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The relationship between ineffective peripheral perfusion and Anemia: case study

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ABSTRACT
Anemia is a condition characterized by reduced hemoglobin (Hb) in the body. Hemoglobin is a metalloprotein, a protein containing iron in red blood cells that carries oxygen from the lungs to the rest of the body. Anemia is a condition in which the body experiences a lack of red blood cells, causing the body's organs not to receive enough oxygen, making anemia sufferers have pale skin and get tired quickly. The general aim of this scientific paper is to examine the relationship between ineffective peripheral perfusion and Anemia through nursing care. The research design used was a case study which explored the problem of nursing care for patients who experienced Anemia at Misi Lebak Hospital for three days for Mrs. S. Data collection can be done through interviews, observation, physical examination and documentation. The results of the assessment obtained were that the patient complained of weakness, nausea, and vomiting. Assessment results: anaemic conjunctiva, blood pressure 80/60 mmHg, breathing 20x/minute, pulse 87x/minute, body temperature 36.8°C, could only eat food ½ portion, BW before illness 45 Kg, BW during illness 44 Kg, TB 156 Cm, BMI: 18.33 with underweight interpretation, laboratory examination results show, Hemoglobin 7.6 g/ dL, Leukocytes 18,960 /µL. Problems that arise are ineffective peripheral perfusion, nutritional deficits, activity intolerance, and risk of infection. The implementation provides educational actions, teaches an iron diet program to improve circulation, recommends small but frequent meals and monitors food intake, monitors physical fatigue, and monitors signs and symptoms of local and systemic infections, in addition to collaborating with the medical team in administering transfusions, antibiotic therapy, and anti-nausea as well as collaborating with the Nutrition team in providing an iron diet. Nursing problems can be resolved on the third day with the criteria for Hb results increasing to 10.2 g/ dL, systolic and diastolic blood pressure improving to 120/80 mmHg, the portion of food consumed increasing to 1 portion, complaints of fatigue decreasing, the patient being able to carry out activities, white blood cell levels improved to 10,500 /µL.

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INTRODUCTION

Anemia is defined as a low concentration of hemoglobin in the blood. Hemoglobin is a protein that carries oxygen throughout the body's tissues. When a person does not have enough red

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blood cells or the amount of haemoglobin in the blood is low, the body cannot get oxygen according to its needs, so the person will feel tired or suffer from other symptoms [9].

Anemia is a marked condition with reduced hemoglobin (Hb) in the body. Haemoglobin is One metalloprotein, the protein-containing substance iron inside cell blood, working red as a carrier of oxygen from the lungs to the body [26]. Deficiency anaemia is the Anemia that is caused By a lack of iron used For haemoglobin synthesis or HB [7]. Anemia is something circumstances. When the body lacks low haemoglobin (Hb) levels in the blood, Anemia does not include infectious diseases, and Anemia can make the body weak And tired [17].

Anaemia is a condition that causes the body to lack red blood cells, which causes body organs to get too much oxygen, which causes anaemia sufferers to have pale skin and quick tiredness [4]. Anaemia occurs due to three conditions: the production of red blood cells, the excessive loss of blood, and the destruction of red blood cells too fast [25]. Anaemia is caused by a lack of substance nutrition, plays a role in the formation of haemoglobin, and can be caused by a lack of consumption or disturbance of absorption [10].

Anaemia is a problem in nutrition found throughout the world that not only affects countries' development but also hinders their progress. Anaemia has become a problem faced by countries, especially in Indonesia, which significantly impacts growth And development. The prevalence among anaemia sufferers is expected to be two billion. In 2012, according to the World Health Organization (WHO), the prevalence of anaemia in the world among women aged 15-49 years was around 29.9%, and in Southeast Asia, has prevalence highest at 65.5 %, in Indonesia (67.3%) experienced anaemia with rate Hb not enough of 12 gr%, in the district swamp especially at Mission Hospital Lebak there were 93 people affected by anaemia [3].

Anaemia is a common illness happen And can be experienced by anyone; however, most are affected by anaemia in women than men; as for signs, the symptoms are dizziness And easy tiredness. Treatment Common anaemia diseases, namely : First, consume foods high in iron; a common cause of someone suffering from anaemia is due to iron deficiency. The low rate of iron in the body will influence the production of blood red, and the result is that the body is incapable of producing blood red normally. Consuming the substance iron becomes Wrong. One method is to cure anaemia, which is present in the substance iron, by consuming several foods like meat, Red, Yellow eggs, seafood, wheat, and nuts, besides food substances iron obtained from consuming supplement substance iron.

Second is consuming Vitamin B12 and sour folate; besides the lack of iron, anaemia can be caused By a lack of vitamin B12 and sour folate in the body. This condition is generally known as vitamin B12 deficiency anaemia. Vitamin B12 and folic acid are nutrients the body needs to produce red blood cells. To meet the vitamin B12 intake, sufferers can eat foods such as meat, chicken liver, fish, oysters, shellfish, milk, cheese and eggs, while to meet the nutritional needs for folic acid, they can eat milk and green vegetables.

Third is blood transfusion. Blood transfusions are carried out by getting blood donations from other people. Blood transfusion is carried out via intravenous route. Blood transfusions are performed to treat aplastic anaemia, thalassemia, and other hemolytic anaemias. Blood transfusions help increase red blood cell levels in the body.

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Fourth is surgery; surgery is one option to cure anaemia. Surgery can be performed if Anemia is caused by internal bleeding and is life-threatening [14]. As for the role, a nurse can promote method counselling and give education about anaemia to health. Effort preventive can be recommended For consumers containing foods _ such as tall substance iron, and other efforts include non-pharmacological techniques For an increased rate of Hb. Curative efforts provide nursing care and collaborate with the medical team in providing therapy. Rehabilitative efforts can done with the method still guarding pattern, eating tall iron, and consuming foods that can increase Hemoglobin (Hb).

METHOD

This research is a case study that aims to describe whether there is a relationship between ineffective peripheral perfusion and patients experiencing anemia. This case study uses a nursing care approach that prioritizes holistic care through biological, psychological, social and spiritual aspects. The nursing intervention is focused on an interpersonal approach so that commitment is formed in the implementation provided by nurses in helping fulfil basic human needs during the treatment period in the hospital.

RESULTS AND DISCUSSION

Case Illustration

A woman, 64 years old, was admitted to the inpatient room with a medical diagnosis of Anemia. Assessment results: the patient complained of weakness, nausea, vomiting, anaemic conjunctiva, blood pressure 80/60 mmHg, breathing 20x/minute, pulse 87x/minute, body temperature 36.8°C, could only finish ½ portion of food, BW before sick 45 Kg, BB when sick 44 Kg, TB 156 Cm, BMI: 18.33 with interpretation of Underweight, laboratory examination results show, Hemoglobin 7.6 g/dL, Leukocytes 18,960 /µL. The patient received 2 x 1 gram Simextam therapy, 1 x 20 mg Omeperazole (IV), 3 x 10 mg Piralen, 3 x 4 mg Ondansetron (IV), 2 x 500 mg Methylprednisolone, 500 cc/8 hour Ringer Lactate infusion, and received a two bag PRC transfusion with blood type O.

Patient Condition

Anamnesis results: the patient complained of weakness, nausea, and vomiting. She was taken to the Community Health Center but it did not help; then he was taken to the hospital, where he was recommended to be treated; the main complaint was that the patient complained of weakness, nausea, vomiting, assessment results: anaemic conjunctiva, blood pressure 80/60 mmHg, breathing 20x/minute, pulse 87x/minute, body temperature 36.8°C, can only eat ½ portion of food, weight before illness 45 kg, weight during illness 44 kg, TB 156 cm, BMI: 18.33 with interpretation Underweight, laboratory examination results showed, Hemoglobin 7.6 g/dL, Leukocytes 18,960 /µL.

The results of further studies on Mrs S found compos mentis awareness data with a GCS score for motor response 6, speech response 5, and eye-opening response 4. The nurse partially assisted the patient's activities, namely bathing and administering medication. During the treatment period in the hospital, patients diligently carry out religious practices that support the success of the treatment process.

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Nurses carry out nursing actions for three days in the form of observation, therapy, education and collaboration. The nursing intervention aims to overcome problems, namely ineffective peripheral perfusion, nutritional deficits, activity intolerance and risk of infection. The intervention stage is divided into two, namely, the preparation stage and the implementation stage.

In the preparation stage, nurses provide health education about the function of nursing interventions and the goals to be achieved. The nurse then builds the patient's commitment to participate in nursing interventions regularly and actively. At the implementation stage, nurses provide educational measures to teach iron diet programs to improve circulation, encourage small but frequent meals and monitor food intake, monitor physical fatigue, and monitor signs and symptoms of local and systemic infections, in addition to collaborating with the medical team in administering transfusions, antibiotic therapy, and anti-nausea as well as collaborating with the Nutrition team in providing an iron diet.

After three days of treatment, Mrs S can be resolved with the criteria for Hb results increasing to 10.2 g/dL, systolic and diastolic blood pressure improving to 120/80 mmHg, the portion of food consumed increasing to 1 portion, and complaints of fatigue decreasing. The patient can carry out activities, and white blood cell levels improve to 10,500 /µL.

Discussion

Anemia is a condition characterized by reduced hemoglobin (Hb) in the body. Hemoglobin is a metalloprotein, a protein containing iron in red blood cells that carries oxygen from the lungs to the rest of the body. Deficiency anaemia is Anemia caused by a lack of iron, which is used for haemoglobin or Hb synthesis. Anaemia is a condition when the body lacks very low haemoglobin (Hb) levels in the blood. Anemia is not an infectious disease. Anemia can make the body weak and tired [1,2,25].

Anemia is a condition in which the body experiences a lack of red blood cells, causing the body's organs not to receive enough oxygen, making anemia sufferers have pale skin and get tired quickly. Anaemia occurs due to three conditions: production of less red blood, loss of blood way too much, and ruined cell red blood too fast. Anaemia is caused by a lack of substance nutrition, plays a role in forming haemoglobin, and can be due to lack of consumption or disturbance absorption. In the study carried out by the Writer, the causes of Anemia in Mrs S are her body weakness, nausea, and vomiting. She had already been brought to the public health centre, but there was no help. Then, she was brought to House Sick, as recommended. For treatment, complaints central patient signs his body weakness, nausea, and vomiting. Results assessment: yes, conjunctiva Anemia, pressure blood 80/60 mmHg, breathing 20x/ minute, pulse 87x/ minute, temperature body 36.8°C, only can use up ½ portion of food, BB before sick 45 Kg, BB at the time sick 44 Kg, TB 156 Cm, BMI: 18.33 with interpretation Heavy Body Less, results inspection laboratory shows, Hemoglobin 7.6 g/dL, Leukocytes 18,960 /µL. Can concluded between theory And fact. There is a similarity between Good reason And manifestation clinically; however, There is a difference: in theory, There is nausea And vomiting, so the heavy body decreases; meanwhile, in fact, the patient sighs nauseous And vomiting, and the BMI is 18.33 with the interpretation Heavy Body Not enough.

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Nursing diagnosis, in theory, anaemic patients are Ineffective Perfusion Peripheral, Constipation, Intolerance Activities, and Risk of Infection. The diagnosis of Mrs. S is Ineffective Peripheral Perfusion, Nutritional Deficit, Activity Intolerance, and Risk of Infection. It can be concluded that there are similarities in nursing diagnoses, namely Ineffective Peripheral Perfusion, Activity Intolerance, and Risk of Infection. In contrast, the difference in theory is that Constipation is raised while there is none, but a nutritional deficit appears.

Implementation of the theory of anaemia patients is providing education by teaching an iron diet program to improve circulation, recommending high-fibre foods, monitoring physical fatigue, and monitoring signs and symptoms of local and systemic infections, in addition to collaborating with the medical team in administering transfusions, antibiotic therapy, and laxatives and collaborating with the Nutrition team in providing a high fibre diet. In contrast, Mrs S nurses provide educational measures, teach an iron diet program to improve circulation, encourage small but frequent meals and monitor food intake, monitor physical fatigue, and monitor signs and symptoms of local and systemic infections, in addition to collaborating with the medical team in administering transfusions, antibiotic therapy, and antiemetics as well as collaborating with the Nutrition team in providing an iron diet. There are similarities between theory and facts, namely in the implementation of nursing providing education by teaching an iron diet program to improve circulation, monitoring physical fatigue, and monitoring signs and symptoms of local and systemic infections. However, there are differences, in theory, recommending eating high fibre and eating little but often and monitoring food intake on implementing facts by SIKI.

Evaluation of anemia patients according to theory is obtained, nursing problems can be resolved through the results criteria through SLKI, namely the Hb results increase, systolic and diastolic blood pressure improves, complaints of long and difficult defecation decrease, complaints of fatigue decrease, white blood cell levels improve, while for evaluation on Mrs S nursing problems can be resolved on the third day with the criteria for Hb results increasing to 10.2 g/dL, systolic and diastolic blood pressure improving to 120/80 mmHg, portions of food consumed increasing to 1 portion, complaints of fatigue decreasing, the patient can carry out activities, white blood cell levels improved to 10,500 /µL. It can be concluded that there are similarities between theory and facts in patients with Anemia so that nursing problems can be resolved, except that it does not treat complaints of defecation but handles complaints of nausea and vomiting .

CONCLUSION

Mrs S is a patient with a medical diagnosis of Anemia, compos mentis consciousness who complains of weakness, nausea, and vomiting, assessment results: anaemic conjunctiva, blood pressure 80/60 mmHg, breathing 20x/minute, pulse 87x/minute, body temperature 36.8° C, can only eat ½ portion of food, weight before illness 45 kg, weight during illness 44 kg, TB 156 cm, BMI: 18.33 with the interpretation of underweight, laboratory examination results show, haemoglobin 7.6 g/dL, leukocytes 18,960 /µL. The diagnosis made in the patient, Mrs. S, is Ineffective Peripheral Perfusion, Nutritional Deficit, Activity Intolerance, and Risk of Infection. The implementation includes providing educational measures, teaching

an iron diet program to improve circulation, encouraging small but frequent meals monitoring food intake, monitoring physical fatigue, and monitoring signs and symptoms of local and systemic infections. In addition to collaborating with the medical team in administering transfusions and antibiotic therapy and anti-nausea and collaborating with the Nutrition team in providing an iron diet. Nursing problems Mrs. S was resolved on the third day with the criteria for Hb results increasing to 10.2 g/dL, systolic and diastolic blood pressure improving to 120/80 mmHg, the portion of food consumed increased to 1 portion, complaints of fatigue decreased, the patient was able to carry out activities, cell levels white blood count improved to 10,500 /µL.. The key to success in providing professional nursing care is done through assessment, establishing a diagnosis, determining intervention professionally, and carrying out interventions in implementation and evaluation through outcome criteria to achieve an optimal level of health. So, there is a relationship between ineffective peripheral perfusion and Anemia.

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