**Atypical and severe manifestations**
- Although most chikungunya virus infections result in fever and arthralgia, other clinical manifestations can occur.
- Atypical or severe clinical manifestations can be due to the direct effects of the virus, immunologic response to the virus, drug toxicity, or diseases unrelated to chikungunya virus infection.
- Some atypical or severe manifestations are more common in certain groups. For example, vesiculobullous lesions, febrile seizures, and meningoencephalitis have been reported in infants and young children.
- Since many atypical and severe clinical manifestations will be unrelated to chikungunya virus infection, healthcare providers should consider and evaluate for other etiologies.

### Reported atypical or severe disease manifestations of chikungunya virus infection*

<table>
<thead>
<tr>
<th>System</th>
<th>Clinical manifestations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neurological</td>
<td>Meningoencephalitis, encephalopathy, seizures, Guillain-Barré syndrome, cerebellar syndrome, paresis, palsies, neuropathy</td>
</tr>
<tr>
<td>Ocular</td>
<td>Optic neuritis, iridocyclitis, episcleritis, retinitis, uveitis</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>Myocarditis, pericarditis, heart failure, arrhythmias, hemodynamic instability</td>
</tr>
<tr>
<td>Dermatological</td>
<td>Photosensitive hyperpigmentation, intertriginous aphthous-like ulcers, vesiculobullous dermatosis</td>
</tr>
<tr>
<td>Renal</td>
<td>Nephritis, acute renal failure</td>
</tr>
<tr>
<td>Other</td>
<td>Bleeding dyscrasias, pneumonia, respiratory failure, hepatitis, pancreatitis, syndrome of inappropriate secretion of antidiuretic hormone (SIADH), hypoadrenalism</td>
</tr>
</tbody>
</table>

*Adapted from Rajapakse et al.

### Atypical or severe dermatologic manifestations of chikungunya virus infections

- Bullous lesion on infant’s leg
- Hyperpigmentation
Risk groups for severe disease

- Persons at risk for severe disease (e.g., hospitalization) include neonates exposed intrapartum, older adults, and persons with underlying medical conditions (e.g., hypertension, diabetes, cardiovascular disease).
- Mortality is rare and occurs mostly in older adults.

Pregnant women and newborns

- Pregnant women infected with chikungunya virus are not at increased risk of atypical or severe disease.
- Most pregnant women infected with chikungunya virus do not transmit the virus to the fetus.
- The highest risk occurs when pregnant women are symptomatic during the intrapartum period (i.e., 2 days before to 2 days after delivery). During the intrapartum period, half of all infected pregnant women will transmit chikungunya virus to their fetus.
- Infants infected intrapartum are often asymptomatic at birth but most develop clinical illness within 7 days after delivery.
- Common symptoms among neonates include fever, pain, rash, and peripheral edema. Some infants develop neurologic disease (e.g., meningoencephalitis, cerebral edema, intracranial hemorrhage), hemorrhagic symptoms, or myocardial disease.
- Laboratory abnormalities include elevated liver function tests, reduced platelet and lymphocyte counts, and increased prothrombin time.
- Neonates who suffer from neurologic disease often develop long-term disabilities.
- There is no evidence that chikungunya virus is transmitted through breast milk.

Treatment and clinical management

- Since no specific antiviral therapy is available, treatment is symptomatic
- Assess hydration and hemodynamic status
- Provide supportive care as needed and manage complications
- Evaluate for other serious conditions (e.g., dengue, malaria, bacterial infection) and treat or manage appropriately
- Use acetaminophen or paracetamol for fever and pain control
  - If inadequate, consider using narcotics or NSAIDs
  - If the patient is suspected of having dengue, do not use aspirin or other NSAIDs (e.g., ibuprofen, naproxen, toradol) until the patient has been afebrile ≥48 hours and does not have warning signs for severe dengue*

Selected references


*Warning signs for severe dengue include severe abdominal pain, persistent vomiting, mucosal bleeding, clinical fluid accumulation, lethargy, enlarged liver, and increased hematocrit with decreased platelet count.