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Case study: Comprehensive midwifery care for pregnant women with gestational hypertension at PONEK Room, Simpang Lima Gumul Region Hospital, Kediri Regency

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***Abstract*:**
Hypertension in pregnancy (HIP) is one of the complications of pregnancy that requires serious attention because it can increase morbidity and mortality rates in both mothers and fetuses. This condition is characterized by an increase in blood pressure to 140/90 mmHg or higher after 20 weeks of pregnancy without proteinuria. If not managed properly, HDK can progress to preeclampsia, which may lead to severe complications. Management of HIP in obstetric care facilities includes early detection, close monitoring of the mother and fetus, administration of safe antihypertensive medications, and coordination among multidisciplinary teams. This case study describes comprehensive obstetric care for Mrs. R, G7P3A3H3, 37 weeks pregnant, who came to the PONEK Room at Simpang Lima Gumul Regional General Hospital with complaints of tightness since early morning. Examination results showed blood pressure of 155/100 mmHg, fetal heart rate of 140 beats per minute, cervical dilation of 3 cm, effacement of 25%, and positive amniotic fluid. Care was provided using the seven-step Varney obstetric management approach, starting with assessment, diagnosis, identification of potential problems, immediate action, planning, implementation, and evaluation of results. Interventions included regular monitoring of vital signs and fetal heart rate, education on danger signs, collaboration with an obstetrician-gynecologist, and administration of oral nifedipine 10 mg as first-line antihypertensive therapy. The intervention resulted in decreased blood pressure, stable maternal condition, good fetal condition, and the ability to proceed with vaginal delivery. In conclusion, comprehensive midwifery care planned and implemented with appropriate pharmacological therapy can stabilize the condition of pregnant women with HDK and increase the likelihood of a safe delivery for both mother and baby.

***Keywords*:**
midwifery care; hypertension in pregnancy; nifedipine; first stage of labor; case study

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INTRODUCTION

Hypertension in pregnancy (HIP) is one of the maternal health problems that can have serious consequences for both the mother and the fetus. This condition is characterized by an increase in systolic blood pressure ≥140 mmHg or diastolic blood pressure ≥90 mmHg occurring after 20 weeks

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of gestation without proteinuria, and blood pressure typically returns to normal within less than 12 weeks postpartum (Pratiwi et al., 2022). HIP falls under the category of gestational hypertension, and if not properly managed, it can progress to preeclampsia or eclampsia, which are life-threatening conditions. Regular blood pressure monitoring during antenatal check-ups is an important step in detecting this condition early.

Globally, hypertension during pregnancy is reported to occur in 5–10% of all pregnancies and is one of the leading causes of maternal mortality in many countries (Yurianti et al., 2020). In Indonesia, HIP remains a significant contributor to the high maternal mortality rate (MMR). This condition can disrupt blood flow to the placenta, increasing the risk of fetal growth restriction, preterm birth, and intrauterine fetal death. Prompt, appropriate, and evidence-based management is essential to reduce the risk of complications for both the mother and the fetus.

Common symptoms associated with HIP include headaches, dizziness, blurred vision, and limb swelling. These symptoms arise due to changes in the vascular and nervous systems triggered by elevated blood pressure. In diagnostic tests, proteinuria is typically not detected, unlike preeclampsia, which is characterized by the presence of protein in the urine(Pratiwi et al., 2022). Therefore, diagnosis requires a combination of careful medical history taking, physical examination, and diagnostic tests.

Management guidelines for HIP emphasize strict monitoring, the use of antihypertensive medications safe for pregnancy, and appropriate delivery planning. The Ministry of Health of the Republic of Indonesia recommends nifedipine, labetalol, or methyldopa as first-line therapy. Recent studies indicate that nifedipine is highly effective in lowering blood pressure in pregnant women with HDK and is safe to use until delivery (Khoerotun Nisa & Pulungan, 2024; Easterling et al., 2019; Yoselevsky et al., 2023; Cleary et al., 2023). Comprehensive management involves a combination of pharmacological therapy, education, close monitoring, and lifestyle modifications.

Based on this background, this case study report discusses comprehensive midwifery care for Mrs. R, a 37-year-old G7P3A3H3, during the latent phase of the first stage of labor, accompanied by hypertension during pregnancy, at the PONEK Room of Simpang Lima Gumul General Hospital, Kediri Regency. Care was provided using Varney's seven-step midwifery management model, which includes assessment, diagnosis, identification of potential problems, immediate action, planning, implementation, and evaluation. This report is intended to serve as a reference for evidence-based midwifery practice in effectively managing HIP to improve maternal and infant safety.

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METHODS

This study used a descriptive case study design to describe the management of Mrs. R, G7P3A3H3, who was 37 weeks pregnant, in the latent phase of the first stage of labor with hypertension during pregnancy and was treated at the PONEK Room of Simpang Lima Gumul Regional General Hospital, Kediri Regency, on June 17, 2025. The case was selected purposively based on the criteria of a pregnant woman experiencing hypertension during pregnancy and receiving care at a comprehensive obstetric and neonatal emergency facility (CEmONC). Management included the administration of oral nifedipine as indicated to lower blood pressure, recommendations for bed rest, regular monitoring of vital signs, fetal heart rate (FHR) monitoring, education for the mother and family regarding the signs of hypertension during pregnancy, and collaboration with obstetrician-gynecologists for delivery planning. All interventions are based on international guidelines for the management of hypertension in pregnancy (Dublin et al., 2022) and current literature discussing the management of gestational hypertension.

RESULTS

On June 17, 2025, Mrs. R, G7P3A3H3, 37 weeks pregnant, came to the Comprehensive Emergency Obstetric and Neonatal Care (CEmONC) Room at Simpang Lima Gumul Regional General Hospital, complaining of abdominal tightness accompanied by lower back pain that had been felt since morning. The mother also complained of mild dizziness, but without blurred vision or epigastric pain. From her obstetric history, the mother had experienced three live births, three abortions, and had three living children. A history of hypertension before pregnancy was denied, but during a previous antenatal examination, her blood pressure had reached high levels.

Physical examination results showed that the patient was in fair general condition with compos mentis consciousness, blood pressure of 155/100 mmHg, pulse rate of 88 beats per minute, respiratory rate of 20 breaths per minute, body temperature of 36.7°C, and fetal heart rate (FHR) of 144 beats per minute. Leopold's maneuver revealed a longitudinal lie, cephalic presentation, left-sided back, and the lowest part of the fetus had not yet entered the pelvic inlet. An internal examination was not performed as the mother was still in the latent phase of the first stage of labor. Based on these findings, the diagnosis was established as a latent phase of the first stage of labor with hypertension in pregnancy.

Management was performed with oral nifedipine 10 mg to lower blood pressure, left lateral recumbency to improve uteroplacental blood flow, monitoring of vital signs every 30 minutes,

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observation of FHR for early detection of fetal distress, education for the mother and family regarding the danger signs of hypertension in pregnancy, the importance of rest, and medication adherence, as well as collaboration with an obstetrician-gynecologist for delivery planning.

DISCUSSION

Hypertension in pregnancy is defined as an increase in blood pressure ≥140/90 mmHg that occurs after 20 weeks of gestation without proteinuria or a history of hypertension (Goddard et al., 2023). This condition has the potential to develop into preeclampsia if accompanied by proteinuria or signs of organ dysfunction. In this case, laboratory tests did not show proteinuria, so the diagnosis was gestational hypertension. The pharmacological management chosen was nifedipine, which acts as a calcium channel antagonist by reducing peripheral vascular resistance without significantly decreasing uteroplacental perfusion. Research by Li et al. (2023) demonstrates that nifedipine effectively lowers blood pressure rapidly in patients with severe preeclampsia, with minimal side effects. In contrast, Grenvik et al. (2023) report that nifedipine has a favorable safety profile, even in patients with high vascular risk, and provides faster blood pressure control compared to labetalol.

In addition to pharmacological therapy, non-pharmacological interventions such as left lateral recumbency, education, and close monitoring are important components of the management of gestational hypertension. Left side lying reduces compression of the inferior vena cava, thereby improving venous return and uteroplacental perfusion (Tita et al., 2022). Education for the mother and family is a crucial component to ensure adherence to treatment, optimize the mother's health condition, and prevent complications such as severe preeclampsia or eclampsia.

In this case, the combination of nifedipine, bed rest, close monitoring, and interprofessional collaboration successfully stabilized the mother's condition and maintained fetal well-being. Significant blood pressure reduction, accompanied by fetal heart rate stability, demonstrated the effectiveness of the interventions implemented. The alignment between theory and practice is evident, as all steps taken were based on evidence-based clinical guidelines and considered the availability of resources at the CEmONC facility. This integrated approach can serve as a reference for managing similar cases in the future, particularly at healthcare facilities with limited resources, but remain focused on maternal and infant safety.

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CONCLUSION

Comprehensive midwifery care for Mrs. R, G7P3A3H3, at 37 weeks of gestation with a latent phase of the first stage of labor, accompanied by hypertension in pregnancy at the Comprehensive Emergency Obstetric and Neonatal Care (CEmONC) facility, can be effectively implemented through integrated pharmacological and non-pharmacological management. The administration of oral nifedipine as first-line therapy, left-lateral recumbency, regular monitoring of vital signs, fetal heart rate observation, intensive education for the mother and family, and coordination with obstetrician-gynecologists have proven effective in stabilizing the mother's condition and maintaining fetal well-being. This collaborative approach demonstrates that the management of gestational hypertension can be optimally implemented at CEmONC facilities, despite resource limitations, provided that interventions are conducted in accordance with evidence-based guidelines and prioritize the safety of both the mother and baby.

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