

CHIKUNGUNYA VIRUS INFECTION

INTRODUCTION

Chikungunya virus ("that which bends up") is of African origin spread by the mosquito *Aedes*. The *Aedes aegypti* – chikungunya virus transmission has been introduced into Asia where it is a major health problem. It causes severe polyarticular migratory arthralgia along with high fever thereby incapacitating individuals.

NORMAL RANGE

PCR	Remarks
Detected	Indicates presence of Chikungunya in the sample submitted
Indeterminate	Indicates presence of inherent inhibitors in the sample submitted
Not Detected	Indicates absence of Chikungunya in the sample submitted

CLINICAL PRESENTATION

Symptoms are very similar to those of Dengue fever, but unlike Dengue there is no hemorrhagic or shock syndrome. Full blown disease is common in adults with an incubation period of 2-3 days.

- Fever
- Severe arthralgia – migratory polyarthritits mainly affects small joints of hands, wrist, ankles and feet with lesser involvement of larger joints
- Headache
- Photophobia
- Abdominal pain
- Maculopapular rash prominent on upper extremities and face
- Epistaxis

Cause

- Bite of infected mosquito *Aedes aegypti* and *Aedes albopictus*

HIGH RISK FACTORS

- Old age
- HLA-B27 positive patients
- Mosquito breeding areas

LABORATORY DIAGNOSIS

- Leukopenia
- Elevated AST /SGOT

- Elevated C-Reactive Protein
- Mild thrombocytopenia
- Chikungunya IgM antibody
- Chikungunya virus PCR Qualitative

LIMITATIONS

- A negative PCR result does not necessarily indicate the absence of Chikungunya infection as:
 - virus is detected by PCR only during 2-9 days post infection
 - virus copy number / IgM may be below the detection limit of the assay.
- The PCR assay may detect viremia or viral shedding in asymptomatic individuals also