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PRENATAL YOGA INTERVENTION IN A VERY HIGH-RISK PREGNANCY WITH CHRONIC HYPERTENSION, A 16-YEAR PREGNANCY INTERVAL, AND AGE 41: A CASE REPORT

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Abstract

***Introduction**: Pregnancy with chronic hypertension is considered a very high-risk pregnancy (VHRP), with a 16-year pregnancy interval and the mother being 41 years old, where VHRP is identified with KSPR ≤14. This condition triggers a high risk of complications that can occur in both the mother and the fetus. **Purpose**: This case study aims to describe a case report of a very high-risk pregnant woman at TPMB "L" Magetan. **Method**: Case report approach with SOAP steps. In pregnant women with KRST, at TPMB "L" Magetan, in one week 2x visits, as the implementer is a student accompanied by a midwife who owns TPMB. **Results**: According to the results of this care, Mrs. E G2P10001, 41 years old, UK 36-37 weeks, maternal condition is good, blood pressure 139/97 mmHg, pulse 86x/min, temperature 36.2°C, Respiration 19x/min with KRST due to chronic hypertension shows controlled blood pressure, no signs of superimposed preeclampsia, compliance with therapy, regular blood pressure measurements, and postpartum birth control. The presence of prenatal yoga intervention shows that the initial systolic blood pressure of 139 mmHg decreased to 137 mmHg, while the diastolic blood pressure decreased from 97 mmHg to 95 mmHg. **Conclusion and Suggestion**: Cases of pregnant women with KRST based on chronic hypertension, pregnancy interval, and maternal age with prenatal yoga intervention are effective in maintaining blood pressure even though yoga is combined with non-complementary therapy. Pregnant women with high-risk factors need to have regular pregnancy check-ups, comply with the given therapy, and adopt a healthy lifestyle. Healthcare workers are expected to continue improving education, monitoring, and support to prevent complications during pregnancy.*

***Keywords**: High-Risk Pregnancy, Hypertension, Prenatal Yoga*

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INTRODUCTION

Pregnancy is a vulnerable phase when it comes to the risk of complications. Very High-Risk Pregnancy (KRST) can potentially cause problems during pregnancy, mainly affecting both the mother and the fetus. This can lead to maternal and infant morbidity and mortality. Several factors that disrupt a mother's health during pregnancy include previously unknown chronic hypertension, long pregnancy intervals, and age above the healthy reproductive range (Sitanggang, 2025).

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In 2023, the WHO reported that around 260,000 maternal deaths occurred during pregnancy and postpartum, some of which were caused by hypertension and bleeding (WHO, 2025). The 2023 MPDN recorded 412 cases of maternal deaths due to hypertension (Indonesia Health Profile, 2024). In East Java in 2022, maternal mortality was 98.40 per 100,000 live births (Usnawati & Hanifah, 2024). In Magetan Regency, in 2024, 60% of maternal deaths were due to hypertension during pregnancy and 30% were due to other causes, including age above healthy reproductive age (Magetan Regency Health Office, 2024).

There are several risk factors that can trigger this condition, including a height <145 cm, age ≤ 20 years or ≥35 years, pregnancy intervals that are too close or too far apart, a history of anemia, bleeding during pregnancy, high blood pressure, abnormal fetal position, and a history of chronic diseases (Rahmawati et al., 2023). Factors that influence chronic hypertension include maternal age, a family history of hypertension, obesity, a history of kidney disease, multiple pregnancies, a high-salt diet, and stress (Putri et al., 2025). High-risk pregnancies can lead to various impacts. For babies, the risks include IUGR, IUFD, low birth weight, prematurity, and congenital abnormalities (Indonesia Health Profile, 2024). According to Shariff & Astuti (2024), chronic hypertension in pregnancy also increases the risk of superimposed preeclampsia, eclampsia, organ damage, HELLP syndrome, pulmonary edema, premature birth, and for the fetus, it can cause IUGR up to fetal death.

Efforts to reduce maternal mortality are carried out through integrated Antenatal Care (ANC) with at least 6 visits, along with referral services. The Magetan Regency Government has also initiated the Magetan Love for Teenagers, Mothers, and Babies Movement (Mayangsari) by supporting high-risk pregnant women from pregnancy through the postpartum period (Magetan Regency Health Office, 2024; Fitriani et al., 2021). As midwives, they perform early detection, monitor blood pressure, and increase education on the importance of regular prenatal check-ups, along with providing appropriate interventions in midwifery care (N. Anita & Diana, 2025). Currently, the complementary therapy being practiced is prenatal yoga, which helps regulate the cardiovascular system and reduce pelvic muscle tension, potentially lowering the risk of preeclampsia (Rachmawati et al., 2025).

Based on these issues, a combination of risk factors in mothers categorized as KRST can be identified through Poedji Rochjati Score Card (KSPR) screening. Therefore, early detection from the beginning of pregnancy, monitoring blood pressure, counseling on warning signs of hypertension that may lead to preeclampsia, as well as interventions like prenatal yoga are needed to help maintain blood pressure stability and prepare for childbirth.

METHOD

This research is a type of qualitative research. This study is a Case Report. The subject of this case report is a pregnant woman with a very high-risk pregnancy, with chronic hypertension, a 16-year gap between pregnancies, and an age above the healthy reproductive age at 41. The research was conducted at TPMB “L” Magetan from January to March 2026. All midwifery care data was systematically documented using the SOAP format (Subjective, Objective, Assessment, and Plan) according to midwifery care documentation standards. Midwifery care was carried out continuously by the practicing midwife, with the involvement of students from the Midwifery D3 Study Program as prospective midwives under the supervision and guidance of the supervising midwife at the practice site.

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RESULT AND DISCUSSION

In this midwifery care case study, the patient named Mrs. E, 41 years old, came with her husband Mr. N, 45 years old. She is currently a 31-32 week pregnant woman and complains that her stomach feels tight, but the tightening is not strong and disappears within a few seconds. She has been experiencing this for the past 3 days. The mother has a history of hypertension for the last 2 years. There is a hereditary disease (hypertension) from her biological mother in the family. The mother, her husband, and their family have never had or currently have other hereditary diseases (asthma and diabetes), infectious diseases (HIV/AIDS, TB, hepatitis), or chronic diseases (heart disease, cancer, stroke). The mother has no history of twins, congenital defects, or mental and emotional disorders.

The mother comes to TPMB once a week to check her blood pressure, with an average reading of 139/90 mmHg to 130/80 mmHg. After giving birth to her first child, she used a 3-month injectable contraceptive for 5 years, then stopped and hasn't used any contraception because she planned to get pregnant. She had no complaints or contraindications while using the 3-month injection. After her second child, she plans to use a permanent contraceptive (MOW), which has been agreed upon with her husband.

Based on objective data, it can be seen that the general condition is good, the patient is conscious and compos mentis, blood pressure is 134/90 mmHg, Pulse: 93 beats/min, Respiration: 20 breaths/min, MAP 104.6 mmHg (Risk of PE), Height: 152 cm, Pre-pregnancy weight: 66 kg, Current weight: 71.2 kg, Weight gain: 5.2 kg (Normal), BMI: 28.5 (Overweight), Recommended weight gain: 7 kg-11.5 kg, Mid-upper arm circumference (MUAC): 30 cm, estimated fetal weight: 2,480 grams, fetal heart rate: 135 beats/min, strong and regular, the maximum fundal height is 3 fingers above the umbilicus on the left side.

Based on the score, Pudji Rochyati is at high risk with the following condition details: initial pregnancy score 2, too long between pregnancies ≥10 years 4, age too old ≥35 years 4, high blood pressure 4. Total score 14. Therefore, she can be diagnosed as G2P10001, mother's age 41 years, gestational age 31-32 weeks, single fetus, alive, intrauterine, longitudinal lie, flexed posture, back on the left, head presentation, with very high-risk pregnancy and risk of preeclampsia (PE), mother and fetus are in good general condition, prognosis is good. According to Sadarang et al., (2024), they revealed that mothers over 35 years old and a history of chronic diseases, especially hypertension, are the dominant factors associated with high-risk pregnancies. In addition, maternal age above healthy reproductive years can lead to hypertension due to decreased elasticity of blood vessels and cardiovascular system capacity (Rosidah et al., 2025).

Chronic hypertension in pregnancy is defined as blood pressure ≥140/90 mmHg that existed before pregnancy or appears before 20 weeks of gestation and persists throughout pregnancy (Shariff & Widya Astuti, 2024; Laksono & Masrie, 2022). The anamnesis results based on the previous obstetric history show that the gap between Mrs. E's current pregnancy and her previous child is 16 years. This is considered a long pregnancy interval since it exceeds 10 years. A too long pregnancy interval is associated with increased risks of hypertension during pregnancy, preeclampsia, fetal growth disorders, prolonged labor, and postpartum bleeding (Haryanti & Armatani, 2021; Pajala & Hidayat, 2024).

The care plan provided includes regular blood pressure monitoring, fetal well-being checks, nutrition education, rest schedule management, counseling on warning signs of hypertension and preeclampsia, birth preparation, monitoring adherence to antihypertensive medication, as well as prenatal yoga as a complementary therapy. The action plan, which

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covers immediate actions, preventive steps, and comprehensive care, is tailored based on the mother's condition and the severity of the problem she is facing (Surtinah et al., 2019).

Prenatal yoga was done while paying attention to the mother's condition and ensuring there were no contraindications. Before doing prenatal yoga, blood pressure was measured at 139/97 mmHg. After doing yoga for 40 minutes and the mother resting for 5 minutes, blood pressure measurements showed vital signs of 137/95 mmHg. The previous systolic pressure of 139 mmHg became 137 mmHg, and the previous diastolic pressure of 97 mmHg became 95 mmHg. Prenatal yoga is a complementary therapy to help control blood pressure, which can influence the prevention of preeclampsia, improve relaxation, reduce stress, help the mother in stretching the joints with a duration of 90 minutes and a frequency of 2–3 times per week (Rachmawati et al., 2025; Simanjuntak, 2022; Indriayani et al., 2023).

In the author's opinion, the prenatal yoga exercises provided can help with relaxation. This is due to an increase in endorphin production, which leads to a decrease in stress hormones (cortisol), making the mother feel more relaxed and able to tolerate the back pain she experiences. Also, the duration of the prenatal yoga sessions wasn't the same as in theory because the mother is further along in her pregnancy, at risk for PE, and the enlarged uterus makes her tire quickly, so the timings and duration of the yoga were cut in half to adjust to her condition. The evaluation results from the care show that after receiving regular and proper midwifery care and prenatal yoga, the mother's condition remained stable, complaints were reduced, blood pressure was controlled, she felt more relaxed, her rest quality improved, and no signs of complications such as superimposed preeclampsia or fetal well-being issues were found.

Therefore, it can be concluded that the midwifery care provided to a high-risk pregnant mother with chronic hypertension, aged 41, and a 16-year pregnancy gap has been in line with theory and evidence-based practice. The implementation of prenatal yoga as a complementary therapy can be one of the non-pharmacological efforts to help control blood pressure, increase the mother's comfort, and support the well-being of both the mother and the fetus during pregnancy.

CONCLUSION AND SUGGESTION

Mrs. E falls into the category of very high-risk pregnancy due to chronic hypertension, a 16-year gap between pregnancies, and being 41 years old. These factors increase the risk of complications during pregnancy, childbirth, and the postpartum period, so closer and ongoing monitoring is needed. Prenatal yoga can be a complementary therapy effort to help lower blood pressure in pregnant women, while still being combined with non-complementary treatments. Evaluation results show that midwifery care through prenatal yoga can help improve comfort during pregnancy, reduce stress and anxiety, relieve back pain, and keep blood pressure stable without it rising further.

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