Case Report

A Case Report on Diagnostic Evaluation and Management of Chikungunya

ABSTRACT

Introduction: Chikungunya virus is spread by Aedes aegypti and Aedes albopictus mosquitos, which are found throughout the Asian, European, African, and American continents. Infection with the Chikungunya virus is spread via mosquitoes. (CHIKV). Fever and arthralgia are the most common symptoms. The same mosquitos that cause Chikungunya also spread Dengue and Zika viruses, and there have been occurrences of coinfections. To tackle the infection, there is currently no vaccine or specific therapy available. The goal of treatment is to reduce the severity of the disease's symptoms. **Patient Information:** A 33-year-old male was admitted to AVBR hospital with a chief complaint of fever, & severe joint pain for 3 days, headache, muscle pain, nausea & vomiting. **Main symptoms: -** He has the chief complaint of fever, & severe joint pain for 3 days, headache, muscle pain, Nausea & vomiting after careful history collection, physical examination, Complete blood count, RBS, CT scan, MRI Etc. my patient diagnoses as chikungunya. **Medical Management:** - Patient was provided with the medication as prescribed by the doctor. Among the major drugs are antipyretics, analgesics such as Tab. Paracetamol, Tab. acetaminophen, Tab. Emset. **Nursing Perspectives:** - After diagnosis, the patient's vital signs are monitored hourly as medications are administered as per doctor's prescription, maintaining the IV fluid 4 hourly with a concise record of an intake and output chart.. **Conclusion:** Patient's health condition improved following early diagnosis and timely treatment of infection

Keywords: - Chikingunya, Fever, Arthralgia, Mosquitoes, Diagnosis, Therapy

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Introduction

The chikungunya virus, a type of alphavirus, causes chikungunya fever, a mosquito-borne sickness. The mosquitoes (Aedes aegypti and Aedes albopictus) are the predominant chikungunya vectors throughout Asia and the Indian Ocean islands. In 1952, the virus was first detected in Tanzania [1]. It's been linked to a series of outbreaks in several nations since then. The virus has been detected in Africa, Southeast Asia, and India, among other places. Several countries in the affected regions are reporting sporadic instances regularly. Chikungunya is now found in over a hundred countries throughout the world. Chikungunya is an RNA virus that belongs to the alphavirus genus of the Togaviridae family.[2] The term "chikungunya" is derived from a Kimakonde expression that means "to become distorted," & alludes to joint pain sufferers' bent posture (arthralgia). Chikungunya fever is a febrile illness that can afflict anyone of any age and is usually self-limiting. Epidemic peaks tend to diminish as population immunity improves because CHIKV infection gives long-term protection.[3]

Chikungunya is a virus spread by arthropods that causes severe polyarthralgia and arthritis in people. It is found in Africa, Southeast Asia, and India. Six Bangladeshi individuals with chikungunya fever are discussed in this briefcase series. Although Bangladesh is in an endemic zone, the disease is uncommon here, necessitating prompt diagnosis and treatment.[4]

In late 2013, in the Caribbean islands, the Chikungunya virus was detected for the first time in the Americas[5]. Tourists who have been infected can transfer the disease to other locations. The chikungunya virus has no vaccine or medication available to prevent or treat the infection. Mosquito bite prevention is a good approach for travelers to protect themselves against mosquito bites. When visiting countries where the chikungunya virus is present, use insect repellent, wear long sleeves and trousers, and stay in areas with air conditioning or window and door screens.[5]

The rash appears in 40–50% of cases, usually as a maculopapular rash two to five days following the onset of symptoms. Abdominal pain, nausea, vomiting, or diarrhea are all possible digestive symptoms. Significant weariness and pain hinder normal activity in more than half of cases. Eye inflammation in the form of iridocyclitis or uveitis, as well as retinal abnormalities, occurs seldom. There's a chance you'll get liver damage for a while.[6]

Patient information

A 33-year-old male was admitted to Acharya Vinoba Bhave Rural Hospital , Wardha with a chief complaint of fever, & severe joint pain for 3 days, headache, muscle pain, nausea & vomiting. He was diagnosed as Chikungunya after undergoing all investigations such as complete blood count, CT scan, MRI.

The primary concern and symptoms of the patient

A chief complaint of fever, & severe joint pain for 3 days, headache, muscle pain, nausea & vomiting. he was diagnosed as Chikungunya after undergoing all investigations such as complete blood count, CT scan, MRI.

Medical family and psycho-social history

The patient suffering from chikungunya for 3 days in family history he is belongs to a nuclear family. His monthly family income is 50,000 INR. In this family, there are no medical problems like Hypertension, Diabetes mellitus, asthma. There are no hereditary or genetic disorders in the family. He was mentally stable. He is oriented to date time and place and he maintains a good relationship with family members.

Clinical Finding

On clinical examination, the patient had high fever, discoloration in the eye, conjunctivitis is all found. In rare circumstances, cervical or widespread lymphadenopathy has been described. Severe arthralgia, myalgia, and rash are other common signs.[7]

Timeline

A 33-year-old male was admitted to AVBR hospital with a chief complaint of fever, & severe joint pain for 3 days, headache, muscle pain, nausea & vomiting early diagnosis & proper treatment my patient condition was improved.

Diagnosis Assessment

Based on careful history collection, physical examination and investigation, a patient having high-grade fever, shortness of breathing is present. patient was adviced to go to the laboratory where investigation of his complete blood count, Routine test, random blood sugar, renal function test, hemogram, urine routine, ultrasound, CT scan, were all performed. Serological techniques, like enzyme-linked immunosorbent assays (ELISA), can be used to confirm the presence of anti-chikungunya antibodies, including IgM and IgG.

Diagnostic challenges

No challenges were reported during diagnostic evaluation. After history collection and physical examination and all investigations a doctor diagnosis a case of chikungunya.

Therapeutic Intervention:

In chikungunya virus infection has not any specific Treatment. options include rest, beverages, and the use of nonsteroidal anti-inflammatory drugs (NSAIDs) to relieve acute pain and fever. NSAIDs, corticosteroids, and physiotherapy may be used to alleviate persistent joint pain. During the first week of sickness, patients infected with chikungunya should be protected from future mosquito exposure to reduce the risk of local transmission. He was looking at all treatments and the outcome was good. His signs and symptoms were reducing. No change in therapeutic interventions.

Nursing Perspectives

Monitored vital signs hourly. Prescribed medicine as per doctors' orders. Maintain IV fluid 4 hourly & recorded intake output chart, monitor vital signs. Provided patient and relatives with psychological support, Establishing good interpersonal relationship. Patient was advised to drink plenty of water to avoid dehydration. Reduce fever and pain with paracetamol or acetaminophen. The patient was planned for follow-up regularly on basis of advice given by the physician.

Preventive Measures

According to public health experts, the following measures are adviced for prevention of Chikungunya infection: Putting on long-sleeved shirts, long pants, and other skin-protective clothing. Applying insect repellent to the skin or clothing. Having enough screens in indoor

rooms to keep mosquitoes at bay. If you sleep during the day, cover your bed with insecticide-treated mosquito nets. Cover your face and neck with mosquito netting, as well as using gloves or repellents. Avoid travel to areas where the chikungunya virus is circulating. Using mosquito coils and insecticide vaporizers during the daytime. Garbage should be stored in the proper place or in plastic bags. Getting rid of old tire collect or place left outside. Draining water from a container such as potted plants, buckets, rain gutters.

Discussion

The authors present a case of rhabdomyolysis caused by Chikungunya virus infection, a rather uncommon infectious consequence. With conservative management, the patient healed without incident and was discharged to his home.[8]

Temperature (92 percent), which can range from mild to severe & arthralgia 87%, are the most common presenting characteristics recorded in the literature. The discomfort in the joints is usually worse first thing in the morning. Mild exercise relieves it, but vigorous movements increase it. In 62 percent of cases, patients have headaches and chills. Chikungunya fever can be diagnosed with a Chikungunya virus serology or real-time reverse transcription-polymerase chain reaction (RT-PCR).[9]

Acute joint pain is the most prevalent symptom of chikungunya fever, and it occurs in nearly every clinical episode. We saw the same thing in both of our circumstances. The arthralgia is frequently symmetrical and peripheral, affecting both minor and large joints in the hands.[10]

As a result of the severe discomfort and swelling in the joints, patients generally experience Pain that lasts for weeks to months and is incapacitating. Although certain Arthralgia caused by chikungunya fever could last for years. Very few people joint discomfort two to three months after the illness had cleared up. [11,17]

Many tropical and subtropical locations around the world, including Sub-Saharan Africa, Southeast Asia, India, and the western Pacific, are endemic for the virus. Throughout recent years, Chikungunya has become widespread in the Caribbean, with a peak in 2014, when many cases were documented in Haiti, the Dominican Republic, and other parts of the region. [12,18,19]

Vector-borne transmission to humans is the most common mode of transmission. There is yet to be any proof of transfer from person to person. The CHIK virus, on the other hand, can be aerosolized, and laboratory workers have been infected as a result of working with it.[13]

The severe nature of CHIKV rheumatic disease, which can have a substantial influence on affected patients' quality of life for weeks, months, or even years. The recent CHIKV outbreaks, as well as their shown potential to move fast into new areas, have reignited interest in developing measures to prevent or treat CHIKV-related disease. [14,15,16]

Conclusion

Patient's health condition improved following early diagnosis and timely treatment of infection

Ethical Approval:

As per international standard or university standard ethical approval has been collected and preserved by the authors.

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