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PREVALENCE OF HYPERTENSION IN PREGNANCY AT DR R SOEHARSONO HOSPITAL BANJARMASIN IN 2019

I Made Aryasa Mugi Raharja[1], Wina Kartika Wati[2]

[1] Indonesian Doctor Internship Program at Dr. R. Soeharsono Hospital Banjarmasin, South Kalimantan, Indonesia

Abstract: **Background: High blood pressure, especially preeclampsia and eclampsia, is still a major cause of maternal and/or perinatal morbidity and mortality in several parts of the world, including Indonesia.**

Purpose: Knowing the description of pregnancy cases with complications of high blood pressure at dr. R Soeharsono Hospital

Result: Most cases (62.5%) of pregnancy with complications of Preeclampsiawere aged 35 years, but quite a lot (37.5%) cases were over 35 years old, in fact there were 6.25% aged 40 years and over. In addition, there is also 1 case who is 15 years old and unmarried. Although the majority (39.1%) of cases were second and third pregnancies, 28.12% were primi gravida, and 32.82% were fourth or more pregnancies or grande multipara. In fact, there are 1.56% of cases of pregnancy in the sixteenth. The age of pregnant women was mostly 84.12% of cases with gestational age at term, and 35.94% of cases of Preeclampsiawith severe features, 26.56% of cases of Preeclampsiawithout severe features, 4.69% of cases with superimposed pre-eclampsia, and only 1.56% of eclampsia cases. Almost all 98.44% were singleton pregnancies, most of them 89.06% had a body mass index above normal (over weight and obesity). A total of 93.75% used the financing of the National Health Insurance, and 79.69% were born by cesarean section. There were no cases of maternal death, most (85.94%) were born in a vigourous state, 7.82%) died and 1.56% were with asphyxia.

Conclussion: The case of pregnancy with complications of high blood pressure at dr. R Soeharsono Hospital Banjarmasin is mostly Preeclampsiawith severe features, multiparity pregnancy, aged 35 years, singleton pregnancy, overweight and obesity. There are still many pregnancies with complications of high blood pressure over the age of 35 years, grande multipara, and caesarean section performed.

Keywords: **Preeclampsia, Ecclampsia, Hypertension, Pregnancy.**

I. INTRODUCTION

Preeclampsia is still a global maternal and perinatal health problem, especially in Indonesia.

The cause of preeclampsia is pregnancy itself, but there is no agreement on the mechanism of its occurrence. The various theories put forward have not been able to satisfy the results of the treatment/prognosis so that it is still a disease of theories. These disease of theories lead to various variations in the management of PE and lead to different prognoses of maternal morbidity and mortality.[4,5]

The prevalence of Preeclampsia is reported to vary in different countries. In the world, the prevalence of Preeclampsia is around 4.6%. In Indonesia the incidence of Preeclampsia ranges from 5-10% and in Sanglah Hospital 9.23%, and 5.83%. The difference in the prevalence of Preeclampsia is not significant in developed countries versus developing countries, namely 2-8% in the United States, Canada, and Western Europe : 3.0-5.83% in several Major Hospitals in Indonesia.[5,6]

The World Health Organization reports that 14% of maternal deaths are contributed by pregnany induced high blood pressure, especially Preeclampsia (World health statistics 2016: monitoring health for the sustainable development goals SDGs 2016)[4,5]. High blood pressure in pregnancy, including preeclampsia, contributes to 27.1% of maternal deaths in Indonesia. Even maternal mortality contributed by hypertension in pregnancy was 21.5% in 2010 and increased by 24.7% in 2011, 26.9% in 2012 and 27.1% in 2013. In East Java, high blood pressure in pregnancy even accounts for 28.2% of maternal deaths.[1,2,4,5]

The following is a study of the description of pregnancy cases with complications of high blood pressure at level III hospital dr. R Soeharsono Banjarmasin, South Kalimantan. Hopefully it can be studied so that it can be used as data for better maternal and perinatal health services.

II. MATERIAL AND METHODS

This is a retrospective descriptive observational study on secondary data from medical records of pregnancy with complications of high blood pressure treated at level III hospital dr. R SOEHARSONO Banjarmasin South Kalimantan during 2019.

This research was conducted while participating in the Indonesian Doctor Internship Program at Level III Hospital dr. R SOEHARSONO Banjarmasin South Kalimantan starting November 2019

III. RESULT AND DISCUSSION

During 2019 there were 64 cases of pregnancy with complications of high blood pressure at Dr. R Soeharsono Hospital Banjarmasin, South Kalimantan.

If we look at the maternal age, most of them (57.82%) are 35 years old. However, there were quite a number of 26 (40.62%) cases aged over 35 years, in fact there were 4 cases (6.25%) aged 40 years and over. Of the 26 cases aged 35 years, most (65.38%) were Preeclampsia with severe features, 11% Preeclampsia without severe features and 1.56% superimposed preeclampsia. Research at RSUP PROF DR. R. D. KANDOU MANADO in 2015 found that 81.7% were aged 35 years . Research in RSUD dr. Soetomo in 2012 found that pregnancies with Preeclampsia and eclampsia were 23.41% aged over 35 years and 12.47% aged under 20 years, mostly 64.12% aged 20-35. Research in the Puskesmas area in Sukoharjo in 2019 found 13.3% of Preeclampsia cases aged under 20 years and above 35 years .

There is also 1 case who is 15 years old and unmarried. The age specific incidence rate of high blood pressure in pregnancy is unknown at the DR. R. Soeharsono Hospital Banjarmasin, South Kalimantan.

Maternal age data in this study are in accordance with many studies. Many researchers and professional groups include maternal age over 35 years as an important risk factor for high blood pressure, especially Preeclampsia.

All of these professional groups make age over 35 years a moderate risk factor for high blood pressure in pregnancy, especially preeclampsia.

Table 1: Subject Description

	N	%
Age		
< 20 years	1	1,56
20-35 years	37	57,82
> 35 years	26	40,62
Body Mass Index (BMI)		
< 18,5	-	-
18,5-24,9	9	14,06
25-29,9	20	31,25
≥ 30	35	54,69
Refferal Status		
Without Refferal	17	26,56
Midwifes Refferal	7	10,94
Primary Healthcare refferal	2	3,12
Obstetrician refferal	38	59,38

Sign & Symptom		
Headache/other	6	9,38
Inpartu	13	20,31
Rupture of membrane	19	29,69
Without complaints	26	40,62
Charge Scheme		
Pay of pocket	5	7,81
National Healtchare Insurance	58	90,63
others	1	1,56
Type of Pregnancy		
Primigravida	18	28,12
Multigravida	25	39,1
Grande Multipara	21	32,82
Gestasional Age		
Preterm	14	21,88
Aterm	50	78,12
Posterm	-	-
Characteristic of Preeclampsia		
Severe Preeclampsia	43	67,19
Mild Preeclampsia	3	4,69
Superimposed Preeclampsia	17	26,56
Gestational Preeclampsia	-	-
Eclampsia	1	1,56
Type of Labour		
Vaginal birth	13	20,31
C-Section	51	79,69
Infant Condition		
Vigourous	55	85,94
IUGR	5	7,81
Mild Asphyxia	-	-
Severe Asphyxia	1	1,56
Death	3	4,69
Length of treament		
1-2 hari	3	4,69
3-5 hari	55	85,94
> 5 hari	6	9,37
Maternal Condition		
Healthy	64	100
Death	-	-

Most of the 25 (39.1%) cases were multipara or second and third pregnant, and 18 (28.12%) cases were primi gravida. However, there were quite a large number of cases with a fourth or more pregnancy or grand multipara, namely 21 (32.82%) cases. There was even 1 (1.56%) cases of pregnancy in the sixteenth. The number of fourth or more pregnancies with complications of high high blood pressure deserves attention and consideration to develop prevention efforts. These data may be difficult to find in developed countries even though there are still many cases of pregnancy with complications of pre-eclampsia. Only the Society of Obstetric Medicine of Australia and New Zealand- Royal Australian and New Zaeland College of Obstetricians and Gynecologists included nullipara as a risk factor for moderate to high blood pressure in pregnancy, especially Preeclampsia.

In terms of gestational age, most or 50 (84.12%) cases had term gestation, 14 (21.87%) cases had preterm gestation, and no postterm pregnancy. This is a good condition because it is followed by maturity so that the neonatal outcome will be better. It was proven in this study, most of the 55 (85.94%) cases of babies were born in a vigourous baby state, 5 (7.81%) experienced intrauterine growth restriction, 1 (1.56%) with asphyxia. and 3 (4.69%) who died. While research in Surabaya in 2012 found 56.7% of term pregnancies, 31.8% preterm pregnancies and 2.8% post-term pregnancies .

Of the 64 cases of pregnancy with complications of high blood pressure at Tk III Hospital, dr. R Soeharsono Banjarmasin, as many as 23 (35.94%) cases of Preeclampsiawith severe features, 17 (26.56%) cases of Preeclampsiawithout severe

features, 3 (4.69%) cases with superimposed pre-eclampsia, and only 1 (56%) cases of eclampsia. In terms of age, 23 cases of Preeclampsiawith severe features, 17 (73.91%) were aged 35 years, and 6 (26.09%) were 20-35 years old. This shows that maternal age 35 years are more likely to experience Preeclampsia with severe features. Research on the characteristics of pregnancy with Preeclampsia and eclampsia in RSUD dr. Soetomo in Surabaya in 2012 found that 75.06% were Preeclampsia with severe features and 16.03% were eclampsia.

Besides maternal age and obesity or an increase in body mass index, multiple pregnancy is also a risk factor for Preeclampsia. However, in this study almost all 63 (98.44%) were singleton pregnancies, only 1 (1.56%) were gemelli pregnancies.

Some researchers consider obesity as a risk factor for high blood pressure in pregnancy, especially Preeclampsia.

In this study, only 9 (14.06%) cases had body mass index within normal limits (BMI: 18.5-24.9), 20 (31.25%) with overweight criteria (BMI: 25-29, 9), and most of the remaining 35 (54.69%) were obese (BMI: 30). And there were no cases with body mass index below normal (BMI: 18,5). In this study, there was no data on pre-pregnancy weight that could be used to calculate the actual body mass index. There is also no data on upper arm circumference that can also be used as a reference to assess maternal nutritional status.

Most (90.63%) used National Health Insurance financing, while the remaining (9.27%) cases came at their own expense and financed with private insurance. This is very good because it reduces the risk of not being able to pay for health services when there is a maternal and/or perinatal emergency.

Pregnancy with high blood pressure, especially preeclampsia, has a risk of vaginal delivery or by cesarean section. A total of 51 (79.69%) cases were born by cesarean section and 13 (20.31%) were born vaginally. There were no cases of pregnancy with high blood pressure that gave birth by means of vacuum extraction or forceps extraction. A study of 500 cases of severe preeclampsia in Brazil during 2009-2010 was performed by cesarean section in 68%.

There were also no maternal deaths found in pregnancies complicated by high blood pressure, in fact all of them went home in good condition. This is because all cases of pregnancy with complications of high blood pressure are not accompanied by impaired function of other organs. This condition also causes the length of hospitalization after delivery and after cesarean section is not long. Only 6 (9.37%) cases were treated for more than 5 days. Even cases that experienced spontaneous vaginal delivery 3 (4.69%) were discharged on the first day.

IV. CONCLUSION

Although most (62.5%) cases of pregnancy with complications of Preeclampsia are aged 35 years, quite a lot (37.5%) cases are over 35 years old, in fact there are 6.25% aged 40 years and over. In addition, there is also 1 case who is 15 years old and unmarried. There were 32.82% of cases were the fourth pregnancy or more (grande multipara). In fact, there are 1.56% of cases of pregnancy in the sixteenth.

The age of pregnant women was mostly 84.12% of cases with term gestational age, and 35.94% of cases of Preeclampsia with severe features, and 1 case of eclampsia was found. Most (89.06%) had a body mass index above normal (over weight and obesity). A total of 93.75% used the financing of the National Health Insurance, and 79.69% were born by cesarean section. There were no maternal deaths, but 5 (7.81%) infants with IUGR, 1 (1.56%) severe asphyxia, and 3 (4.69%) died.

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