



HIGH RISK PREGNANCY IN WOMEN WITH PREVIOUS C-SECTION AND SHORT INTERVAL PREGNANCY : CASE REPORT

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Abstract

Background: The main risk in pregnancies occur at 4T (too many, too young, too old, and too close birth spacing). The distance between the previous delivery and the next pregnancy and the previous method of delivery are two of the many other factors that affect the condition of the mother and the fetus that will be born later. **Aim:** This case report aims to analyze the effect of spacing between the last child and history of previous births on the outcome of the mother and her baby. **Method:** This report describes data on pregnant women participating in the Continuity of Care (CoC) program. **Result:** The results show that the outcomes obtained by the mother in this second delivery are within normal limits. **Conclusion:** However, this does not mean the possibility for pregnancies that are not planned properly to cause events that are detrimental to the mother and fetus are none.

keyword : High Risk Pregnancy; Previous C-Section, Short Interval Pregnancy

INTRODUCTION

The high number of maternal deaths in some areas of the world reflects inequalities in access to quality health services and highlights the gap between rich and poor. The MMR in low-income countries in 2020 was 430 per 100 000 live births (WHO, 2023). The Maternal Mortality Rate (MMR) in Indonesia has decreased from 305 deaths per 100,000 live births in 2015 (SUPAS 2015) to 189 deaths per 100,000 live births in 2020 (Badan Pusat Statistik, 2020), although this condition is still far from the RPJMN target, namely 183 per 100,000 live births in 2024, as well as from the SDGs target, namely 70 per 100,000 live births in 2030. The direct causes of maternal death are hypertensive disorders in pregnancy (31.90%), obstetric bleeding (26.90%), non-obstetric complications (18.5%), other obstetric complications (11.80%), infections related to pregnancy (4.20%), abortion (5%) and other causes (1.70%) (Sample Registration System 2018). This cause of





maternal death indicates that maternal death can be prevented if the coverage of services is accompanied by good quality of service (Ministry of Health RI, 2021). The main risk in pregnancies occur at 4T (too many, too young, too old, and too close to birth spacing) (Puti Sari H., 2018). Classification of 4T is too many children, namely the number of living children is more than 3 or 4, the age at first pregnancy is too young, namely under 20 years old, the age at first pregnancy is too old, namely above 35 years, and the distance from the birth of the previous child to the next pregnancy is too close, namely under 2 years. This is an emphasis that needs to be understood by health workers and Indonesian women, which has long been proclaimed by the National Population and Family Planning Agency (BKKBN).

A gestational interval (interval between delivery and conception of the next pregnancy) that is shorter than 18 months appears to be associated with an increased risk of adverse outcomes, including preterm birth, small for gestational age (SGA) birth, and infant death. Based on this association, postpartum clinical and public health guidelines recommend an interval between pregnancies of at least 18 to 24 months. Short intervals between pregnancies (<12 months) are associated with increased maternal and fetal and infant risks for women aged 20 to 34 years and for women 35 years or older at birth (Schummers et. al., 2018).

The inter-pregnancy interval (IPI), known as the period between delivering one birth and the conception of the next pregnancy can influence pregnancy outcomes (Lilungulu et. al., 2015). It is said to be short (short IPI) if it is less than 18 months. If the mother's uterus does not get enough recovery time, complications can occur when the mother experiences the next pregnancy. Onwuka et. al. (2020) cite that things that can happen to mothers with short interpregnancy intervals are premature rupture of membranes, hypertension induced during pregnancy, gestational diabetes mellitus, inadequate fetal weight gain, and many more. In fetus, not only IUGR (Intra Uterine Growth Restriction) can occur, premature, stillbirth, low birth weight (LBW), and others are also able to occur.

Specifically, a study by Lilungulu and colleagues in Tanzania in 2015 observed that pregnant women with a short IPI were at increased risk of anemia, preeclampsia, PROM, preterm delivery, failed vaginal delivery after cesarean

section (VBAC), and postpartum haemorrhage. while their neonates are at higher risk for prematurity, birth asphyxia, and LBW.

Pregnancy intentions, socio-economic and obstetric risk factors, and the distance between pregnancies can influence the future of the mother and baby. Addressing the consequences of short interpregnancy intervals on potentially adverse obstetric outcomes and preparing husbands and wives regarding pregnancy and socio-economic preparation is critical. Health workers need to inform evidence-based public health policies and clinical recommendations for family planning (Liau et. al., 2019).

Continuity of Care (CoC) or continuous care is one of the efforts of health workers to help improve health status, especially for mothers and babies. CoC should be started when the mother enters the pre-conception period, then continues when the mother has experienced conception, so that pregnancy, childbirth, and the puerperium can be experienced safely. Not only physical and physiological changes, it is necessary for healthcare provider to support mothers from a psychological perspective, especially in preparing themselves at every stage of the changes that will occur in her body, as well as changing the duties of a wife to become a mother and preparing herself to become the main pillar of her child's growth and the development. Rifdiani (2016) said that some of the efforts to reduce the risk of pregnancy with 4T that are possible to be done by midwives are through promotive and preventive approaches. This case report aims to analyze the effect of spacing between the last child to the next pregnancy and history of previous births on the outcome of the mother and her baby.

CASE REPORT

A female patient, Mrs. SS, 20 years old, Javanese, came to the village health worker's house to be provided Continuity of Care (CoC) assistance. She had her first contact with health workers when she was going to check her pregnancy at the Balongsari Health Center, with complaints of abdominal pain and nausea. Mrs. SS then underwent a physical examination and Plano test to confirm her pregnancy. PP test results positive (+), first day of last menstruation January 3, 2022, gestational age 6/7 weeks. Midwives provide multivitamin therapy for pregnant women to overcome nausea. In addition, health education was also given regarding balanced



nutrition, activity and rest patterns, and was scheduled to check again within a month.

Mrs. SS routinely carry out pregnancy checks (ANC), which was done at the Balongsari Health Center once at the first trimester, twice at the second semester, then the mother is referred to Darus Syifa Benowo Hospital based on the KSPR score with complications at Previous Caesarean Section and Short Interval between Pregnancies. The mother then routinely conducted pregnancy checks at the hospital three times at the third trimester.

Assistance were carried out starting on March 28 2022, the first contact with a CoC companion on April 5 2022. The mother said this was her second pregnancy, where the first pregnancy occurred in 2020. The mother experienced her first delivery in 2021 with the Sectio Caesarea (SC) method for indications of young age, with her first born now a year old.

The health history of the mother, husband and family of the mother and husband does not have any infectious, hereditary or chronic diseases. Regarding her habits, the mother does not smoke, does not consume alcoholic beverages, and does not consume illegal drugs. Mrs. SS never drank herbal medicine during pregnancy, and she never underwent any massages during the pregnancy. She had never used contraception, and after giving birth to her first child she decided not to use contraception.

The daily functional pattern of the mother is that the mother eats three meals a day in moderate portions, the mother is not picky about food, likes vegetables, fruit, and the mother also regularly drinks water every day with a minimum amount of 10 glasses per day. Mother routinely urinates 8 times a day, defecates once a day. Mother's daily activities are doing household chores and taking care of children with the help of her biological mother and husband when he came home from work. She and her husband live in the home of her parents.

On physical examination, the results were within normal limits, BP 110/70 mmHg, HR 88x/minute, RR 20x/minute, and temperature 36.7°C. Anthropometric examination of the mother, namely BW 53 kg, BH 158 cm, arm circumference 25 cm, with the mother's BMI result of 21.23 (normal). On physical examination, the results were found to be within normal limits, there were no abnormalities in the

mother's physique. On Leopold's examination, it was found that the fundal height was still palpable ballottement. At the mother's examination as of April 5 2022, the diagnosis was obtained, namely G2P1, 12/13 weeks' gestation.

She did her laboratory test on April 25 2022, with a diagnosis of G2P1 17/18 weeks gestation at the Balongsari Health Center. The mother's laboratory results were within normal limits, with a haemoglobin level of 11.7 gr/dL, blood type B (+), and the mother's triple elimination test results were negative. At the examination of the mother at 20/21 weeks of gestation, the mother was referred to Darus Syifa Benowo Hospital with an indication of an KSPR score of 18 (Initial score + History of first child birth by SC + Child spacing <2 years). After that, the mother did an ultrasound examination (USG) on August 5, 2022 (gestational age 30 weeks) and found the mother's elective SC date, which was September 25, 2022. elective SC date, which is on September 23, 2022.

The mother gave birth on September 23 2022 with a baby girl, birth weight 2900 grams, body length 47 cm. The condition of the mother and baby is healthy, after being treated for 2 days in the hospital and no complications were found, the mother and baby were allowed to go home.

DISCUSSION

Research using secondary data in Bojonegoro Regency of Indonesia done by Wahyuni & Puspitasari (2021) obtained data that mothers with 4T who were too young (<20 years) were not found to have a chance of causing maternal death. However, this does not mean that very young mothers are definitely safe to get pregnant and give birth. Women who are too young (less than 20 years old) can be said to be physically unprepared to become pregnant or to undergo the reproductive process.

The mother in this case experienced her first pregnancy at the age of 18, where she entered the 4T category at too young of age. Young age can also affect the mother's attitude towards pregnancy, childbirth, and her recovery period and the mother's perception of the events she has gone through. Psychologically, the mother is still not mature enough to accept all of these experiences, so her skills in caring for herself and her baby are doubtful (Tri Wahyuni R. & Puspitasari N., 2021).



In previous deliveries, the mother used the Sectio Caesarea method for indications of this young age. The thing that needs to be considered is the mother's physical readiness to then do the same method in the next delivery. If the mother is pregnant less than 18 months after the birth of her first child, it is feared that the mother's reproductive organs have not fully recovered, which can then increase the risk of subsequent births. Quoting from Onwuka et. al. (2020), women with previous caesarean delivery, intervals of less than 24 months were associated with adverse maternal outcomes including uterine rupture, postpartum haemorrhage, and increased risk of blood transfusion.

Not only physically, a mother's psychology also needs to be an aspect that is monitored by health workers, especially midwives. A mother's unpreparedness for her pregnancy can have a negative impact on herself and her baby. If the mother does not get strength from herself and support from those closest to her, of course, psychologically the mother can experience disturbances. If not handled quickly and appropriately, a mother can experience stress, which can then lead to her inability to take care of herself and her baby (Yunitasari & Suryani, 2020).

This can lead to Postpartum Blues, which is a non-psychotic psychiatric illness. It is one of the most common illness of pregnancy and the perinatal period, including depressive disorders. Some of the symptoms that can refer to Postpartum Blues include sadness, crying, fatigue, irritability, anxiety, lack of sleep, lack of concentration, and unstable mood. These symptoms usually develop within two to three days after delivery, peak in the following few days, and go away on their own within two weeks of their onset (Balaram & Marwaha, 2023).

In this case, the distance between the birth of the first child and the pregnancy of Mrs. SS more or less is only a year. This could be caused by the mother did not use contraception after the birth of her first child. One of the reasons that may cause mothers to not use contraception is the lack of knowledge about postpartum contraception. This second pregnancy was unplanned, but the mother, husband and family had accepted and able to support from a socio-economic point of view. Pregnancy planning and preparedness from a socio-economic perspective can reduce the increase in the incidence of pregnancy with an interval of <2 years (Liau et. al., 2019).

The impact of birth spacing that is not ideal is maternal mortality and affects the baby's nutritional adequacy. Socio-economic, partner's psychology state, age and culture are factors that influence a couple's decision to adjust birth spacing. However, not all couples aged 15-49 years or couples within reproductive age receive information about the long-term benefits of spacing pregnancies, so there are still many couples aged 15-49 years who have children whose birth spacing is too tight and too far apart (Cahyono, 2022).

Adelya (2021) said in her article that mothers with 4T who have children too close or less than 2 years have the risk of dying once compared to mothers with 4T who have children more than 2 years apart. Spacing between one child and another who is less than 2 years can increase the risk of maternal death. Delivery with intervals of less than 24 months (too frequent) is a high risk group for postpartum haemorrhage, maternal morbidity and death. The recommended interval between pregnancies is generally at least two years, to allow a woman's body to recover from the extra demands of pregnancy and lactation.

Short intervals between pregnancies increase the risk of low birth weight, preterm birth, small for gestational age, and low Apgar scores (Gurmu et. al., 2022). The outcome found in this case was a normal baby's birth weight, namely 2900 grams, at 37/38 weeks' gestation. However, that does not mean that pregnancies with an interval of <18 months are not at risk. Therefore, to avoid the occurrence of complications and poor outcomes in newborns, it is necessary to plan the pregnancy carefully so that the mother and baby outcomes are healthier and better. It should be noted that pregnancy and childbirth that occur in a mother with inadequate preparation can affect her recovery period, so the chances are not small for unwanted events will happen to the mother and her baby. The importance of awareness and concern from those closest to the mother, especially her husband and family, can help the mother to foster self-confidence and concern for herself. It is hoped that an increase in positive attitudes for both the mother and the baby will give a good final result as well. Of course, this can also be achieved if health workers, especially midwives, provide integrated counselling, information, and education to mothers, by involving those closest to the mother.



CONCLUSION

It has been reported a case of a mother with previous caesarean section and short interval between pregnancies. The points enforced in this case are two out of four points that cause pregnancy to be high-risk for a woman. The mother has a history of pregnancy and childbirth with an interval of less than 2 years, as well as a history of delivery using the Sectio Caesarea method. The mother in this case report were found with normal outcomes and the baby being healthy. However, this does not mean the possibility for pregnancies that are not planned properly to cause events that are detrimental to the mother and fetus are none. High-risk pregnancies require further and collaborative treatment between health workers, in order to have a safe and healthy pregnancy in the future.

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