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# CASE REPORT: PREGNANCY AT 29-30 WEEKS OF GESTATION IN A GRANDEMULTIPAROUS WOMAN WITH CHRONIC ENERGY DEFICIENCY AND ANEMIA

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**ABSTRACT**

Grandemultiparity, Chronic Energy Deficiency (CED), and anemia increase the risk of maternal and fetal complications and require comprehensive midwifery care. This case report aimed to describe the implementation of comprehensive midwifery care for a pregnant woman with grandemultiparity, CED, and anemia. Method: This report used a case report method with a midwifery care documentation approach using the SOAP format. The subject was Mrs. M (G4P30002) at 29–30 weeks of gestation at an Independent Midwifery Practice in Magetan Regency. Data were collected through history taking, physical examination, supporting examinations, documentation, and evaluation during three visits. Results and Discussion: The assessment showed that Mrs. M had grandemultiparity, CED, and anemia with a body weight of 45 kg, a body mass index of 17.9 kg/m$^2$, a mid-upper arm circumference of 21 cm, and a hemoglobin level of 9.5 g/dL. Midwifery care included nutrition education, iron supplementation and monitoring, maternal and fetal monitoring, education on pregnancy danger signs, and psychological support. After three visits, her condition improved, with body weight increasing to 48 kg, body mass index to 19.2 kg/m$^2$, mid-upper arm circumference to 21.5 cm, and hemoglobin level to 10 g/dL. Fatigue decreased, appetite improved, and both mother and fetus remained in good condition. Conclusion and Suggestion: Comprehensive midwifery care contributed to improving the mother's health condition. Pregnant women are encouraged to attend routine antenatal care, take iron supplements as recommended, maintain adequate nutrition, and adopt a healthy lifestyle to prevent pregnancy complications.

**Keywords**: Case Report; Grand Multiparity; Pregnant Woman; Chronic Energy Deficiency; Anemia.

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## INTRODUCTION

### Background

Pregnancy in grandemultiparous women requires special attention because repeated pregnancies and deliveries may affect maternal nutritional status and increase the risk of anemia and other pregnancy complications. Chronic Energy Deficiency (CED) is characterized by inadequate energy and nutrient intake over a prolonged period and may contribute to poor maternal and fetal outcomes. In this case, a pregnant woman at 29–30 weeks of gestation was identified as grandemultiparous with CED, indicated by a mid-upper arm circumference (MUAC) of 21 cm, and anemia with a hemoglobin level of 9.5 g/dL. These conditions require continuous antenatal monitoring, nutritional counseling, iron supplementation, and monitoring of maternal and fetal well-being. Appropriate and comprehensive midwifery care is therefore essential to

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prevent further complications and support improvements in maternal nutritional status and hemoglobin levels during pregnancy.

Grandemultiparity, Chronic Energy Deficiency (CED), and anemia are important risk factors during pregnancy that require continuous monitoring and appropriate midwifery care. Repeated pregnancies may affect the mother's nutritional status and increase the risk of anemia and other pregnancy complications (Zunaidi & Nasyuha, 2022). The case involved a 29–30-week pregnant woman with a history of grandemultiparity, CED indicated by a mid-upper arm circumference (MUAC) of less than 23.5 cm, and anemia with a hemoglobin level below the normal range. This combination of risk factors requires comprehensive antenatal care, including nutritional monitoring, iron supplementation, and regular monitoring of maternal and fetal conditions (Resmaniasih et al., 2024). Therefore, this case report aims to describe the condition and midwifery management of a grandemultiparous pregnant woman with CED and anemia during the third trimester.

**Goal**

This case report aims to provide a comprehensive description of the pregnancy condition and midwifery management of a grandemultiparous woman at 29–30 weeks of gestation with Chronic Energy Deficiency (CED) and anemia. The report focuses on identifying maternal conditions and risk factors through systematic assessment, including subjective and objective data, nutritional status, hemoglobin level, maternal complaints, and fetal condition.

Furthermore, this case report aims to analyze the problems identified during pregnancy and determine appropriate midwifery care based on the maternal condition. The management includes nutritional counseling, monitoring of maternal and fetal well-being, evaluation of iron tablet adherence, monitoring of nutritional status and hemoglobin levels, education regarding pregnancy danger signs, and continuous antenatal care.

Through comprehensive and continuous care, this report also aims to evaluate changes in the mother's condition during the monitoring period, particularly improvements in nutritional status, maternal complaints, body weight, mid-upper arm circumference (MUAC), and hemoglobin level. The findings are expected to illustrate the importance of early identification, appropriate intervention, and continuous monitoring in managing high-risk pregnancies involving grandemultiparity, CED, and anemia.

Overall, this case report is expected to contribute to the development of midwifery practice by providing a practical description of comprehensive antenatal care for pregnant women with multiple risk factors and emphasizing the importance of individualized care to support maternal and fetal well-being.

**METHODS**

This study used a **descriptive case report design** to provide a detailed description of the clinical condition, complaints, risk factors, midwifery interventions, and maternal responses to the care provided. The case report focused on a pregnant woman with grandemultiparity, Chronic Energy Deficiency (CED), and anemia and was conducted in an independent midwifery practice (PMB) in Magetan Regency.

The subject was **Mrs. M, G4P30002**, at 29–30 weeks of gestation, who was diagnosed with grandemultiparity, CED, and anemia. Initial assessment showed a body weight of 45 kg, Body Mass Index (BMI) of 17.9 kg/m$^2$, mid-upper arm circumference (MUAC) of 21 cm, and hemoglobin level of 9.5 g/dL. Data were collected through **anamnesis, physical examination, anthropometric measurements, supporting examinations, observation, documentation, and evaluation** during three antenatal visits.

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The collected data were analyzed to identify maternal conditions, midwifery diagnoses, and problems requiring intervention. Midwifery care was then planned and implemented according to the patient's needs, including nutritional counseling, monitoring of maternal and fetal conditions, evaluation of iron tablet consumption, education regarding pregnancy danger signs, and psychological support. The patient's progress was evaluated continuously to assess the response to the interventions provided.

All stages of midwifery care were systematically documented using the **SOAP (Subjective, Objective, Assessment, and Planning) format**. Ethical considerations were also applied by obtaining informed consent from the patient, explaining the purpose and procedures of the case report, and maintaining the confidentiality of the patient's identity and personal data.

## RESULTS

The case of Mrs. M demonstrated the coexistence of grandemultiparity, Chronic Energy Deficiency (CED), and anemia during the third trimester of pregnancy. The initial MUAC of 21 cm and hemoglobin level of 9.5 g/dL indicated nutritional and hematological problems requiring continuous monitoring and comprehensive midwifery care.

The management included nutritional counseling, recommendations for adequate iron-rich food intake, regular iron supplementation, monitoring of body weight, MUAC and hemoglobin levels, as well as maternal and fetal assessment. These interventions were consistent with the management recommended for pregnant women with CED and anemia.

After three visits, the mother's condition showed improvement, with body weight increasing from 45 kg to 48 kg, MUAC from 21 cm to 21.5 cm, and hemoglobin from 9.5 g/dL to 10 g/dL. Her complaints of fatigue and dizziness also decreased. These findings were consistent with Resmaniasih et al. (2024), which reported that comprehensive midwifery care involving nutritional monitoring, hemoglobin assessment, nutritional education, and iron supplementation could improve the condition of pregnant women with CED and anemia. Although the mother's condition improved, the hemoglobin level had not yet reached the normal level of ≥11 g/dL. Therefore, continued nutritional management, iron supplementation, and antenatal monitoring are still necessary. The improvement should be interpreted as the result of comprehensive care, maternal adherence, and family support rather than the effect of a single intervention.

## DISCUSSION

The present case involved Mrs. M, G4P30002, at 29–30 weeks of gestation with three important pregnancy risk factors, namely grandemultiparity, Chronic Energy Deficiency (CED), and anemia. At the initial assessment, the mother had a body weight of 45 kg, a BMI of 17.9 kg/m$^2$, a mid-upper arm circumference (MUAC) of 21 cm, and a hemoglobin level of 9.5 g/dL. She also complained of fatigue, dizziness, weakness, and decreased appetite. The combination of these findings indicates that the mother's nutritional and hematological conditions required comprehensive and continuous antenatal monitoring. Grandemultiparity is an important consideration in this case because repeated pregnancies and deliveries may be associated with increased maternal nutritional requirements and a greater need for monitoring during pregnancy. In Mrs. M's case, grandemultiparity occurred together with CED and anemia, creating a more complex maternal condition. The literature included in the case report explains that repeated pregnancies may contribute to decreased maternal nutritional reserves when nutritional intake is inadequate. This condition may subsequently be associated with CED and anemia and increase the potential risk of maternal and fetal complications.

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The nutritional condition of Mrs. M was indicated by a MUAC of 21 cm and a BMI of 17.9 kg/m$^2$. The MUAC measurement was below the 23.5 cm threshold used in the case report to identify CED. This finding was also accompanied by decreased appetite and weakness. Therefore, the nutritional problem in this case was not considered only from a single anthropometric measurement, but was interpreted together with the mother's complaints and overall clinical condition. The literature cited in the case report indicates that pregnant women with low nutritional status are at greater risk of anemia and adverse pregnancy outcomes. Anemia was another important problem identified in the case. The initial hemoglobin level of 9.5 g/dL was below the normal pregnancy target, and the mother experienced fatigue, dizziness, and weakness. The coexistence of CED and anemia is clinically important because inadequate nutritional intake may reduce the availability of nutrients required for maintaining maternal health and hematological function. The case report therefore emphasizes that management should address both nutritional status and anemia rather than treating them as completely separate problems.

The management provided to Mrs. M was comprehensive and included nutritional counseling, recommendations to consume balanced and nutrient-dense foods, encouragement to consume iron-rich foods, regular iron supplementation, vitamin C intake to support iron absorption, adequate rest, and periodic monitoring of body weight, BMI, MUAC, and hemoglobin levels. Maternal and fetal conditions were also monitored during antenatal visits. These interventions were in accordance with the management described in the case report for pregnant women with grandemultiparity, CED, and anemia. Nutritional management was particularly important because the mother's initial nutritional indicators showed inadequate status. The recommendation to consume smaller but more frequent meals was intended to help improve nutritional intake despite the mother's decreased appetite. The mother was also advised to consume foods containing iron, such as meat, liver, green vegetables, and legumes, together with vitamin C-rich fruits. This approach was intended to support both nutritional improvement and anemia management. Continuous monitoring of weight and MUAC was important to evaluate the maternal response to nutritional intervention.

The management of anemia focused on improving iron intake and monitoring the response to supplementation. The mother reported regular consumption of iron tablets during the observation period. In addition, she received education regarding the importance of iron supplementation and adequate dietary intake. This approach was relevant because nutritional management alone may not be sufficient when anemia has already been identified. Regular monitoring was therefore necessary to assess whether the intervention produced a measurable hematological response. Following three antenatal visits, the mother's condition demonstrated gradual improvement. Her body weight increased from 45 kg to 48 kg, BMI increased from 17.9 kg/m$^2$ to 19.2 kg/m$^2$, and MUAC increased from 21 cm to 21.5 cm. Her hemoglobin level also increased from 9.5 g/dL to 10 g/dL. Subjectively, the mother reported reduced fatigue and dizziness and improved appetite. These changes indicate a positive response during the observation period and suggest improvement in both nutritional and hematological status. The improvement in hemoglobin is consistent with the findings of Resmaniasih et al. (2024), which are cited in the case report. Their study indicated that comprehensive midwifery care involving nutritional monitoring, hemoglobin assessment, nutritional education, and iron supplementation may contribute to improving the condition of pregnant women with CED and anemia. In the present case, similar components of care were provided, and the mother's hemoglobin increased from 9.5 g/dL to 10 g/dL while her general condition remained stable.

However, the increase in hemoglobin should be interpreted carefully. Although the level increased from 9.5 g/dL to 10 g/dL, it had not yet reached the normal target of ≥11 g/dL stated in the case report. Therefore, the result demonstrates improvement rather than complete

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resolution of anemia. Continued iron supplementation, adequate nutritional intake, and regular antenatal monitoring were still required. The case report also emphasizes that longer observation may have provided a better opportunity to evaluate whether the hemoglobin level could reach the normal range. The improvement in nutritional indicators also suggests a favorable response to the care provided. The increase in body weight from 45 kg to 48 kg and MUAC from 21 cm to 21.5 cm indicates a positive change in maternal nutritional status during the monitoring period. Nevertheless, these changes should not be interpreted as being caused by a single intervention. Nutritional counseling, dietary changes, iron supplementation, antenatal monitoring, maternal compliance, and family support occurred simultaneously. Therefore, the improvement is more appropriately understood as the result of comprehensive and continuous care. Maternal behavior also played an important role in the outcome. During the observation period, Mrs. M was described as cooperative and willing to follow the recommendations provided. She became more aware of the importance of adequate nutrition, regularly consumed iron tablets, and paid greater attention to her daily diet. This behavioral change supported the implementation of the midwifery interventions and may have contributed to the observed improvement in maternal condition.

Another important finding was that no pregnancy danger signs or obstetric complications were identified during the monitoring period. This is significant because the case involved several simultaneous risk factors, including grandemultiparity, CED, anemia, and a history of three previous cesarean sections. The absence of complications during the observation period suggests that appropriate monitoring and management were able to maintain maternal and fetal stability, although it does not eliminate the underlying pregnancy risks. The uniqueness of this case lies in the combination of multiple pregnancy risk factors occurring simultaneously. Grandemultiparity, CED, anemia, and a history of repeated cesarean sections required the midwife to consider the mother's condition comprehensively rather than focusing on only one diagnosis. This case demonstrates the importance of early detection, nutritional assessment, hemoglobin monitoring, iron supplementation, maternal education, and family support as components of individualized antenatal care. Overall, the case demonstrates that comprehensive midwifery care can support improvements in the condition of a grandemultiparous pregnant woman with CED and anemia. The observed improvements in body weight, MUAC, hemoglobin level, appetite, and subjective complaints indicate a positive maternal response during the observation period. However, because the hemoglobin level remained below the normal target and the observation ended at 36–37 weeks of gestation, continued monitoring and management were still necessary. The findings should therefore be interpreted as evidence of improvement during the observed period rather than complete recovery or proof of the effectiveness of any single intervention.

## CONCLUSION

This case report concludes that comprehensive and continuous midwifery care can support the improvement of maternal conditions in a grandemultiparous pregnant woman with Chronic Energy Deficiency (CED) and anemia. After three antenatal visits, the mother's body weight increased from 45 kg to 48 kg, MUAC from 21 cm to 21.5 cm, and hemoglobin level from 9.5 g/dL to 10 g/dL. Maternal complaints of fatigue and dizziness also decreased, while no pregnancy danger signs or obstetric complications were identified during the observation period. Although the mother's condition showed improvement, her hemoglobin level had not yet reached the normal level of ≥11 g/dL. Therefore, continued nutritional management, regular iron supplementation, and antenatal monitoring are needed until delivery to optimize maternal and fetal well-being.

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