

# In Part 1 Stage Active Phase with Severe Preeclampsia: Case Study

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**Abstract:** Preeclampsia is an ongoing complication of pregnancy. Regular antenatal care (ANC) is expected to prevent the development of preeclampsia or enable its earlier detection, thereby reducing subsequent danger. The impact of hypertension in pregnancy is: Preeclampsia and eclampsia can occur and can have an impact on the mother and fetus. This case study aims to analyze midwifery care for preeclampsia patients. The author uses a descriptive analytical method in the form of a case study approach in midwifery care for patients which includes review of subjective, objective data, analysis, management and documentation in Subjective, Objective, Analysis, Planning (SOAP) form. Based on the data review, it was found that signs and symptoms of severe preeclampsia were present complaints of dizziness, anxiety, heartburn and a history of high hypertension starting at 28 weeks of gestation. Inspection Vital signs BP 160/110 mmHg, physical examination shows edema in the lower extremities, and supporting examinations showed urine protein +1. Management has been carried out according to midwifery care in women giving birth with severe preeclampsia, namely RL 500 cc + 6 infusion grams of MgSO<sub>4</sub> 40% maintenance dose 20 drops/minute. Nifedipine 1 x 10 mg, Methyldopamet 2 x 20 mg administered.

**Keywords:** active phase, severe preeclampsia

Received: 6 August 2024

Revised: 7 August 2024

Accepted: 8 August 2024

Published: 8 August 2024

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## Introduction

Preeclampsia is an ongoing complication of pregnancy. The regular antenatal care (ANC) will prevent this development of preeclampsia or can also be detected earlier diagnose preeclampsia so as to reduce subsequent dangers. Likewise with the accuracy and supervision of internal health workers Finding early signs of preeclampsia can be immediate appropriate handling (Sabar et al, 2018).

According to the World Health Organization (WHO) Maternal Mortality Rate very high. Estimates for 2017 suggest that it is around 810 women die every day from complications related to pregnancy or childbirth around the world. In 2017, 295,000 women died during

and after pregnancy and childbirth. Almost all maternal deaths (94%) occur in low and lower middle-income countries, and nearly two-thirds (65%) occurred in the Organization's African Region. Ratio Maternal mortality in less developed countries reaches 415 per 100,000 births versus 12 per 100,000 in Europe and North America and 7 in Australia and New Zealand. There are large disparities between countries, with 11 countries have very high maternal mortality ratios of 600 or more per 100,000 live births in 2017 (WHO, 2017).

Hypertension is most common in women aged >30 years as much as 73.1%, aged 15-30 years as much as 6.4%. these conditions shows that hypertension occurs in the productive age group. By Therefore, it needs

comprehensive treatment, handling it in a way control of risk factors and regular treatment to avoid decline in the level of health and productivity of society. This is in line with WHO and Riskesdas data that non-communicable diseases, especially blood vessel diseases, are quite high (Garut District Health Service, 2020). The impact of hypertension in pregnancy is: Preeclampsia and eclampsia can occur and can have an impact on the mother and fetus. The maternal impact that arises due to hypertension in pregnancy is the mother in pregnancies with PEB in the form of mortality, HELLP syndrome, disorders vision, eclampsia, ICU admission, and sepsis while perinatal outcomes in the form of perinatal mortality, IUGR, LBW, asphyxia, fetal distress, and premature (Kalam et al., 2017).

## Method

This research uses a descriptive case study approach and literature review to determine midwifery care for preeclampsia patients. Signs and symptoms experienced by patients during the assessment include complaints of dizziness, anxiety, heartburn and a history of high hypertension starting at 28 weeks of gestation, examination Vital signs BP 160/110 mmHg, physical examination shows edema in the lower extremities, and supporting examinations showed urine protein +1. The priority obstetric problem identified is high blood pressure and the supporting examination is urine protein +1. The author uses midwifery management in the form of SOAP.

General management of preeclampsia according to the Indonesian Ministry of Health (2013) includes: a) General management: pregnant women with preeclampsia must be treated immediately referred to hospital. b) If a seizure occurs, pay attention to the airway, breathing (oxygen) and circulation (intravenous fluids). c) MgSO<sub>4</sub> is given intravenously to the mother with Severe Preeclampsia (PEB) as seizure prevention. d) Perform physical examinations every hour, including blood pressure, pulse rate, respiratory rate, patellar reflex, and number urine. e) If the respiratory rate is <16x/minute or there is oliguria (urine production <0.5 ml) immediately stop administering MgSO<sub>4</sub>. f) If respiratory depression occurs, give Ca gluconate 1g IV (10ml 10% solution bolus over 10 minutes). g) Administration of antihypertensives Nifedipine dose 10-20 mg orally, repeated after 30 minutes maximum 120 mg in 24 hours.

On April 20, 2022, at 09.35 an intervention was carried out in the PONEK (Comprehensive Emergency Obstetric Neonatal Services) Room at RSUD dr. Slamet Garut, West Java Province for a 26-year-old patient who was treated during the first stage of birth until the

postpartum period. The participants agreed to publish their health data anonymously.

## Result and Discussion

Based on the anamnesis obtained from Mrs. Just say it heartburn for 9 hours ago, fetal movement has been coming out still feeling, feeling dizzy and the mother has a history of hypertension pregnancy from 28 weeks of gestation. This is in accordance with theory Muzalfah et al., 2018. Namely the occurrence of preeclampsia which is abnormalities that occur in pregnancy after the 20th week to week 6th postpartum with high blood pressure protein in urine. Mother felt dizzy from the results of the examination by the Puskesmas midwife said the mother's high blood pressure was 180/110 mmHg as well urine examination results +1, this is a sign of symptoms severe preeclampsia. This is in accordance with Ekasari's 2019 theory that One of the signs and symptoms of severe preeclampsia is pressure high blood pressure 160/110 mmHg, urine protein 3g/liter or equivalent to +1, accompanied by complaints of dizziness.

From the results of the objective examination, the results of the examination were obtained with BP: 160/110 mmHg, N: 89 x/minute, R: 22 x/minute, S: 36.6°C, from the mother's weight before pregnancy, 75 kg and during the current pregnancy. The mother experienced a weight gain of 8 kg and the BMI was calculated there. The result of 31.2 kg/m in the mother's BMI results is obesity because it is  $\geq 30$  kg/m and this has a risk in pregnant women experiencing preeclampsia (Prawihardjo, 2011). And on physical examination the mother's eyes were normal. The mother's vision is clear (not blurred) and in the extremities. The mother's bottom had swelling (edema) when the results were carried out supporting examination showed urine protein +1. This is in accordance with Prawihardjo's theory in 2016 that severe preeclampsia is a disease that have two or more symptoms such as systolic blood pressure  $\geq 160$  mmHg, diastolic blood pressure  $\geq 110$  mmHg, proteinuria  $> 300$ mg/24 hours or  $\geq 1+$ .

An obstetric diagnosis is made after an assessment has been carried out completely, the patient was diagnosed in parturologically with preeclampsia severe seen from subjective data, namely the patient said he already had heartburn - heartburn, this is my second birth and I have never experienced it before miscarriage, patients also, complain of dizziness and high blood pressure. And if we look at the objective data, we get a BP result of 160/110 mmHg dilated 6 - 7 cm, the membranes have broken and urine protein is +1, then Inpartum analysis can be carried out in the 1st Stage of the Active Phase with Severe Preeclampsia. This is in accordance with the 2013 Ministry of Health theory of diagnostic criteria Preeclampsia includes: hypertension at gestational age above 20 weeks where blood pressure is  $\geq 160/110$  mmHg in severe preeclampsia, proteinuria

criteria in severe preeclampsia, namely protein examination quantity  $\geq 5$  grams / 24 hours or urine dip test shows proteinuria  $\geq 2+$  or accompanied by involvement of other organs.

Upon arrival at PONEK, a complete examination is carried out, namely got blood pressure of 160/110 mmHg, then collaborated with a doctor to administer drug therapy, namely installing an infusion of D5 + oxytocin 5 IU. Carry out inspections and monitor maternal blood pressure, FHR every 1 hour and observe progress of labor. Carrying out laboratory examinations, namely taking venous blood peripheral and urine protein examination. According to Prawihardjo's theory (2014) The urine examination aims to see the presence of protein in the urine and find out that there are some changes occurring in the kidneys. Decreased blood flow to the kidneys due to hypovolemia causes oliguria and anuria occur. The severity of oliguria illustrates the severity of hypovolemia as well as describing the severity preeclampsia.

Give nifedipine therapy 3 x 10 mg/orally. According to theory Indonesian Ministry of Health (2013). Mothers with severe preeclampsia need therapy antihypertensive administration of maternal blood, some antihypertensive drugs for example nifedipine, nicardion, and methyldopamet. Before administering mgSO<sub>4</sub>, an examination is carried out breathing with results of 24 x / minute, then the patellar reflex is positive and in urine protein, the results were 300 cc / 0.5 ml/kg/hour. This is appropriate with Prawihardjo's (2014) theory that the conditions for administering MgSO<sub>4</sub>. The condition for giving is that Ca Gluconas is available 10% patellar reflex +/- and urine production of at least 0.5 ml/kg BB/hour. Monitoring and strict inspection every hour and monitored.

## Conclusion

The role of the midwife is one of the supporting factors for pregnant women to avoid hypertension during pregnancy, childbirth and the postpartum period. In this case the role Midwives are really needed as implementers, managers, educators and researchers. In antenatal care services, midwives play a role in providing counseling Information and Education (KIE) to prevent pregnant women from things that happen threaten the health or safety of the mother and fetus.

## Acknowledgments

I would like to thank the patients who have agreed to have their data published, not forgetting also the academic and clinical preceptors who have guided us so that midwifery care for patients can be optimal.

## Funding

The research was not funded by any party.

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