THE OVERVIEW OF HEMOGLOBIN LEVELS IN TRIMESTER III PREGNANT WOMEN AT THE KENANGA POLYCLINIC AND MATERNITY HOSPITAL

Restiani Alia Pratiwi, Delyan Eryandi, Andini Kusdiantini
Health Analyst, Piksi Ganesha Polytechnic, Bandung, Indonesia

Abstract

Anemia in pregnancy is a condition in which the mother has a hemoglobin level below 11 gr/dl. The purpose of this research for knowing the description of the hemoglobin level from third trimester pregnant women at the Kenanga Polyclinic And Maternity Hospital. That used descriptive type with a cross sectional design and sampling used 30 people's respondent's. The results showed 18 samples (60%) was abnormal hemoglobin levels and 12 samples (40%) was normal hemoglobin levels. From 30 pregnant's women is 23 heavy workers (workers) which 15 people (65.2%) were normal and 8 people (34.8%) were not normal. Meanwhile 7 light workers (housewives) there are 6 people (85.7%) were normal and one person (14.3%) was abnormal or anemic.

Keywords: Hemoglobin level, Anemia, Third Trimester Pregnant Women, Kenanga Polyclinic and Maternity Hospital

Introduction

The incidence of anemia or lack of blood in pregnant women in Indonesia is still relatively high, namely as much as 48.9% (according to the Indonesian Ministry of Health in 2019). This condition indicates that anemia is quite high in Indonesia and shows a rate close to a severe public health problem with an anemia prevalence limit of more than 40% (Ministry of Health RI, 2013).

Meanwhile, data from the West Java Provincial Health Office shows that the prevalence of preeclampsia among pregnant women in West Java Province is 63,246 pregnant women. While the prevalence of anemia for pregnant women in Bekasi Regency in 2016 was 10% of 768,324 pregnant women, the Cikarang Health Center had the most problems with anemia in pregnant women out of 44 health centers in Bekasi Regency (Marry, 2017). Data from the Cikarang Health Center in Bekasi Regency in 2016 showed that the prevalence of anemia at the Cikarang Health Center was 37.3%, with a total of 472 pregnant women. Although the prevalence of anemia in pregnant women in Bekasi Regency is still lower than the national prevalence, the prevalence of anemia in pregnant women in the Cikarang Health Center is higher than the national prevalence.

Anemia that occurs in the third trimester tends to be more due to the need for iron, which increases according to gestational age while iron stores in the body are insufficient, so that many pregnant women in the third trimester experience iron deficiency anemia unless they are given iron supplements. One-third of cases of anemia in pregnancy occur in the third trimester. Anemia occurs because the concentration of hemoglobin decreases, especially at gestational age ≥ 36 weeks.

At this time, the need for iron increases so that the fetus can store iron reserves for itself as a supply for the first month after birth. Anemia at gestational age ≥ 36 weeks will also cause difficulties for the mother when giving birth, such as when the uterus does not contract properly and gets tired of pushing quickly. Likewise, when labor is over, it will be difficult for the mother's uterus to contract and return to its normal size (Sinsin, 2008).
One of the elements of the service is the provision of blood supplement tablets of at least 90 tablets (Fe3) during pregnancy. Iron is a mineral needed by the body to form red blood cells (hemoglobin). In addition, iron also plays a role as a component in forming myoglobin, a protein that carries oxygen to muscles; collagen, a protein found in bones, cartilage, and connective tissue; and enzymes (Ministry of Health RI, 216:108).

The Kenanga Polyclinic and Maternity Hospital is a clinic with complete health facilities in Bekasi Regency, located in Cikarang Selatan District, Bekasi Regency. Based on survey results obtained from polyclinics and maternity homes,

there are 30 third- trimester pregnant women who are at risk of developing iron deficiency anemia, which has not been identified, and other causative factors, one of which is that there are many pregnant women in this area who are still productive at work. Based on the description above, the authors are interested in knowing about anemia in third-trimester pregnant women at the Kenanga Polyclinic and Maternity Hospital, especially in terms of hemoglobin levels.

Methods

The subjects of this study were third-trimester pregnant women with gestational age ≥ 36 weeks, a total of 30 pregnant women. This research was conducted at the Kenanga Cikarang Bekasi Polyclinic and Maternity Hospital from December 2022 to February 2023. This type of research was conducted using a descriptive method. Descriptive research is a research method that is carried out to make a picture or describe a situation objectively (Notoatmodjo, 2010).

This study observed the characteristics of pregnant women in the third trimester. According to Arikunto (2017: 173), the sample is part of the number and characteristics possessed by the population. Sampling in this study was done by total sampling, which is a sampling method where the number of samples is the same as the population (Sugiyono, 2007). Because the total population was less than 100, the entire population was used as a research sample, namely 30 third- trimester pregnant women who had their Hb levels checked at the Kenanga Polyclinic and Maternity Hospital.

Results and Discussion

Anemia is directly affected by the consumption of daily foods that lack iron. Anemia also occurs due to an increase in the need for iron in a person's body, such as during menstruation, pregnancy, or childbirth, while the iron intake is small. In general, food consumption is closely related to nutritional status. If the food consumed has good nutritional value, then the nutritional status is also good; conversely, if the food consumed has less nutritional value, it can cause malnutrition. So it is very important to pay attention to food intake and the nutrients it contains (Ministry of Health, 2014).

The large number of third-trimester pregnant women with low hemoglobin resulted in this study because the majority of respondents were third- trimester pregnant women aged between 20 and over 35 years. According to the theory, preeclampsia is more common in the early and late reproductive years, namely adolescents between 15 and 35 years old (Cunningham, 2001).

Based on table 1, of the 30 blood samples of the respondents who were examined, it was found that the samples (60%) had abnormal hemoglobin levels and 12 samples (40%) had normal hemoglobin levels. This is in line with the fact that pregnant women in the third trimester of pregnancy at the Kenanga Polyclinic and Maternity Hospital experience anemia, which is in accordance with WHO provisions for hemoglobin levels in pregnant women of 9.5 to 15.0 g/dl.

Table 1. Frequency Distribution Of Hemoglobin Levels In Third Trimester Pregnant Women At Kenanga Polyclinic And Maternity Hospital In 2023

Hemoglobin	Frequency	Percentage
Normal	12	40
Abnormal	18	80
Total	30	100

Based on table 2, the results obtained from 30 pregnant women from 23 heavy workers (workers) examined showed that 15 people (65.2%) were normal and 8 people (34.8%) were abnormal. Of the 7 light workers (housewives) who were examined, the results were 6 people (85.7%) who were normal and 1 person (14.3%) who were abnormal or anemic. This shows that physical activity affects hemoglobin levels in pregnant women, and the lack of iron intake through food causes Hb levels in pregnant women to decrease. Because getting older is also more susceptible to an

increase in the incidence of hypertension, people face a greater risk of suffering from hypertension because, with age, the flexibility of blood vessels will decrease, which can cause blood pressure to increase more easily (Hartanti & Mifbakhuddin, 2015). In addition, diabetes mellitus and diabetes mellitus are factors that cause preeclampsia. So women who are at the beginning or end of reproductive age are more susceptible to suffering from preeclampsia (Rachimhadhi, 2008).

TABLE 2. FREQUENCY DISTRIBUTION OF HEMOGLOBIN LEVELS IN THIRD TRIMESTER PREGNANT WOMEN BASED ON PHYSICAL ACTIVITY OF PREGNANT WOMEN AT KENANGA POLYCLINIC AND MATERNITY HOSPITAL IN 2023

Physical Activity	N	%	n	%	N	%
Heavy	15	65.2	8	34.8	23	100
Light	6	85.7	1	14.3	7	100
Total	21	70	9	30	30	100

One effort to reduce the rate of anemia in pregnant women is the provision of iron, because for pregnant women, iron is needed to meet basal losses. In addition, iron is needed for the formation of more and more red blood cells for the needs of the fetus and the placenta.

As the gestational age increases, more iron is needed, thus the risk of iron anemia is greater. To prevent this incident, the need for iron tablets must be met.
This study illustrates that 80% of pregnant women who experience anemia from these results need to prevent cases of anemia in pregnant women so that the number of pregnant women who experience anemia does not increase by giving iron supplements or Fe tablets to pregnant women and eating nutritious food. contain iron.

Conclusion

Anemia in pregnancy is still an important factor for anticipating mortality in pregnant women, especially in the third trimester, where anemia at this age is still relatively high and there is a significant relationship between work activity and low hemoglobin levels, especially in the Kenanga Cikarang Polyclinic area, where the majority of pregnant women are heavy workers.

This is in accordance with the theory presented by Waryana (2010) and research conducted by Dwi Rohmi in 2009 that, in addition to consuming iron, hemoglobin levels in pregnant women are affected by the relationship between the level of adherence of mothers consuming Fe and increased hemoglobin levels.

Suggestion

Based on the above conclusions, the researchers suggest conducting further and in-depth research on the description of hemoglobin levels in third-trimester pregnant women with severe respondent characteristics.

References

Abdul Muthalib. (2010) Kelainan Hematologik. Dalam: Prawirohardjo, S. Ilmukebidanan. Edisi Ke-4. Jakarta: PT Bina Pustaka.

Astuti, R. Y. dan Ertiana, D.(2018). Anemia dalam Kehamilan. Jawa Timur: Pustaka Abadi Evelyn, (2013).Anatomi dan Fisiologis untuk Paramedis.Gramedia.

Gandasoebrata R. (2013). Penuntun Laboratorium Klinis. Jakarta. Dian Rakyat Guyton, Arthur . (2008) . Fisiologi Kedokteran. Edisi 11. Jakarta.

EGC. Hardjoeno,(2005) dkk. Interpretasi Hasil Tes Laboratorium Diagnostik. Jakarta. Badan Penelitian dan Pengembangan Kesehatan Departemen Kesehatan RI.

Laporan Nasional Riset Kesehatan Dasar 2020 (RISKESDAS).Kemenkes RI. Profil Kesehatan Indonesia tahun 2020. Jakarta : Kemenkes RI Arikunto S.Manajemen Penelitian. (Delfia Rizka.2019). Gambaran Hb pada ibu hamil Trimester III di RSUD dr. Jakarta: Rineka Cipta. p.127

Allen H. Anemia and Iron deficiency : Effect on pregnancy Effect 2000 American Journal of clinical Nutritions.ol 71, No 5.1280S.1284s: 2007 Terdapat pada : http: : www.ajcn.org/content/71/5/1280S.f ull. Diakses pada tanggal 23 April 2023

Amiruddin. (2014). Anemia Defisiensi Zat Besi pada Ibu Hamil di Indonesia. UNHAS. Terdapat Pada https://www.scribd.com/upload-document. Ananya, M. (2017). Diakses pada tanggal 10 Mei 2023

Edmundson, A. (2013, May). Memahami Anemia. Retrieved Februari 2013, Terdapat pada WebMD: http://www.webmd.com/a-to-z- guides/understanding-anemia-basics. Diakses pada tanggal 10 Mei 2023.