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CASE STUDY OF PRIMIGRAVIDIANS IN THE SECOND TRIMESTER WITH ANEMIA AT THE TOGGUH PUBLIC HEALTH CENTER, BANGKALAN REGENCY

Tasya Frescilia Syafitri Wahid Suryaningsih[1], Siti Anisak[2]
[(1,2)]Surabaya Ministry of Health Polytechnic, Midwifery Department, D3 Midwifery Study Program, Bangkalan
*E-mail:*tasyafrescilia5@gmail.com

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Keywords:
primigravida, anemia, signs and symptoms, management.

Abstrak

Berbagai masalah sering terjadi pada ibu hamil trimester II yaitu anemia, anemia merupakan suatu kondisi dimana jumlah sel darah merah atau konsentrasi hemoglobin didalamnya lebih rendah dari biasanya. Studi kasus ini bertujuan untuk mengetahui tanda dan gejala anemia, faktor resiko pada anemia, dampak anemia serta penatalaksanaan dari anemia.Metode dalam studi kasus ini menggunakan rancangan multiple case design. Adapun subjek studi kasus ini menggunakan dua ibu hamil dengan kriteria yang sama yaitu primigravida trimester II dengan anemia. Studi kasus dilakukan di desa karang duwek kecamatan arosbaya. Metode pengumpulan data dengan wawancara menggunakan kusioner dan dokumentasi buku KIA. Analisa berupa data deskriptif. Hasil studi kasus ini bahwa tanda dan gejala anemia pada kedua responden yaitu sering mengalami mudah Lelah, tekanan darah tidak normal dan pusing. Faktor resiko pada primigravida trimester II yaitu responden 1 tidak didapatkan faktor resiko, sedangkan pada responden 2 yaitu usia. Dampak pada primigravida trimester II dengan anemia tidak didapatkan pada kedua responden. Penatalaksanaan pada primigravida trimester II dengan anemia yaitu kedua responden telah diberikan tablet Fe, akan tetapi pada responden ke 2 tidak teratur dalam mengomsumsi tablet Fe karena merasa malas, serta telah diberikan KIE tentang anemia dan makanan tinggi zat besi. Untuk menurunkan angka kematian ibu dan anak maka diperlukan pencegahan salah satunya terjadinya anemia kehamilan. Pencegahan anemia bisa dilakukan dengan cara mengonsumsi tablet Fe secara teratur dan mengonsumsi makanan kaya zat besi, serta melakukan ANC rutin.

Kata kunci: primigravida, anemia, tanda dan gejala, penatalaksanaan.

Keywords:
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ABSTRACT

Various problems often occur in second trimester pregnant women, namely anemia, anemia is a condition where the number of red blood cells or hemoglobin concentration in it is lower than normal. This case study aims to determine the signs and symptoms of anemia, risk factors for anemia, the impact of anemia and the management of anemia. The method in this case study uses a multiple case design. The subjects of this case study used two pregnant women with the same criteria, namely second trimester primigravida with anemia. The case study was conducted in Karang Duwek village, Arosbaya sub-district. Data collection methods with interviews using questionnaires and maternal and child health book documentation. Analysis in the form of descriptive data. The results of this case study that the signs and symptoms of anemia in both respondents are often experiencing easy fatigue, abnormal blood pressure and dizziness. Risk factors in second trimester primigravida, namely respondent 1, were not found risk factors, while in respondent 2, namely age. The impact on second trimester primigravida with anemia was not found in both respondents. Management in

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second trimester primigravida with anemia is that both respondents have been given Fe tablets, but the 2nd respondent is not regular in taking Fe tablets because she feels lazy, and has been given IEC about anemia and foods high in iron. To reduce maternal and child mortality, prevention is needed, one of which is the occurrence of pregnancy anemia. Prevention of anemia can be done by taking Fe tablets regularly and eating iron-rich foods, and conducting routine antenatal care.

Keywords:*primigravida, anemia, signs and symptoms, management.*

INTRODUCTION

Pregnancy lasts approximately 40 weeks from ovulation to delivery, but no more than 43 weeks (Mail, 2020). Pregnancy is divided into trimesters I, II, and III. The first trimester lasts from conception to week 12, the second trimester from week 13 to week 28, and the third trimester from week 28 to week 40 (Siti Nur Aini and Juli Selvi Yanti, 2021).

Various problems often occur in pregnant women in the second trimester, including anemia. Anemia is a condition in which the number of red blood cells or hemoglobin concentration is lower than normal. Anemia can occur in anyone, including pregnant women. Pregnant women are considered anemic if their Hb level is less than 11.00 g%. In the first trimester, it is considered anemic if the Hb level is <11.00 g%, and in the second and third trimesters it is <10.50 g% (Irdan and Herman, 2020).

The 2018 Indonesian Basic Health Research data shows that the percentage of pregnant women in Indonesia who experience anemia is 48.9%. Based on data from the East Java Provincial Health Office, the lowest percentage of pregnant women experiencing anemia is 1.7%. Based on data from the Tongguh Community Health Center in January 2024, 40% of 40 pregnant women experienced anemia, or a total of 16 people, with details of 9 primigravida pregnant women and 7 multigravida pregnant women. The rate of anemia in pregnant women at the Tongguh Community Health Center is higher in primigravida pregnant women, this is in line with research conducted by Sagita in 2021 which stated that anemia in primigravida occurs in 60-80% while 40-60% in multigravida.

The cause of anemia in pregnant women is iron deficiency (iron deficiency anemia) which affects the lack of iron intake in food, impaired iron absorption, consumption problems or because of the large amount of iron that leaves the body so that there can be a lack of red blood cell production or the

destruction of red blood cells that is faster than normal (Frisca Dewi Yunadi, Rochany Septiyaningsih, Rully Andhika, 2019)

Primigravida pregnancies can be at risk for anemia. One risk factor for primigravida mothers in the second trimester is their lack of experience in maintaining a healthy pregnancy, as this is their first pregnancy (Permatasari, Farida, and Widiyanto, 2020).

Furthermore, the underlying causes of anemia in pregnancy are largely social, economic, knowledge, education, and cultural. Frequency of antenatal care (ANC) checkups, maternal age and parity, and husband's support are indirect causes. Consumption habits, infections, and bleeding are examples of indirect causes (Natalia, Yuwansyah, and Setiawati, 2022).

Symptoms often experienced by pregnant women with anemia include increased heart rate and breathing as the tissues struggle to supply oxygen, resulting in dizziness, fatigue, pale skin, nausea, and decreased hair and skin quality (Maywati and Novianti, 2021).

In addition, symptoms experienced by primigravida pregnant women with anemia include discomforts such as preeclampsia, hypertension, shortness of breath, sleep disturbances, and the risk of bleeding during delivery. Meanwhile, adverse effects on the fetus include low birth weight (LBW), IUGR, and premature birth (Sari, Yarmaliza, and Zakiyuddin, 2022).

Some of the effects of anemia on infants include low birth weight (LBW), intrauterine growth restriction (IUGR), premature birth, fetal death, and postpartum fetal death (Farhan and Dhanny, 2021). Meanwhile, the impact of anemia on pregnant women can affect the second trimester, leading to premature labor and antepartum bleeding such as placental abruption and placenta previa (Minasi et al., 2021).

Management carried out by health workers to address cases of anemia in pregravid pregnant women in the second trimester involves administering iron supplements, with a daily dose of one tablet containing 60 mg of elemental iron and 0.25 µg of folic acid for a minimum of 90 days during pregnancy (Devi, Lumentut, and Suparman, 2021). Providing health education during antenatal care is expected to improve the prevention of anemia complications in pregnant women (Sulastri, 2022).

The government's efforts to address this issue are realized in the provision of

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Antenatal Care (ANC) at least 5 times during pregnancy (K6), this service includes adding at least 90 iron-boosting tablets during pregnancy and conducting simple laboratory tests such as hemoglobin (HB) tests (Asmin et al., 2021).

METHOD

Methods: This case study was conducted in the Tongguh Community Health Center, Bangkalan Regency, from March to May 2024. It used a multiple case study with two primigravida respondents with anemia as subjects. This case study was descriptive qualitative with a case study approach. Data collection used a questionnaire with interview, observation, and documentation study techniques.

RESULTS

A. Signs and symptoms of second trimester primigravida with anemia

Table 3.1 Signs and symptoms of second trimester primigravida with anemia

Signs and symptoms	Respondent 1	Respondent 2
Out of breath	Mother did not experience shortness of breath during this pregnancy.	Mother did not experience shortness of breath during this pregnancy.
Easily Tired	Mothers get tired easily when doing housework, such as sweeping, washing clothes, etc.	Mothers get tired easily when they do housework, such as sweeping, washing clothes, etc.
Dizzy	Mother often experiences dizziness	Mother often experiences dizziness
Pale conjunctiva	When the mother's conjunctiva was examined, it was not pale.	When the mother's conjunctiva was examined, it was not pale.
Blood pressure (90/64 mmHg)	Abnormal	
(98/60 mmHg)	Abnormal	

Source: Primary Data Collection 2024

B. Risk factors for anemia in primigravida with anemia

Table 3.2 Risk factors for anemia in primigravidas with anemia

Risk factors	Respondent 1	Respondent 2
Age	23 year old mother	17 year old mother

Source: primary data collection 2024

C. The impact of pregnant women with anemia

Table 3.3 Impact of anemia on pregnant women

Impact	Respondent 1	Respondent 2
Antepartum Hemorrhage	No	No

Source: primary data collection 2024

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D. Management of second trimester primigravida with anemia

Table 3.4 Management of second trimester primigravida with anemia

Management	Respondent 1	Respondent 2
Giving iron tablets during pregnancy	The mother was given 90 Fe tablets by the midwife at the Tongguh Community Health Center, to be consumed regularly once before bed.	The mother was given 90 Fe tablets by the midwife at the Tongguh Community Health Center, but she did not consume them.
IEC on anemia	The mother has been given IEC about anemia.	The mother has been given IEC regarding anemia.
IEC high iron foods	The mother has been given education by the midwife at Tongguh Community Health Center regarding foods high in iron (vegetables, meat, fruit, etc.)	The mother has been given education by the midwife at Tongguh Community Health Center regarding foods high in iron (vegetables, meat, fruit, etc.)
Source: Primary data 2024		
Management	Respondent 1	Respondent 2
Amenorrhea	Consult a midwife	Consult a midwife
Weight gain	Accepting side effects	Accepting side effects
Amenorrhea education	One of the side effects	One of the side effects that occurs
Weight gain education	that occurs in progestin injection contraceptive acceptors Maintain a diet and do exercise	in progestin-only injectable contraceptive acceptors Maintain a diet and do exercise
Meal frequency	3 times	3 times
Food composition	Rice, vegetables, fish	Rice, vegetables, fish
Snacks	Eat snacks often	Eat snacks often

Primary data source 2024

DISCUSSION

A. Signs and symptoms of primigravida with anemia

It was obtained from the data produced that both primigravida pregnant women with anemia had the same signs and symptoms of anemia, namely easily getting tired when doing housework such as sweeping, washing clothes, dizziness during the day and easily getting tired which was caused by anemia.

This aligns with the statement by Tambun, Hartinah, Friscila, & Fitriani (2024), who stated that fatigue is generally caused by pregnancy. Furthermore, Wahyunita et al. (2024) stated that anemia can cause low blood pressure, which is also characterized by dizziness.

Although both respondents had anemia, they did not experience significant symptoms, only experiencing fatigue during activities and dizziness. This was because

their mothers' hemoglobin levels were still quite good despite their anemia. The symptoms experienced by mothers will depend on their hemoglobin levels, so the lower their hemoglobin levels, the more severe the symptoms they will experience.

B. Risk factors for anemia in primigravida with anemia

.1 Age

Obtained from the data generated on respondent 1 with a safe age, namely age over 20 years. Respondent 1 is 23 years old.

This is not in line with the statement (Sari, Fitri and Dewi, 2021) which states that the ideal age for a mother to become pregnant is between 20 and 35 years old, because it has healthy reproduction and a low risk of complications.

Therefore, a healthy reproductive age does not rule out the possibility of anemia, but it can be caused by other factors, including iron deficiency. A lack of iron in the body causes a decrease in the number of red blood cells, or hemoglobin, and prevents them from functioning properly. Red blood cells in the body are formed from iron, so the body needs hemoglobin in red blood cells to bind and carry oxygen to all organs.

Meanwhile, respondent 2 was found to be in an unsafe age range, namely those under 20 years old. Respondent 2 was found to be 17 years old.

This is in line with the statement from Ermawati (2024), younger pregnant women have a higher risk of developing anemia due to factors such as lack of physiological maturity and knowledge about adequate nutrition during pregnancy.

This shows that being under 20 years old can cause anemia, because at that age the mother's health and growth, development of the fetus and the reproductive organs are not yet mature enough for pregnancy.

2. knowledge

The results of the study showed that both pregnant women with primigravida with anemia did not know about anemia and the importance of consuming Fe tablets.

This is in line with the statement(Devi, Lumentut and Suparman, 2021)who said that pregnant women with less knowledge tend to ignore their health and can do things that accidentally harm themselves and their fetus.

And also in line with the statement from(Made Ayu Yulia Raswati Teja et al., 2021)which says, pregnant women who have less knowledge about anemia can result in less consumption of foods containing iron during pregnancy due to their ignorance, so knowledge about anemia is important for pregnant women to know.

Lack of knowledge can cause anemia because with knowledge, mothers will have a better way of thinking in choosing the right foods to prevent anemia, such as meat, green vegetables, fruit, and can avoid foods that can inhibit the iron absorption process.

3. Income

It was found that two primigravida pregnant women with anemia with incomes above the minimum wage experienced anemia.

This is not in line with Ermawati's statement. (2024)which states the importance of a combination of adequate income and sound knowledge of budget management to ensure adequate nutritional intake, particularly to reduce the risk of anemia. This approach recognizes that even though an individual or family may have sufficient financial resources, without a good understanding of how to allocate those resources to meet nutritional needs, the risk of anemia and other health problems remains high.

Therefore, both primigravida pregnant women with anemia have good income, but both of them have anemia, this shows that the good income factor is not an indirect cause of anemia but is caused by other factors, namely the mother's compliance in consuming iron tablets, as well as the mother's knowledge about anemia.

C. The impact of anemia on primigravida in the second trimester

Based on the data obtained regarding the impact of anemia, the two pregnant women with primigravida with anemia did not experience the impact of anemia, such as antepartum bleeding and IUGR.

This research is not in line with the statement from (Sohimah and Yunadi, 2021) which states that mothers with Hb levels less than 11 gr/dl have a risk of bleeding 1.867 times greater than mothers with normal/non-anemic Hb and will reduce the body's metabolic ability, thereby disrupting the growth and development of the fetus in the womb.

It was found that the two primigravida pregnant women with anemia did not experience the effects of anemia, therefore the mothers had fulfilled their nutritional

needs such as consuming foods rich in iron, especially foods from animal sources that are easily absorbed, such as liver, meat, fish, and consuming foods rich in vitamins C and A for iron absorption and Hb formation, so the mothers did not experience these effects.

D. Management of primigravida with anemia

1. Providing Iron Supplements

Based on the data obtained, respondent 1 has received anemia management, namely the administration of Fe tablets, and the correct way to consume them is to take Fe tablets once at night before going to bed.

This is in line with the statement from(Yuanti, 2020)which states that iron is an essential substance for the body to increase the number of red blood cells (Hb), which is needed to prevent or treat anemia. Taking iron tablets during pregnancy is one way to address iron deficiency in pregnant women.

This shows that giving Fe (iron) tablets to primigravida mothers in the second trimester who experience anemia, as was done at the Tongguh Health Center, Bangkalan Regency, aims to fulfill iron intake, because during pregnancy the need for iron increases and also to prevent anemia during pregnancy.

Meanwhile, respondent 2 had received the correct management of anemia, namely the administration of Fe tablets, however, the mother never took Fe tablets during her pregnancy because the mother felt lazy.

This is in line with the statement from(Izzati, Tamtomo and Rahardjo, 2021)The success of iron tablet administration depends on the compliance of pregnant women in taking them. High iron tablet coverage does not reduce anemia if adherence to iron tablet consumption is low.

Therefore, giving tabletsIron in the second trimester of primigravida pregnancy is very important. Pregnant women who do not regularly consume Iron tablets will trigger anemia during pregnancy.

2. Education about anemia and iron-rich foods

Results were obtained on bothPrimigravida pregnant women with anemia have received anemia management, including education about anemia and iron-rich foods. This is in line with a statement from(Sulaiman et al., 2022)who said that nutritional education plays an important role in increasing the

consumption of iron-rich foods, and this can contribute significantly to the management of anemia during pregnancy.

Educating pregnant women can improve their understanding of anemia, its signs and symptoms, impacts, management, and prevention. This can help them understand the importance of education during pregnancy..

CONCLUSION

This case study aims to find outsigns and symptoms of anemia, risk factors for anemia, the impact of anemia on primigravida, and anemia management. Based on the results and discussion, the signs and symptoms found in the two second-trimester primigravida respondents with anemia were easily tired, abnormal blood pressure, and dizziness. There are risk factors for anemia in the second-trimester primigravida in respondent 1, there were no risk factors for anemia in pregnancy. While in respondent 2, there was an age factor. In both respondents observed, there was no impact on second-trimester pregnancy with anemia. In both respondents, anemia management in the second-trimester primigravida with anemia was received, namely respondent 1 had been given Fe tablets, consumed regularly once before bed, while respondent 2 had been given Fe tablets but not consumed because the mother felt lazy. In addition, both respondents had been given IEC about anemia and iron-rich foods.

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