of all deliveries, increasing to 25.6% in 2011 and 28.9% in 2012.⁹ The incidence of caesarean sections in Indonesia has already exceeded the standard set by WHO at 29.6%.¹⁰

Caesarean sections may be performed due to medical and non-medical indications. Medical indications include preeclampsia, eclampsia, narrow pelvis, placenta previa, prolonged labor, placental abruption, twin pregnancy, fetal distress, and previous caesarean section. Non-medical indications include age, socioeconomic status, education, and social culture.¹¹ Some indications for caesarean section delivery include premature rupture of membranes (13.4%), preeclampsia (5.49%), bleeding (5.14%), fetal malpresentation (4.40%), obstructed labor (4.25%), and uterine rupture (2.3%).¹²

METHODS

The study focuses on the scope of obstetrics and gynaecology services in Padang. This research will be conducted in the Medical Records department of Dr. M. Djamil Hospital, Padang, from March 2021 to March 2022. The study is a categorical descriptive research with a cross-sectional design, using secondary data from the medical records of caesarean section patients at RSUP Dr. M. Djamil Padang from 2018 to 2020.

The target population for this study is caesarean section patients at RSUP Dr. M. Djamil Padang. The sample includes all patients who underwent caesarean section delivery with

complete medical records, based on maternal age, mother's education level, and previous caesarean section history at RSUP Dr. M. Djamil Padang from 2018 to 2020. The sampling method used is Total Sampling, including all patients who underwent caesarean section delivery with complete medical records during the specified period.

Data for this study will be collected from medical records and patient registrations of those who underwent caesarean section at RSUP Dr. M. Djamil Padang from 2018 to 2020. The tools used for data collection include writing instruments and a laptop for recording medical record data of caesarean section patients.

The data used in this study is secondary data obtained from the medical records of caesarean section patients at RSUP Dr. M. Djamil Padang from 2018 to 2020. The analysis will be conducted descriptively.

RESULT

A. Frequency Distribution of Caesarean Section Patient Based on Maternal Age

TABLE 1. Frequency Distribution of Cesarean Section Patients Based on Maternal Age with Absolute Indication at RSUP Dr. M. Djamil Padang, 2018-2020

Age Mother	<i>f</i>	%
20-35	38	67,9
<20 dan >35	18	32,1
Total	56	100,0

Results from Table 1 show that out of 56 cesarean section patients with absolute indications at RSUP Dr. M. Djamil Padang, the most common maternal age group was 20-35 years (considered low-risk), accounting for 38 people (67.9%)

B. Frequency Distribution of Cesarean Section Patients by Maternal Parity

TABLE 2. Frequency Distribution of Cesarean Section Patients by Maternal Parity with Absolute Indications at RSUP Dr. M. Djamil Padang, 2018-2020

Parity	<i>f</i>	%
Primipara	18	32,1
Multipara	38	67,9
Total	56	100,0

This table shows that the majority of cesarean section patients with absolute indications were multiparous women, while primiparous women accounted for about one-third of the cases.

C. Frequency Distribution of Cesarean Section Patients Based on Education Level

TABLE 3. Frequency Distribution of Cesarean Section Patients Based on Education Level with Absolute Indications at RSUP Dr. M. Djamil Padang, 2018-2020.

Education Level	<i>f</i>	%
Elementary School	6	10,7
Junior High School	6	10,7
Senior High School	31	55,4
Higher Education	13	23,2
Total	56	100,0

This table illustrates the distribution of education levels among cesarean section patients with absolute indications, with the majority having completed senior high school education.

D. Frequency Distribution of Cesarean Section Patients Based on Previous CS History

Results from Table 4 show that among 56 cesarean section patients with absolute indications at RSUP Dr. M. Djamil Padang, the majority had a history of previous cesarean section, accounting for 33 people (58.9%)

TABLE 4. Frequency Distribution of Cesarean Section Patients Based on Previous CS History with Absolute Indications at RSUP Dr. M. Djamil Padang, 2018-2020

Previous CS	<i>f</i>	%
With Previous CS	33	58,9
Without Previous CS	23	41,1
Total	56	100,0

This table illustrates that more than half of the patients undergoing cesarean section with absolute indications had a history of previous cesarean section, while the remaining patients did not have such history.

E. Frequency Distribution of Cesarean Section Patients Based on Absolute Medical Indications

The results from Table 5 show that among 56 cesarean section patients with absolute indications at RSUP Dr. M. Djamil Padang, the most common absolute medical indication was placenta previa, accounting for 24 people (42.9%).

TABLE 5. Frequency Distribution of Cesarean Section Patients Based on Absolute Medical Indications at RSUP Dr. M. Djamil Padang, 2018-2020

Absolute Medical Indication	<i>f</i>	%
Transverse Lie	18	32,1
Placenta Previa	24	42,9
Preeclampsia	14	25,0
Total	56	100,0

This table illustrates the distribution of absolute medical indications for cesarean section, with placenta previa being the most common indication, followed by transverse lie and preeclampsia.

DISCUSSION

- A. Distribution frequency of caesarean section patients based on maternal age with absolute indication at RSUP Dr. M Djamil Padang from 2018-2020.

The research results at RSUP Dr. M Djamil Padang show that the most common maternal age for caesarean section delivery with absolute indication is 20-35 years (not at risk), accounting for 67.9%. This research aligns with Prihartini's 2019 study, which found that 61% of caesarean sections were performed on mothers in the non-risky age group, and Sustenance's 2018 study, which reported 82.30% of caesarean sections in the non-risky age group.^{13,14}

The 20-35 year age group is considered safe for normal labor. However, mothers in this age range may undergo caesarean sections due to other factors such as maternal health conditions, bleeding during pregnancy, physical or mental stress that can lead to premature delivery, and labor complications. Complications that may arise during pregnancy can also affect the course of labor, making caesarean section the best method for delivering the fetus. These complications include cephalopelvic disproportion, failure to progress in labor, pre-eclampsia, premature rupture of membranes, fetal distress, malpresentation, and multiple pregnancies.^{15,16}

- B. Distribution frequency of caesarean section patients based on maternal parity with absolute indication at RSUP Dr. M Djamil Padang from 2018-2020.

The research results at RSUP Dr. M Djamil Padang indicate that the most common parity for caesarean delivery with absolute indication is multipara, accounting for 67.9%. This study aligns with Sustenance's 2018 study, which found that the majority of respondents (64.62%) were multiparous, and Rucmayanti's 2016 study, which reported 64% of respondents with multiparity.^{14,17}

Multipara refers to a woman who has given birth more than once. While parity 2-3 is considered safe from the perspective of postpartum hemorrhage, both first-time mothers and those with high parity (more than three) have a higher incidence of postpartum bleeding. In multiparous women, the reproductive muscle function may decline, with the uterine muscles becoming overstretched and unable to contract effectively. This can result in fetal deformities and abnormal placental implantation, leading to complications that may indicate the need for a caesarean section.¹⁴

- C. Distribution frequency of caesarean section patients based on maternal education level with absolute indication at RSUP Dr. M Djamil Padang from 2018-2020.

The study results at RSUP Dr. M Djamil Padang show that the most common education level among women undergoing caesarean section delivery with absolute indications is high school (SMA), accounting for 55.4%. This result is consistent with Solomon's 2018 research, which found that 53% of caesarean section deliveries were among high school-educated respondents, and Pohan's 2020 study, which reported 47.5% of respondents had a high school education.^{20,21}

Education levels are typically divided into two categories: basic education (elementary and junior high school) and higher education (high school, academy, and college). A higher level of education suggests that women have a better understanding of the risks they face during pregnancy and childbirth. This influences their choice of more rational responses, as it is known that there is an improvement in levels and greater effort to achieve higher standards to avoid maternal mortality.²³

Mothers with higher education levels tend to pay more attention to their health during pregnancy compared to those with lower education levels. The higher the formal education of a mother, the more likely it is that her knowledge and awareness will increase in anticipating difficulties during pregnancy and childbirth, leading to a greater motivation to undergo regular and periodic prenatal care.²⁴

- D. Distribution frequency of caesarean section patients based on previous caesarean section history with absolute indication at RSUP Dr. M Djamil Padang from 2018-2020.

The study results at RSUP Dr. M Djamil Padang reveal that the most common history among women undergoing caesarean section with absolute indication is a previous caesarean section, accounting for 58.9%. This result is consistent with Tahmina's 2017 study, which found that the most common indication (24%) was a history of previous caesarean section. It also aligns with Evita Sartika's 2015 research, which reported that the largest proportion of medical indications for caesarean section based on maternal factors was a history of previous caesarean section, accounting for 29 people (53.7%).^{25,26}

High-risk delivery history includes previous caesarean section, vacuum extraction, forceps delivery, premature birth / low birth weight, prolonged labor, premature rupture of membranes, and stillbirth.²⁷ A history of caesarean section increases the risk of subsequent caesarean deliveries by 6 times. Women who have previously undergone a caesarean section tend to require the same procedure in subsequent pregnancies due to the risk of uterine rupture.¹³

- E. Distribution frequency of caesarean section patients based on absolute medical indications (placenta previa, preeclampsia/eclampsia, transverse lie) at RSUP Dr. M Djamil Padang from 2018-2020.

The study results at RSUP Dr. M Djamil Padang show that the most common absolute medical indication for caesarean section is placenta previa, accounting for 42.9%. This finding is consistent with Ruchmayanti's 2016 study, which reported that the most common absolute medical indications for caesarean section were placenta previa and transverse lie (18%) and preeclampsia (16%). It also aligns with Febriani Ade's research, which found that the majority of high-risk caesarean section deliveries were due to placenta previa, affecting 115 people (30.8%).^{17,28}

The incidence of placenta previa is significantly associated with uterine and endometrial injuries such as curettage, previous placenta previa, and previous caesarean section scars. Zygote implantation requires an environment rich in oxygen

and collagen. The outermost part of the zygote is a blastocyst formed from trophoblast cells that develop into the placenta. In normal pregnancies, the trophoblast attaches to the decidua basalis in the endometrium. However, in a scarred uterus, the wounded area contains conditions rich in oxygen and collagen, making it easy for the trophoblast to attach. The part of the uterus most frequently affected by scarring is close to the cervix. As the baby grows, the placenta also grows, with trophoblast cells developing towards the fundus. The placenta then migrates, and the old placental tissue either atrophies completely or leaves remnant blood vessels, often called vasa previa.²⁹

CONCLUSION

Based on the profile of caesarean section patients with absolute indications at RSUP Dr. M. Djamil Padang from 2018 to 2020, with a sample size of 56 people, several key risk factors were identified. The majority of mothers (67.9%) were aged 20-35 years, which is considered a non-risky age group. Most of the mothers (67.9%) were multiparous. The highest level of education among the mothers was high school (SMA), accounting for 55.4%. A significant proportion of the mothers (58.9%) had a history of previous caesarean sections. The most common absolute medical indication for caesarean section was placenta previa, affecting 42.9% of the patients. These findings provide valuable insights into the demographic and medical characteristics of caesarean section patients at this hospital, which can inform healthcare planning and resource allocation.

SUGESSTION

Based on the findings of this study, several recommendations can be made. For RSUP Dr. M. Djamil Padang, it is suggested that the results of this study be used to develop educational materials and improve data collection regarding caesarean section deliveries. This would enable the hospital to better understand the percentage of caesarean sections performed with absolute indications. For the general public, particularly families, it is recommended that efforts be made to increase awareness and knowledge about caesarean section deliveries and their associated risk factors, in order to prevent potentially fatal complications. Finally, for future researchers, it is suggested that this study be used as a reference for similar research. Additionally, future studies could benefit from increasing the sample size, conducting more in-depth analyses of absolute medical indications using analytical methods, and exploring different locations to provide more diverse research results. These recommendations aim to improve healthcare practices, public awareness, and the depth of scientific understanding regarding caesarean section deliveries.

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