

Case study

CASE REPORT ON MALARIA

Abstract

Introduction- It is a mosquito-borne illness that spreads by mosquito bites from one person to the next. Fever or flu symptoms include shivering chills, headaches, muscle pains. Anemia, jaundice, nausea, and diarrhoea are some of the symptoms of malaria.

Main Symptoms and/or Important Clinical Findings: A 24-year-old woman was admitted in A.V.B.R.H. with stomach pain as her primary complaint. Then after several days Fever, pain, fatigue, headache occur. Several diagnostic evaluations done which shows total RBC count: 4.8 million cu mm; white cell count: 11.810 cells mm³; lymphocytes: 11.2% platelets drop on smear, RBCs are moderate and diagnosed as malaria.

The Main Diagnoses, Therapeutic Interventions, and Outcomes' 24 years old woman admitted in AVBRH with the chief complaint of stomach pain, fever, fatigue, headache and after all investigation she has diagnosed as malaria. Doctor manage with IV fluids, cap. doxycycline 100 mg, tab.dolo 650 mg, tab.larigo 650 mg, emset 4 mg injection Once a day, she was also given the Calcium Tab. Her condition has improved as a result of the treatment. The fever and agony had subsided.

Conclusion- My patient was admitted to AVBRH with a known case of malaria and a fever and discomfort complaint. Her condition improved after she received proper therapy.

Keywords- Malaria, larigo, anemia

INTRODUCTION

It is a mosquito-borne illness that spreads by mosquito bites from one person to the next. The parasites proliferate in the liver after a mosquito bite and then infect red blood cells.(1) Every year, one million people are killed by malaria, The bulk of them are under the age of five years old. Plasmodium falciparum, a microscopic parasite, is the organism that causes the most fatal type of malaria.(2) Only female mosquitoes transmit this parasite, which is disseminated by mosquito species belonging to the Anopheles genus.(3) Using mosquito bed nets sprayed with long-lasting insecticides to limit mosquito bites and kill mosquitoes, as well as treating the region with pesticides, are the most effective mosquito prevention strategies.(4) To kill malaria-carrying mosquitos, spray similar inside the walls of dwellings.(5) The World Malaria Report

2008 from the World Health Organization examines Malaria infections are on the rise, and deaths in affected countries from 2001 to 2006, and looks at whether WHO recommendations are being followed.(6)

Patient Information

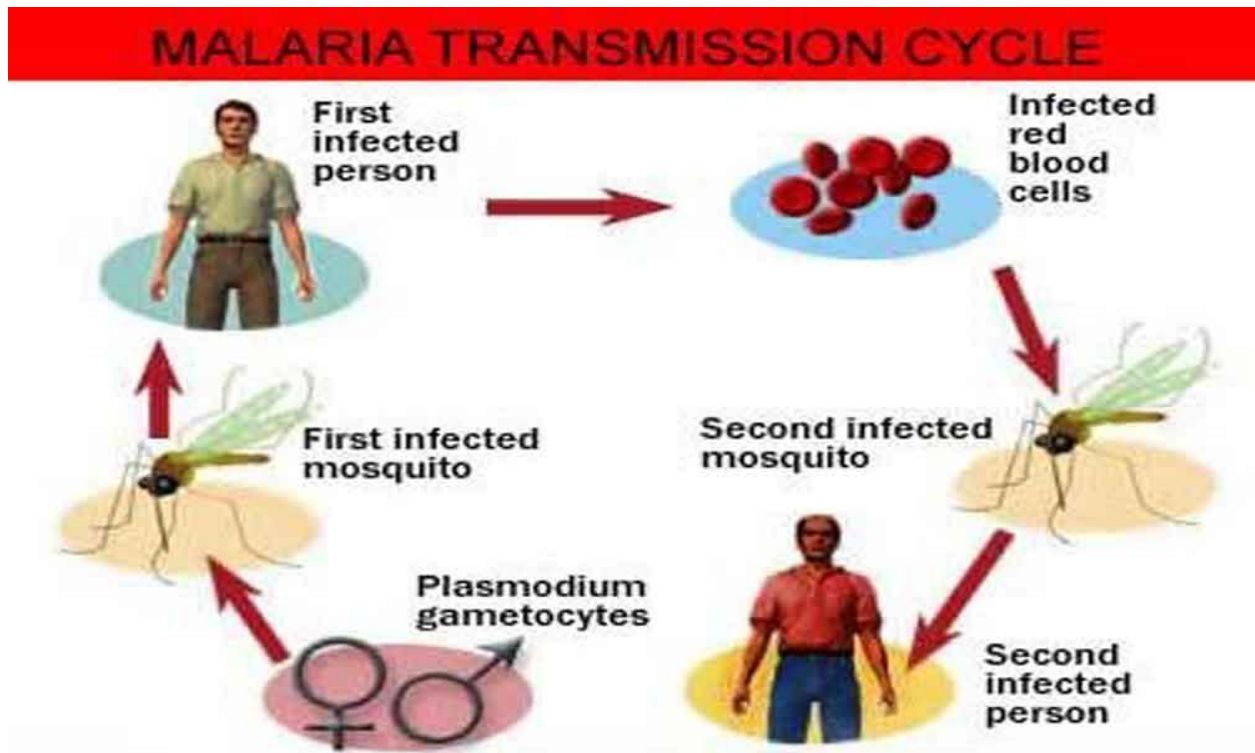
Patient specific information: -A 24-year-old woman was admitted to A.V.B.R.H. with stomach pain as her primary complaint. The doctor identified a case after a physical examination and research. A flu-like illness is characterized by fever, chills, headache, muscle pains, and tiredness. Common adverse effects include nausea, vomiting, and diarrhoea.

Present Medical History- Abdominal pain, fever, trembling chills, headache, and muscle tension was all present when a 24-year-old female was brought to AVBRH. Malaria has been diagnosed in her. At the time of admission, the platelet count is fewer than 150,000 m m³. She is fragile and sits a lot.

Past Medical History- When my patient was admitted to the hospital with a fever, she was diagnosed with Malaria.

Family History- The family consists of four members. My patient was diagnosed with Malaria. Non-consanguineous marriage is a type of parent marriage. Except for my patient, who was admitted to the hospital, the rest of the family had no issues.

Clinical Manifestation- The typical paroxysmal attack of malarial fever is Cold, heated, and sweating stages are split into three categories (a febrile period). Laziness, headache, nausea, anorexia, limb soreness, and a chilly sensation are common symptoms of the cold stage, which are rapidly followed by stiffness. The body temperature immediately rises to 39 to 41 degrees Celsius with severe headache, vomiting, restlessness, weakness, and a fast pulse. In the hot stage, patients become overheated and remove their garments. The skin is flushed, dry, and scorching. With a full pulse and quick breathing, the headache becomes more painful. The heart rate has slowed. The patient is relieved and falls asleep soon after. This stage can last anywhere from 2 to 4 hours.



Pic 1. Malaria transmission cycle (Source: www.thehansindia.com)

Medical Management- The specific treatment consists of antimalarial drug, with the recommended drug regimen by national antimalarial program. The drug regimen mentioned specific treatment schedule for high-risk areas, low risk areas and for severe and complicated malaria. Chloroquine and primaquine are recommended as presumptive and radical treatment with pleasuredose as per kg of body weight and for specific duration Severe complicated cases are to be hospitalized for treatment.

Symptomatic management- It should be done with antipyretic and adequate fluid therapy, orally or with IV fluid. Anticonvulsive drugs and steroids may be needed. Blood transfusion may be required in severe anemia. Good nursing care should be provided with rest, skin care, tepid sponge, increasing fluid intake, balanced diet and hygienic measure. Emotional support and involvement of the parents with necessary instrument are important aspects of care.

Nursing management - 1) Make certain that the nursing care is precise. This can save a patient's life, especially if they are unconscious. Keep your airway open.

- 2) To avoid fluid aspiration, place the patient in a lateral or semi-prone position.
- 3) The stomach contents are evacuated via an NG tube to reduce the risk of aspiration pneumonia.
- 4) Keep track of your intake and outflow. In order to ascertain the approximate weight of the patient, weigh him or her every day.

Past intervention and outcome- my patient diagnosed with malaria, present case had no history of similar attack, no history of hypertension, diabetes, or tuberculosis. Treatment and improvement were still ongoing on my last day of care.

Clinical Finding- The patient was awake and aware of the date, time, and location. Her physique was average, and she kept up with her personal cleanliness. In the context of a *P. falciparum* positive blood smear, she had a fever [axillary temperature 37.5°C], chills, severe malaise, headache, or vomiting) at the time of assessment or 1–2 days before the examination.

Physical Examination- In a head to toe examination, there isn't much abnormality. She has a drab appearance. She is frail and uncooperative

Diagnostic Assessment- Based on her medical history, physical examination, belly palpation, USG, and other tests, the patient is pregnant with twins. The fasting blood sugar levels were abnormally high. Hemoglobin levels were marginally lower, while serum levels were slightly lower. White blood cells (WBCs) have increased in number. There were no issues during the diagnostic exam.

Prognosis: The current instance is mildly anemic, with an elevated WBC count, according to blood tests. The fetal status was normal on ultrasonography, although there were signs of first-stage intrauterine growth restriction. With early diagnosis and treatment, the prognosis is usually favourable. With presence of complication, outcome may vary. Malnutrition and other associated problem may also be found.

Therapeutic Intervention- The medical therapy of malaria was used in this patient. Analgesic medicines were given to the patient to help with the pain. There were no changes to the treatment intervention. Iv fluids, cap. Doxycycline 100mg, tab. dolo 650mg, tab. larigo 650mg, and inj. emset 4mg are also available. She was also given the Calcium Tab. once a day.

Discussion- The patient was admitted to the hospital with stomach pain as the primary complaint. Following a medical check and inquiry, the doctor determined that she had malaria. The most

successful malaria treatment is a combination of anti-malarial medications, one of which is an artemisinin derivative. (7) Antimalarial medications can also be used to prevent malaria in pregnant women. Malaria has a decreased probability of causing harm to both the mother and the fetus. Several multinational organizations have set lofty goals for malaria control around the world. (8) It assesses how far the sickness has progressed, as well as the funding sources, and assesses the effectiveness of malaria control programmes. (9) In India, malaria has been a severe problem health trouble affecting mainly the north-eastern states, because the geography and weather condition of these areas favour the prevalence of malaria parasites such as Anopheles minimus, Anopheles dirus, Anopheles fluviatilis and Plasmodium falciparum. In 1976, there were total 6.74 million reported cases of malaria, which decreased to 2.1 million in 1984 after the implantation of a modified plan of operation. There were total 0.98 million cases of malaria in the nation, out of which 0.46 were Falciparum cases in 2001. (10)

Conclusion- The Plasmodium parasite, which is carried by mosquito bites, causes the disease. Depending on the Plasmodium species, the severity of malaria varies. It helps to improve the state of the patient if we provide proper care with diverse multidisciplinary health teams and their supportive management. Patient is awake and alert, and her condition has improved.

Ethical clearance- Taken from institutional ethics commits.

References-

1. Mosquito Bites: What They Look Like, Why They Itch & Treatment [Internet]. [cited 2021 Nov 18]. Available from: <https://my.clevelandclinic.org/health/diseases/17695-mosquito-bites>
2. Plasmodium Vivax Malaria - StatPearls - NCBI Bookshelf [Internet]. [cited 2021 Nov 18]. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK538333/>
3. Prevention C-C for DC and. CDC - Malaria - About Malaria - Biology [Internet]. 2020 [cited 2021 Nov 18]. Available from: <https://www.cdc.gov/malaria/about/biology/index.html>
4. Prevention C-C for DC and. CDC - Malaria - Malaria Worldwide - How Can Malaria Cases and Deaths Be Reduced? - Insecticide-Treated Bed Nets [Internet]. 2019 [cited 2021 Nov 18]. Available from: https://www.cdc.gov/malaria/malaria_worldwide/reduction/itn.html
5. Malaria [Internet]. [cited 2021 Nov 18]. Available from: <https://www.who.int/news-room/fact-sheets/detail/malaria>

6. The “World malaria report 2019” at a glance [Internet]. [cited 2021 Nov 18]. Available from: <https://www.who.int/news-room/feature-stories/detail/world-malaria-report-2019>
7. 9789241564403_eng.pdf [Internet]. [cited 2021 Nov 18]. Available from: https://www.who.int/malaria/world_malaria_report_2011/9789241564403_eng.pdf
8. Nosten F, White NJ. Artemisinin-Based Combination Treatment of Falciparum Malaria [Internet]. Defining and Defeating the Intolerable Burden of Malaria III: Progress and Perspectives: Supplement to Volume 77(6) of American Journal of Tropical Medicine and Hygiene. American Society of Tropical Medicine and Hygiene; 2007 [cited 2021 Nov 18]. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK1713/>
9. World Health Organization. World malaria report 2020: 20 years of global progress and challenges [Internet]. Geneva: World Health Organization; 2020 [cited 2021 Nov 18]. 247 p. Available from: <https://apps.who.int/iris/handle/10665/337660>
10. Lippincott Manual of Medical - Surgical Nursing Adaptation of Nettina ... - Suresh K. Sharma - Google Books [Internet]. [cited 2021 Nov 18]. Available from: <https://books.google.co.in/books?i>