

THE RELATIONSHIP OF COMPLIANCE WITH ASPILET DRINKING IN PREGNANT WOMEN, THE RISK OF PREECLAMPSIA AND THE INCIDENT OF ECLAMPSIA

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ABSTRAK HUBUNGAN KEPATUHAN MINUM ASPILET PADA IBU HAMIL RESIKO PREEKLAMPSIA TERHADAP KEJADIAN EKLAMPSIA

Latar Belakang Preeklamsia merupakan salah satu kelainan hipertensi pada kehamilan yang meningkatkan morbiditas dan mortalitas ibu hamil secara global. Preeklamsia memiliki definisi dan kriteria diagnostik yang beragam dalam upaya menegakkan diagnosis yang umumnya memiliki kesamaan antara satu dengan yang lain. Perawatan kehamilan merupakan salah satu faktor yang sangat perlu diperhatikan untuk mencegah komplikasi dan kematian saat melahirkan, serta menjaga pertumbuhan dan kesehatan janin. Aspirin dosis rendah sebagai upaya preventif pada ibu yang berisiko tinggi mengalami preeklamsia dengan hasil penelitian bahwa pemberian Aspirin dapat menjadi upaya preventif terhadap kejadian preeklamsia. Tujuan Penelitian ini bertujuan untuk mengetahui hubungan antara kepatuhan minum aspirin pada ibu hamil dan risiko preeklamsia dengan kejadian eklampsia. Metode Penelitian ini memiliki 85 responden dengan menggunakan teknik pengambilan sampel yaitu purposive sampling. Desain penelitian ini menggunakan jenis korelasi dengan pendekatan cross sectional. Analisis bivariat pada penelitian ini menggunakan Chi-Square. Hasil penelitian ini sebagian besar ibu hamil patuh minum aspirin 94,1%, sebagian besar tidak terjadi eklampsia sebesar 98,8% dan terdapat hubungan antara kepatuhan ibu hamil terhadap risiko preeklamsia minum aspirin dengan kejadian preeklamsia. kejadian eklampsia di wilayah kerja Puskesmas Ajung tahun 2022 dengan p value -value 0,000 ($p < 0,05$). Saran Penelitian ini diharapkan dapat dijadikan masukan dan tambahan informasi data berbasis teori dalam ilmu penanganan ibu hamil berisiko preeklamsia.

Kata Kunci: kepatuhan, kejadian eklampsia, preeklamsia.

ABSTRACT

Background_Preeclampsia is one of the hypertensive disorders in pregnancy that increases the morbidity and mortality of pregnant women globally. Preeclampsia has various definitions and diagnostic criteria in an effort to establish a diagnosis which generally have similarities between one another. Pregnancy care is one of the factors that really need to be considered to prevent complications and death during childbirth, as well as to maintain the growth and health of the fetus. Low-dose aspirin as a preventive effort for mothers who are at high risk of developing preeclampsia with the results of research that giving Aspirin can be a preventive effort against the incidence of preeclampsia. purpose oThis study aims to identify the relationship between adherence to aspirin for pregnant women and the risk of preeclampsia with the incidence of eclampsia. method This study has 85 respondents using a sampling technique that is purposive sampling. The design of this study uses a type of correlation with a cross sectional approach. Bivariate analysis in this study used Chi-Square. The results of this study were that most pregnant women were obedient to taking aspirin 94.1%, most of them did not occur 98.8% of eclampsia and there was a relationship between adherence of pregnant women to the risk of pre-eclampsia taking aspirin with the incidence of eclampsia in the working area of Ajung Public Health Center in 2022 with a p value -value 0.000 ($p < 0.05$). . Conclusion This research is expected to be used as input and additional theory-based data information in the science of handling pregnant women at risk of preeclampsia.

Keyword: compliance, incidence of eclampsia, preeclampsia.

INTRODUCTION

Preeclampsia is a hypertensive disorder in pregnancy that increases the morbidity and mortality of pregnant women globally. Preeclampsia has

various definitions and diagnostic criteria in efforts to establish a diagnosis which generally have similarities between one another. The International Society For The Study of Hypertension in Pregnancy

(ISSHP) in its publication defines preeclampsia as a condition where de novo hypertension is found at a gestational age of more than 20 weeks, in this case, hypertension is a condition where the systolic blood pressure is ≥ 140 mmHg and diastolic pressure ≥ 90 mmHg, and can be accompanied by proteinuria, organ dysfunction in pregnant women, such as acute renal failure, impaired liver function, neurological symptoms, hemolysis or thrombocytopenia, and impaired fetal growth. Proteinuria is not necessary for the diagnosis of preeclampsia, but proteinuria can be found in approximately 75% of cases. Most risk factors for preeclampsia have a close relationship with risk factors for heart disease, such as age, previous history of hypertension, diabetes, and obesity (Lumbanraja, 2018). Most risk factors for preeclampsia have a close relationship with risk factors for heart disease, such as age, previous history of hypertension, diabetes, and obesity (Lumbanraja, 2018).

Risk factors that are often found in preeclampsia are a history of preeclampsia, chronic hypertension, diabetes mellitus discovered before pregnancy, antiphospholipid antibodies syndrome (APLs), and obesity. Other risk factors found in preeclampsia are the age of the pregnant woman > 35 years, nullipara, history of chronic kidney disease, and use of technology to assist pregnancy (assisted reproductive technology). Risk factors that are rarely found in preeclampsia are a family history of preeclampsia, and mothers carrying fetuses with trisomy abnormalities. (Rana et al., 2019).

The World Health Organization (WHO) reports that preeclampsia is directly responsible for 70,000 maternal deaths and 500,000 infant deaths every year worldwide (English et al., 2015). Epidemiological data shows that preeclampsia occurs in 10% of pregnant women worldwide. These conditions can include preeclampsia, eclampsia, gestational hypertension, and chronic hypertension. is the most common condition, with an incidence of 2–8% of all pregnancies in the world. The incidence of preeclampsia was found to be higher in nulliparous women (3–7%) than multiparous women (1–3%) (American College of Obstetricians and Gynecologists, 2020). The prevalence of preeclampsia in developing countries ranges from 1.8–16.7% (Osungbade, 2016). The maternal mortality rate in Indonesia in 2020 reached 4,627 people, the causes of maternal death include bleeding (28.29%), hypertension (23%) and circulatory system disorders (4.94%) (Indonesian Health Profile, 2020). Preeclampsia is one of the three highest causes of maternal death in East Java

Province. In 2020, the MMR in East Java was 98.39 / 100,000 KH

(East Java Health Profile, 2020). Meanwhile in Jember district the number of MMR was 174/100,000 KH with 61 deaths (Jember Health Profile, 2020).

A study in several hospitals in Jakarta showed that pregnant women with low and medium education were 1.8 times more at risk of developing preeclampsia than pregnant women with higher education (Indriani, 2015). Apart from that, maternal age is also a risk factor for preeclampsia. Women who become pregnant when they are teenagers (< 20 years) and > 30 years of age are more at risk of developing preeclampsia than women who become pregnant when they are between the ages of 20-30 years (Kumari et al., 2016:57). Another risk factor for preeclampsia is gemelli (twin pregnancy). Mothers with gemelli are 10.3 times more at risk of developing preeclampsia compared to women with single pregnancies (Shen et al., 2017: 7).

A pregnant woman's compliance in having her pregnancy checked is very necessary so that any complaints can be handled as early as possible and important information for pregnant women can be conveyed so that the maternal mortality rate can be reduced to a minimum. Counseling provided by health workers can help mothers monitor their development and health during pregnancy. Information provided by health workers to mothers who are at risk of preeclampsia/eclampsia can take preventive measures by carrying out routine check-ups, avoiding consuming foods that can cause hypertension during pregnancy. The Indonesian Obstetrics and Gynecology Association (POGI) recommends that the first choice of antihypertensives for preeclampsia is short-acting oral nifedipine, hydralazine and parenteral labetalol and other alternative antihypertensives are nitroglycerin, methyldopa and labetalol (POGI, 2016). The choice of drugs used must be safe, effective and rational to produce the desired effect. Drug therapy during pregnancy requires special attention because of the threat of teratogenic effects of drugs and physiological changes in the mother in response to pregnancy. Drugs can penetrate the placental barrier and enter the fetal circulation (Schellack, 2016). The choice of drugs during pregnancy must consider the ratio of benefits and risks for the mother and fetus to produce safe and rational therapy. Therefore, based on a preliminary study carried out in April 2022 at the Ajung Community Health Center, it shows that the number of cases of eclampsia in pregnant women between January - April 2022 was 53 cases. With this

background, researchers are interested in examining whether compliance with taking aspirin in pregnant women at risk of pre-eclampsia has an effect on the incidence of eclampsia in the Ajung Community Health Center area.

RESEARCH METHODS

Based on the method used, this research uses a cross-sectional approach. The population in this study were 108 pregnant women whose gestational age was more than 20 weeks in the Ajung Community Health Center area (based on EPPGBM data, March 2022)

It is planned that this research will be carried out in the working area of the Ajung Community Health Center, Jember Regency. Data collection for this research was carried out on August 15 2022 to September 15 2022. In this study the instrument used was a questionnaire. Independent Variable Instrument

respondent compliance in taking aspirin. The scale on the instrument uses a nominal scale which consists of two answer options, namely yes and no.

The Dependent Variable is a questionnaire containing about eclampsia. This instrument contains the level of eclamptic convulsions. Scoring measurements for categorization were adapted from Azwar, (2021) with a rating scale technique in the form of a Guttman scale, namely for the answer Yes to questions number 1-4, it is given a weight of one point, while the answer to Yes to questions number 5-10 is given a weight of two points, while for all answers not given a point weight of zero, with the data processing using 1). Editing,2). Coding, 3). Processing/Entry, 4). Cleaning, 5). Tabulating.

RESEARCH RESULT

Based on table 1, it can be seen that most of the compliance of pregnant women with the risk of pre-eclampsia in taking Aspilet medication was 80 respondents (94.1%) and 5 respondents (5.9%) were non-compliant.

Tabel 1
Pregnant women's compliance with the risk of pre-eclampsia in taking Aspilet medication

Compliance of pregnant women	Total	Percentage
Obedient	80	94,1%
Not obey	5	5,9%

Tabel 2
Identify the incidence of eclampsia

Ekalmision event	Total	Percentage
Eclampsia occurred	1	1,2%
No eclampsia occurred	84	98,8%

Based on table 2, it can be seen that the majority of eclampsia did not occur, namely 84 respondents (98.8%) and eclampsia occurred in 1 respondent (1.2%).

The relationship between the compliance of pregnant women with the risk of pre-eclampsia in taking Aspilet medication and the incidence of eclampsia

Based on table 3, it can be seen that the majority of respondents who were pregnant women at risk of pre-eclampsia adhered to taking Aspilet medication and 80 respondents did not experience eclampsia.

Table 3
Cross-tabulation of pregnant women's compliance with the risk of pre-eclampsia taking aspirin medication with the incidence of eclampsia

Obedience	Ekalmision event		Total
	Happen	Not occur	
Obedient	0	80	80
Not obey	1	4	5

Table 4
Relationship between compliance of pregnant women with the risk of pre-eclampsia in taking Aspilet medication with the incidence of eclampsia

The relationship between the compliance of pregnant women with the risk of pre-eclampsia in taking Aspilet medication and the incidence of eclampsia	Value	df	Signifikasi
Pearson Chi-Square	16,190	1	0,000

Based on table 4, it can be seen that the calculated Chi-Square value is 16.190 with df being 1 (Chi-Square table 3.841). Chi-Square count > Chi-Square table (16.190 > 3.841). And the Chi-Square significance result is $0.000 < \alpha$ ($\alpha = 0.05$). So it can be concluded that there is a relationship between pregnant women's compliance with the risk of pre-eclampsia taking aspirin medication and the incidence of eclampsia in the Ajung Community Health Center working area.

DISCUSSION

Based on known data, most of the compliance of pregnant women with the risk of pre-eclampsia in taking Aspilet medication was 80 respondents (94.1%) and 5 respondents (5.9%) were non-compliant. According to researchers' assumptions, a person's compliance in undergoing treatment occurs because the patient knows the risk of disease complications when they do not regularly take medication. This happens because patients have received good education from health workers and pregnant women regularly carry out antenatal care checks. So that midwives can provide regular evaluation and education so that patients continue to regularly take Aspilet medication during pregnancy with indications according to the education provided by the midwife. This is proven by the fact that the majority of patients are aged 21-25 years, which is the ripe age to receive education about health and will trust the education provided by health workers. The older the patient, the easier it will be to accept the information provided by health workers.

In line with research conducted by Sundari (2019), 15 pregnant patients at risk of preeclampsia routinely took aspirin out of a total of 17 pregnant patients at risk of preeclampsia. Research conducted by Nanindah (2019) showed that pregnant women at risk of preeclampsia had good compliance in taking nifedipine at 67.8%. Utami's research (2018) showed that pregnant women with a high risk of preeclampsia had ANC control compliance of 80.4%.

Compliance with taking medication is one of the factors that influences the outcome of seizure sufferers, a disease that requires long-term therapy during pregnancy. Poor medication adherence is a major problem that causes high cases of therapy failure, recurrent seizures, increased rates and time of use of health care facilities and increased medical costs. The mortality rate for patients who do not adhere to taking medication is 3 times higher than for patients who comply. Medication non-compliance can be intentional or unintentional. Several factors influence medication adherence, such as side effects, number of treatment regimens, frequent daily

doses, lack of drug efficacy, public stigma and cost. Non-compliance with taking medication can include not adding medication when the medication runs out, stopping medication yourself, forgetting to take medication and not taking medication according to schedule (Permana & Hardi, 2019).

Motivation of health workers is another factor that can influence compliance. Their motivation is especially useful when the patient realizes that the new healthy behavior is important. Likewise, they can influence patient behavior by conveying their enthusiasm for certain actions from the patient, and continuously providing positive rewards for patients who have been able to orientate themselves with the treatment program (Amperaningsih, 2016). Knowledge is the result of knowing, and occurs after sensing a particular object. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste and touch. Most of it is obtained through the eyes and ears (Notoatmodjo, 2015). Knowledge is obtained from the learning process which can form certain beliefs so that a person behaves based on his beliefs and knowledge is related to obedience because knowledge is a very important domain for the formation of behavior (Kartikasari, 2016).

Identification of eclampsia events

Based on the data, it can be seen that the majority of eclampsia did not occur, namely 84 respondents (98.8%) and eclampsia occurred in 1 respondent (1.2%). According to researchers' assumptions, pregnant women with a previous risk of eclampsia will experience signs during the pregnancy phase such as high blood pressure, high urine protein and swelling in the extremities. If the patient experiences the above complaints, the patient will receive medication to prevent eclampsia during the final phase of pregnancy. When a pregnant woman experiences an increase in blood pressure, the pregnant woman will experience complaints such as dizziness and fatigue which will make the pregnant woman have an examination. Pregnant women will receive medication and education from midwives to ensure that patients receive regular evaluations during their pregnancy. The patient will be seen taking care of the health of the mother and the unborn child

This is proven by the age of most patients being 21-25 years, which is a low risk of preeclampsia. Age is the most important benchmark in human reproduction. As age progresses, there is also an increase or increase in body function and this has an impact on health status. The theory states that teenagers or the end of the reproductive age period,

namely 35 years and above, are prone to preeclampsia. Pregnant women aged under 20 years are susceptible to unstable blood pressure, while those aged over 35 years are susceptible to increased blood pressure. The results of this study prove that age has an influence on the incidence of preeclampsia where mothers are aged between 20 and 35 years and over (Nursal, 2015). Preeclampsia, known as toxemia of pregnancy or pregnancy-induced hypertension, is a complication during pregnancy that appears during pregnancy, childbirth or during the postpartum period and has symptoms such as proteinuria, hypertension, edema which is sometimes accompanied by convulsions, serious conditions like this. need to get medical treatment because it can affect the health and safety of the fetus (Lombo, 2017). Preeclampsia occurs during the 20th week of pregnancy, symptoms include a sudden increase in blood pressure and the presence of protein in the urine (Lombo, 2017).

Relationship between compliance of pregnant women with the risk of pre-eclampsia in taking Aspilet medication with the incidence of eclampsia

Based on the data, it can be seen that the calculated Chi-Square value is 16.190 with df being 1 (Chi-Square table 3.841). Chi-Square count > Chi-Square table (16.190>3.841). And the Chi-Square significance result is $0.000 < \alpha$ ($\alpha=0.05$). So it can be concluded that there is a relationship between pregnant women's compliance with the risk of pre-eclampsia taking aspirin medication and the incidence of eclampsia in the Ajung Community Health Center working area. According to the researchers' assumptions, compliance in taking acylet medication will have a good impact on patients who are at risk of experiencing eclampsia in pregnant women with signs of pre-eclampsia. Because when a patient gets aspirin, the patient will also receive education from the midwife about the risks of disease that occur during pregnancy. Aspilet medication is useful for pregnant women in thinning the blood during pregnancy according to indications. Patients at risk of preeclampsia will have thicker blood which will affect the pressure on the blood vessels which will increase the risk of high blood pressure. If you don't get maximum treatment immediately, it will cause miscarriage of pregnancy by building up purines in the blood which will make the patient more at risk of having seizures. With smoother blood flow, the risk of eclampsia will be lower. Pregnant women must do this regularly to comply with control so that they can carry out regular

evaluations regarding aspirin consumption and other antenatal care measures.

In line with Maisarah's (2020) research on Evaluation of the Use of Antihypertensive Drugs in Pregnant Women with Preeclampsia at Abdul Wahab Sjahrani Samarinda Hospital for the January-December 2020 Period, which stated that the results showed that 33 patients (66%) used the antihypertensive drug nifedipine, methyldopa was used in 2 patients. (4%), and combination therapy of nifedipine and methyldopa in 15 patients (30%). Evaluation of the use of antihypertensive drugs based on patient rights (100%), appropriate indication (100%), appropriate drug (100%) and appropriate dose (98%). Research conducted by Arminda (2020) on low dose Aspirin as a preventive measure for mothers who are at high risk of developing preeclampsia with research results that giving Aspirin can be a preventive measure against the incidence of preeclampsia with a dose of 75-150 mg per day, given at night to mothers of gestational age 16-20 weeks, given until 36 weeks of gestation, high risk of preeclampsia. Research conducted by Sholiha (2020) regarding the evaluation of the appropriate use of antihypertensive drugs in pregnant women with preeclampsia at RSUD dr. H. Moh Anwar Sumenep for the period January – September 2019 stated that the antihypertensive drugs used were Calcium Chanel Blocker (CCB) class antihypertensives, namely nifedipine at 98.46% and amlodipine at 1.54%. Evaluation of the accuracy of drug use showed that patient results were correct at 98.46%, correct indications were 98.46%, correct drug use was 98.46% and correct administration intervals were 100%

Research conducted by Nanindah (2019) on the significant relationship between adherence to taking nifedipine medication and the risk of preeclampsia in pregnant women with a Kendall's tau significance value of 0.000. Research conducted by Utami (2018) using the Chi-Square test showed that there was a relationship between pregnant women's control compliance in ANC examinations and the incidence of preeclampsia. Aspilet is a drug that belongs to the antiplatelet drug group, which is a type of blood thinning drug. This drug is used to thin the blood and prevent blood clots. Aspilet or Aspirin is a low dose blood thinning drug used to prevent thromboembolic and cardiovascular diseases such as stroke and is also recommended for diabetes sufferers. In pregnant women, the use of this drug is usually aimed at preventing preeclampsia and babies born prematurely or with low birth weight. Doctors usually recommend this drug for mothers who are pregnant for the first time, are over 35 years old or

have a history of preeclampsia, eclampsia, hypertension and diabetes. The main ingredient of this drug is acetylsalicylic acid which is able to prevent blood viscosity (Permatasari, 2021). Preeclampsia, known as toxemia of pregnancy or pregnancy-induced hypertension, is a complication during pregnancy that appears during pregnancy, childbirth or during the postpartum period and has symptoms such as proteinuria, hypertension, edema which is sometimes accompanied by convulsions, serious conditions like this. need to get medical treatment because it can affect the health and safety of the fetus (Lombo, 2017). Preeclampsia occurs during the 20th week of pregnancy, symptoms include a sudden increase in blood pressure and the presence of protein in the urine (Lombo, 2017).

CONCLUSION

Based on the results of the analysis and discussion, it can be concluded as follows: The majority of pregnant women at risk of preeclampsia adhere to taking aspirin, 80 respondents (94.1%). The majority of pregnant women do not experience eclampsia, 84 respondents (98.8%). There is a relationship between the compliance of pregnant women with the risk of pre-eclampsia taking aspirin medication with the incidence of eclampsia in the working area of the Ajung Community Health Center in 2022 with the Chi-Square significance result being $0.000 < \alpha$ ($\alpha=0.05$). So with the data that has been presented by researchers for further research, the thing that must be paid attention to, especially for future researchers, is that this can be used as a database and theory for future researchers in adding insight into the treatment of pregnant women at risk of preeclampsia in the working area of the Ajung Community Health Center. It can also be used as input and data-based information in efforts to prevent and promote pregnant women at risk of preeclampsia.

SUGGESTION

It is hoped that this research can be used as input material and additional theory-based data information in the science of treating pregnant women at risk of preeclampsia as well as as a reference in increasing awareness about always consulting with health workers during pregnancy.

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