

ORIGINAL RESEARCH ARTICLE

Usage of Antimicrobials in Chikungunya at a Tertiary Care Hospital

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ABSTRACT

Chikungunya is a viral fever caused by arthropod-borne virus, of the genus *Alpha virus*, which is transmitted by the bite of *Aedes aegypti* mosquitoes from person to person. Aim of this study was to analyze the usage of antibiotics or various drugs prescribed in tertiary care hospital setup in the treatment of Chikungunya. After Institutional Ethics Committee approval, 71 patients' data were collected using proforma. It has included details about sex, age, disease and drugs used. From this study it was clear that males were more suffered with Chikungunya in the age group of 21 – 30 yrs. Majority of the persons were recovered from illness within 10 days. Only half of the patients were prescribed with antimicrobials so that can be useful to minimise antibiotic resistance. They were used according to hospital antibiotic policy. Fluoroquinolones and beta lactam antibiotics alone were prescribed. Paracetamol was used in majority of the patients. Pantoprazole was the commonly used antacid agent and cetirizine was the commonly used antihistamine in these patients. So to conclude that there was an effective management of Chikungunya to all the patients.

Key words: Chikungunya, antibiotics, antimicrobials.

INTRODUCTION

Chikungunya is a viral fever caused by arthropod-borne virus, of the genus *Alpha virus*, which is transmitted by the bite of *Aedes aegypti* mosquitoes from person to person¹. It manifests as fever, severe joint pain, nausea, vomiting, maculopapular rash. The symptoms looks like that of dengue fever^{2,3}. Prevention is via mosquito control and preventing bite by infected mosquitoes. There is no specific treatment with medications used to help with symptoms⁴. Many drugs were used to control symptoms including analgesics, potent anti inflammatory agents, chloroquine, antihistamines and few cases with purgatives with or without basis by many people. Antibiotics are used only if there is co-existent bacterial infection or to minimize the duration of illness. Sometimes it will also be used to prevent secondary bacterial infections. Hence this study was aimed at analyzing the usage of antibiotics or various drugs prescribed in tertiary care hospital setup in the treatment of Chikungunya.

MATERIALS AND METHODS**Aims and objectives:**

To identify the following information in the treatment of Chikungunya:

1. List of antimicrobials used.
2. List of NSAID's used in practice.
3. List of other nonspecific drugs used to bring down the severity of illness.
4. Duration of recovery from illness.

Methodology:

Before starting the study, permission from the Institutional Human Ethics Committee was obtained. Then permission from the Medical Director of Hospital was obtained to browse through the medical records of patients. The hospital records during the period of September 2006 to March 2007 were screened for the patients suffering from Chikungunya. Details of the patients were recorded through a proforma which contained details about sex, disease and usage of drugs. The data was statistically analysed

RESULTS

Data from 71 participants were collected for the study. Out of this incidence was more in males (**Figure 1**). Data showed that males in the age

group of 21-30 were affected more with the least in the age group of 61-70. In females 31-40 age group were more affected with the least affected age group of 61-70. There were no reported incidence of Chikungunya in the age group of 0-10 in both males and females (**Figure 2**). According to the study the duration of illness has been reduced to <10 days after treatment in 92.9% of patients (**Figure 3**). In 47.9% patients antimicrobials were used (**Figure 4**). Among this Levofloxacin was used in 55.5% of patients and rest of the patients have received ceftriaxone, ofloxacin, acyclovir, ampicillin + cloxacillin, amoxicillin + clavulanic acid (**Figure 5**). NSAID's were used in 100% of the patients. Among this 63.5% of patients have received Paracetamol and 36.5% of patients have received Diclofenac sodium (**Figure 6**). Antacids were used in 46.47% of patients. Among this pantoprazole was used in 54.8% of patients and ranitidine was used in 45.2% of patients (**Figure 7**). Antihistamines were used only in 7.07% of the patients. Cetirizine was the commonly prescribed drug.

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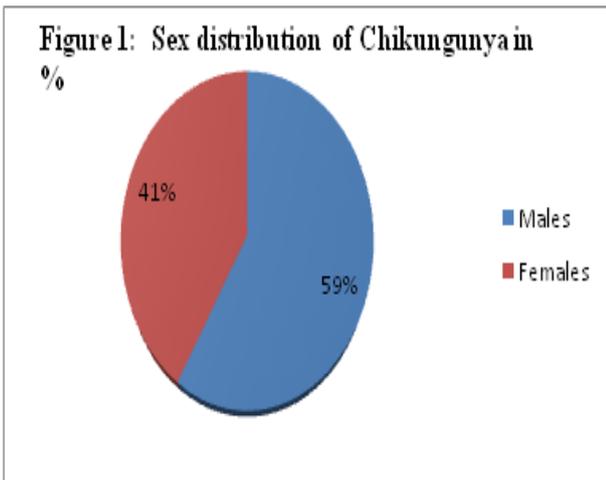


Fig 1: Percentage of sex distribution

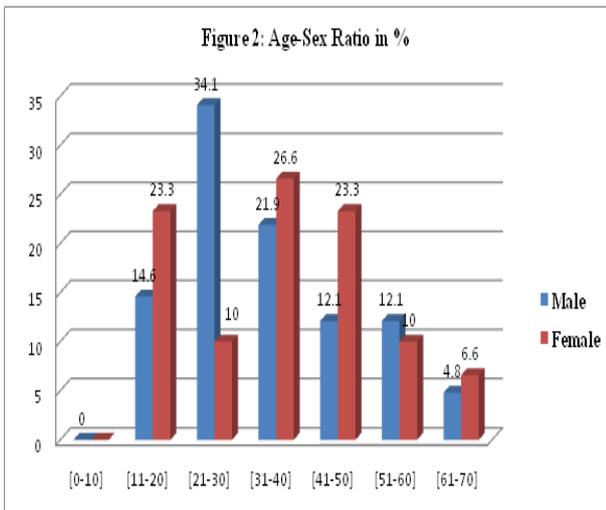


Fig 2: Percentage ratio of Age-Sex

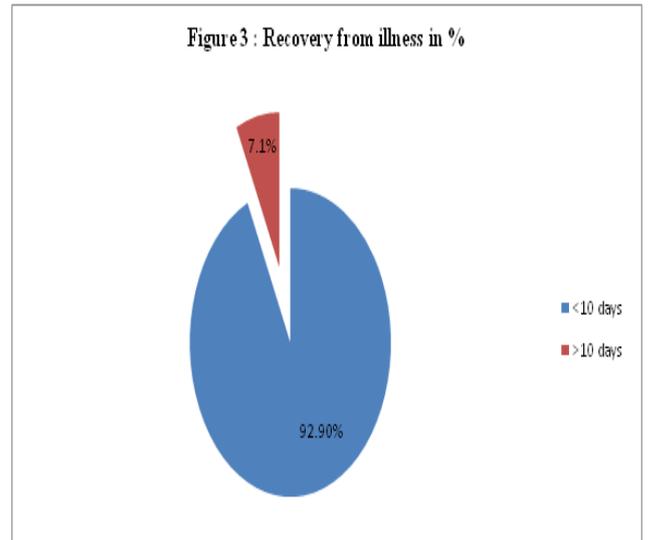


Fig 3: Percentage of illness recovery

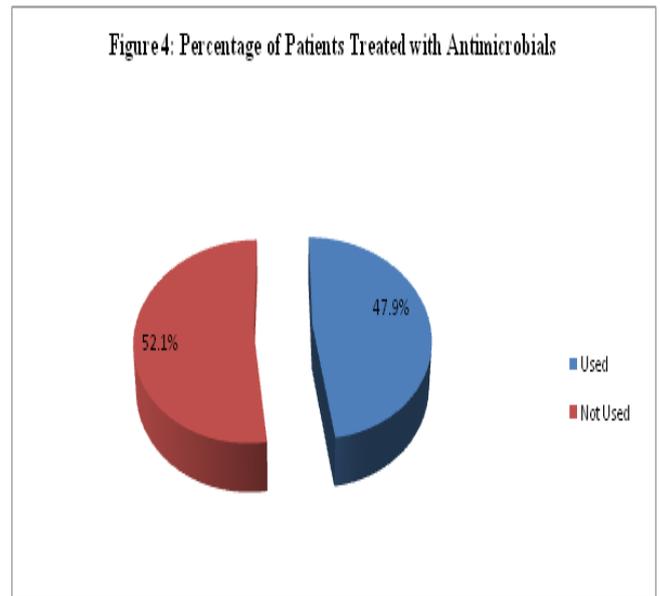


Fig 4: Percentage of patients treated with Antimicrobials

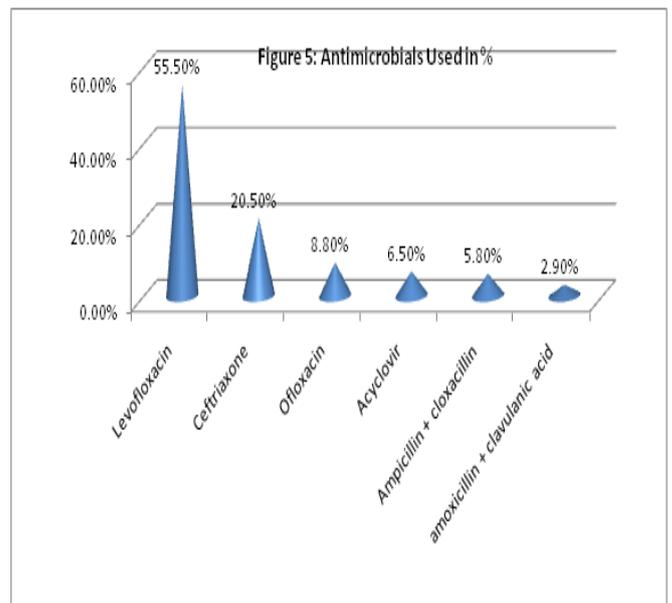


Fig 5: Percentage of Antimicrobials used

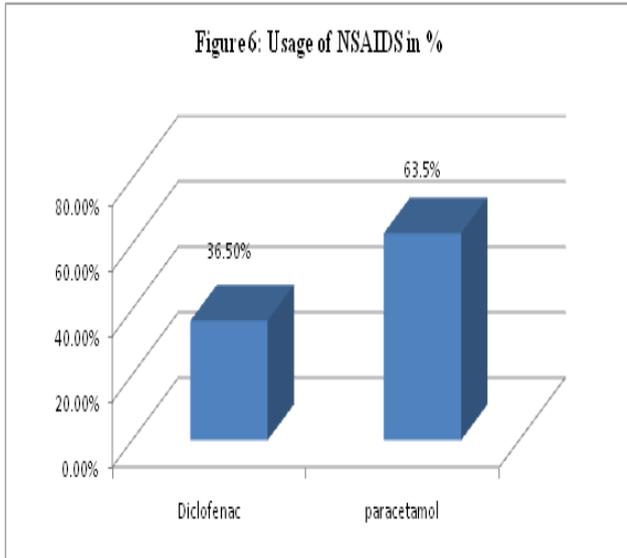


Fig 6: Percentage of NSAIDs used

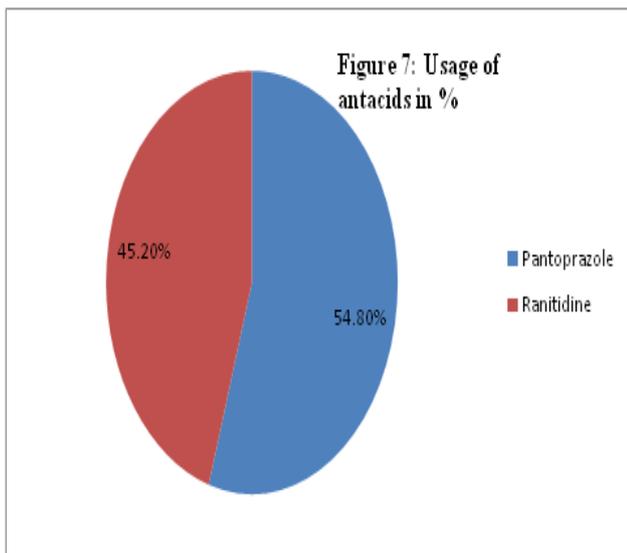


Fig 7: Percentage of Antacids used

DISCUSSION

Thus from this study it was clear that males were more suffered with Chikungunya in the age group of 21 – 30 yrs. Majority of the persons were recovered from illness within 10days. Only half of the patients were prescribed with antimicrobials so that can be useful to minimise antibiotic resistance. They were used according to hospital antibiotic policy. Fluoroquinolones and beta lactam antibiotics alone were prescribed. Paracetamol was used in majority of the patients. Pantoprazole was the commonly used antacid agent and cetirizine was the commonly used antihistamine in these patients. So to conclude that there was an effective management of Chikungunya to all the patients.

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