



Case Report on ANC Mother Two Month with Severe Anemia

**Roshani Shankarrao Warghane^{1*}, Kavita Gomase²
and Manjusha Mahakarkar²**

¹Smt. Radhikabai Meghe Memorial College of Nursing, Datta Meghe Institute of Medical Sciences
(Deemed to be University) Sawangi (Meghe) Wardha, Maharashtra, India.

²Department of Obstetrics & Gynecology Nursing, Smt. Radhikabai Meghe Memorial College of
Nursing, Datta Meghe Institute of Medical Sciences (Deemed to be University) Sawangi (Meghe)
Wardha, Maharashtra, India.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/JPRI/2021/v33i46B32975

Editor(s):

(1) Dr. Giuseppe Murdaca, University of Genoa, Italy.

Reviewers:

(1) Paridhi Garg, Rama Medical College & Research Centre, India.

(2) Arkierupaia Shadap, Sikkim Manipal University, India.

Complete Peer review History: <https://www.sdiarticle4.com/review-history/74185>

Received 20 July 2021

Accepted 23 September 2021

Published 23 October 2021

Case Study

ABSTRACT

Introduction: Human body creates extra blood throughout pregnancy to support human baby's growth. If you don't get enough iron or certain other nutrients, human body may be unable to manufacture the necessary number of red blood cells to produce this extra blood. When you're pregnant, it's typical to experience mild anemia [1].

Case Presentation: A case of a 26-year-old female admitted in the ANC ward on date 24 November 2020 with complaints of burning micturation, pain in abdomen, weakness, fever, breathlessness, in acharya vinoba bhawe rural hospital. She had low hemoglobin level which was 5.9 gm/dl and she looks very lethargic.

Intervention: The care is providing in ANC ward blood transfusion was done. The goals during this phase are improving the hemoglobin level, maintaining the body temperature, minimize the abdominal pain, saving a life, maintaining and protecting the airway, and preventing or correcting the complication.

Outcomes: Over the short course of treatment, the patient significantly improved her hemoglobin level after blood transfusion, improved breathing pattern, reduced abdominal pain and maintained normal temperature. Make even more progress toward her aim of returning home.

Discussion: Although the patient reacted well to treatment, further interventions could be used in the future to help the patient achieve even better results [2].

Keywords: Anemia; antenatal mothers; pregnancy.

1. INTRODUCTION

Human body creates extra blood throughout pregnancy to support human baby's growth. If you don't get enough iron or certain other nutrients, Human body may be unable to manufacture the necessary number of red blood cells to produce this extra blood [2]. When you're pregnant, it's typical to experience mild anemia. Rhesus isoimmunization and blood coagulation disease are the two most frequent hematological disorders that can occur during pregnancy. Anemia in pregnancy is defined as a hemoglobin concentration in the peripheral blood of 11 gm/100 ml or below, according to WHO guidelines. Anemia is defined as a hemoglobin level of less than 10 grammas per deciliter (gm/dl) at any time during pregnancy a hemoglobin level of less than 9 gm/dl necessitates further study and therapy. Using this lower level, the incidence of anemia in pregnancy in the tropics ranges from 40 to 80 percent, compared to 10 to 20 percent in affluent countries. In third-world countries, anemia is responsible for 20% of maternal deaths [3].

2. CASE HISTORY: PATIENT INFORMATION

A case of a 26-year-old female admitted in the ANC ward on date 24 November 2020 with complaints of burning micturation, pain in abdomen, weakness, fever, breathlessness, in Acharya Vinoba Bhave rural hospital. She had low hemoglobin level which was 5.9 gm/dl and she looks very lethargic. As during the antenatal period there is more requirement of nutritious diet but she didn't not take the diet according to her need.

2.1 Obstritical History

She was primigravida mother and her obstritical score was G₁P₀A₀L₀she didn't have any bad obstritical history, her age of menarche was 13years and her last menstrual period came on 14 October 2020 and her expected due date 21 July 2021.

2.2 Psychosocial History

He maintains good interpersonal relationships between the family member, neighbors, friends and relatives.

2.3 Environmental History

Patient home surround environment is good. There is a facility of a closed drainage system and proper disposal of waste.

2.4 Physical Examination

- General parameter: Height: 155 cm, weight: 46 kg, BMI : 19.1
- Vital sign : temperature : 99.8 0F , pulse : 90 beat / min , respiration : 28 breath/min, blood pressure : 120/80 mm of Hg
- Mental status: she was conscious and she was oriented to the time, place, and person.
- Breast: No enlargement, nipple not erectile, tenderness present.
- Abdomen: no any scar present, stari gravidum not present, lineanigrae not present
- Speech: ability to talk. Sound is present.ss

2.5 Diagnosis Assessment

Blood investigation: In CBC Hemoglobin is 5.9 mg/dl(13-16 mg/dl), mean corpuscular hemoglobin concentration is 21.3p g, Mean corpuscular volume (MCV) is 66 fl (78-98 fl), RBC was 3.14,WBC is 9800 (4500-11,500 k/ul), platelet count is 242,000/ml (150,000 to 450,000), Hematocrit (Hct) Levels is 27.9% (37 %-47 %), monocytes is 02% (00-15%), Esinophils 2%, Lymphocytes is 29 %(20%-40%), red cell distribution width (RDW) is 16.9 (11.6-14.8) ,Eosinophils is 02 % (1-5 %) basophils is 00 % (0-1 %), neutrophils 67%.In KFT urea is 13 (9.81 – 20.1 mg/dl) , creatinine is 0.56 mg/dl (0.7-1.4 mg/dl) ,sodium is 126 meq/l (135-145meq/l), potassium 4.5(3.5-5.5 meq /l), USG Report: single intrauterine live embryo of CRL 4 mm corresponding gestational age of 6 weeks 1day .Left corpus luteal cyst and no medical surgical condition complaining pregnancy.

2.6 Medical Management

- Blood transfusion was given , A^{+ve}
- Iron supplementation : Tab autrin (Ferrous Fumarate), Tab folic acid (Folvite)

Chart 1. Significant medical timeline

Time	Problem	Place	Action /progress
25 /11/2020	Fever, burning micturation	Hospital	Symptomatic treatment provided
26/11/2020	Low Hemoglobin level, breathlessness	Hospital	Blood transfusion was done

2.6.1 Antibiotic

Inj. Ceftriaxone 1gm (Rocephin), Inj. Metrogl 100ml (METRONIDAZOLE), Tab doxycycline (doxycycline):

- Antipyretic :Inj. Neomol (Acetaminophen or Paracetamol),
- Injbuscopan, Inj.pantaprazole 40mg (Pantoprazole)
- Monitor the breathing: The patient is positioned in semi fowler's position to facility breathing O2 should be administered.
- Fluid replacement: To maintain electrolyte imbalance.
- Monitoring of laboratory parameters: baseline parameters of blood glucose, urea, creatinine, hematocrit and electrolytes should be measured.
- Tetanus immunization: administer tetanus toxoid to prevent tetanus.
- Ultrasonography done.

2.6.2 Nursing management

Nursing diagnosis

1. Breathlessness related to low hemoglobin level.
Goal:to maintain the normal breathing pattern
Intervention: Assessed the breathing pattern, semi fowlers position provided, oxygen therapy administered.
Evaluation: Patient maintained normal breathing pattern.
2. Burning micturation related to urinary tract infection.
Goal: To get relief from burning micturation
Intervention; administered IV. Fluid to maintain electrolyte imbalance, administered antibiotics as per gynecologists ordered, advised to drink more water.
Evaluation: burning micturation reduced.
3. Hyperthermia related to urinary tract infection.
Goal: to reduced temperature.
Intervention: cold sponge provided, administered cold sponge, administered antipyretic as per physician.

Evaluation: maintained normal body temperature.

3. DISCUSSION

Cardiovascular symptoms, impaired physical and mental performance, reduced immunological function, and exhaustion are just a few of the maternal consequences of anemia. Growth retardation, preterm, intrauterine death, amnion rupture, neural tube abnormalities, and low birth weight are some of the fetal effects. In our case, the sole problem was a low hemoglobin level of 5.9 gm/dl, which caused dyspnea, fever, weakness, and a urinary tract infection, which caused searing micturation [4].

When oral iron is not suggested in pregnancy, IV iron is a common alternate treatment. As established in various trials, the novel IV iron therapy formulations induce a larger, as well as faster, increase in Hb concentration and SF levels than oral iron supplements. When compared to oral iron, ICM ensures a faster treatment of anemia as well as a noticeable improvement in quality of life with a reduced rate of symptoms like fatigue and sadness. It also has a better tolerance and, as a result, compliance than oral iron [5].

The need for iron, however, varies markedly during each trimester of pregnancy [6]. Iron requirements decrease during the first trimester because menstruation stops, which represents a median saving of 0.56 mg Fe/d (160 mg/pregnancy). The only iron losses that must be met during this period are the obligatory ones from the body via the gut, skin, and urine, which amount to ≈0.8 mg/d in a 55-kg woman (14 g•kg⁻¹•d⁻¹ or 230 mg/pregnancy). Early hemodynamic changes include generalized vasodilation, some increase in the plasma volume, and an increase in red blood cell 2,3-diphosphoglycerate concentrations [7,8,9,10].

4. CONCLUSION

Iron-rich foods (such as dark green leafy vegetables, red meat, fortified cereals, eggs, and peanuts) can help you maintain the iron supply your body need to function effectively. Vitamins

will also be prescribed by your obstetrician to ensure that you get adequate iron and folic acid. Ensure that you consume at least 27 milligram's of iron every day. If you develop anemic throughout your pregnancy, iron supplements can usually be used to treat anemia.

The patient was discharged when the investigation and management were completed.

The patient's haemoglobin level increased dramatically during the course of treatment, and he maintained a normal breathing pattern while also experiencing less fever and weakness. Make even more progress toward his objective of returning home.

CONSENT

As per international standard or university standard, patient's consent has been collected and preserved by the authors.

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Bothwell TH. Iron requirements in pregnancy and strategies to meet them.

The American Journal of Clinical Nutrition. 2000;72(1):257S-64S.

- Green R, Charlton R, Seftel H, Bothwell T, Mayet F, Adams B, Finch C, Layrisse M. Body iron excretion in man: a collaborative study. The American Journal of Medicine. 1968;45(3):336-53.
- Flanagan B, Muldowney FP, Cannon PJ. The relationships of circulating red cell mass, basal oxygen consumption and lean body mass during normal human pregnancy. Clinical Science. 1966;30(3): 439-51.
- Dutta DC. Textbook of Obstetric including perinatology & contraception, 5th Edition.
- Annamma Jacob. A Comprehensive Textbook of Midwifery, Jaypee Publishers; 2005.
- Hallberg L, Rossander-Hulten L. Iron requirements in menstruating women. The American Journal of Clinical Nutrition. 1991;54(6):1047-58.
- Lewis et al, Medical Surgical Nursing, Mosby Elsevier, 7th edition.
- Joyce. M. Black et al, Medical Surgical Nursing, Saunders Publication.
- Chaman-Ara K, Bahrami MA, Moosazadeh M, Bahrami E. Prevalence of infertility in women with genital tuberculosis: A systematic review and meta-analysis. IJBS. 2017;11(1):21–27. [Google Scholar]
- Malhotra N, Sharma V, Bahadur A, Sharma JB, Roy KK, Kumar S. The effect of tuberculosis on ovarian reserve among women undergoing IVF in India. Int J Gynaecol Obstet. 2012;117(1):40–44. DOI: 10.1016/j.ijgo.2011.10.034. [PubMed] [CrossRef] [Google Scholar]

© 2021 Warghane et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
The peer review history for this paper can be accessed here:
<https://www.sdiarticle4.com/review-history/74185>