CHIKUNGUNYA

INTRODUCTION

Chikungunya is a viral infection transmitted by mosquitoes. This disease is prevalent in tropical Africa and Asia but is spreading to the Americas. The word “chikungunya” means “that which bends up” and describes the severe joint pain caused by the infection. Chikungunya is sometimes confused with dengue, which causes muscle and joint pain.

TRANSMISSION

Humans become infected when bitten by certain mosquitoes (Aedes aegypti and Aedes albopictus). The mosquito larvae are frequently found in containers such as discarded tires, flowerpots, and blocked rain gutters. Mosquitoes that cause chikungunya usually bite during the daytime, with 2 peaks of biting activity: the first 2-3 hours after dawn and the mid-to-late afternoon hours. However, when indoors or during overcast days, the mosquitoes bite all day.

RISK AREAS

Chikungunya is mainly an urban disease occurring in tropical Africa, Asia, Indian Ocean islands, French West Indies, Caribbean islands, and the Americas. Cases have also occurred in Italy.

Chikungunya epidemics during 2004 through 2014 resulted in 1.4–6.5 million cases, with hundreds of imported cases reported in nearly 40 countries.

RISK FACTORS

All persons residing in or visiting an endemic area when there is ongoing transmission are at risk of acquiring chikungunya.

The risk is greatest in urban areas, especially where sanitation is poor and breeding sites for Aedes mosquitoes are numerous.

Travelers who stay in accommodation or eat in restaurants that are not protected against mosquitoes are at greater risk.

SYMPTOMS

The incubation period is 2-3 days (range 1-12 days). Onset is sudden, with fever and joint pain that can be severe. The fever may decline for 1-2 days and then recur. Many joints are affected: hands, wrists, ankles, knees, spine, shoulders, feet, and elbows. Other symptoms include headache, muscle pain, weakness, chills, and gastrointestinal symptoms. Half of patients develop a rash on the trunk and limbs.

Most patients recover from the acute illness within 7-10 days. However, symptoms can persist for 6 months or longer, especially in older patients, and can be disabling. After a year, more than 20% of patients still suffer recurrent joint pain.

Rare complications include encephalitis, hepatitis, myocarditis, renal damage, and, rarely, hemorrhage. The death rate is low for most persons but is increased in persons with underlying disease.

PREVENTION STRATEGIES
Vaccines: Several vaccines are in development, but none is currently available.

Non-vaccine: Insect precautions and personal protection measures against day-biting mosquitoes are the main prevention strategy. (See Insect Precautions.) In addition, containers with stagnant water that can serve as breeding sites for mosquitoes should be removed from the proximity of human habitations whenever possible.

NEED FOR MEDICAL ASSISTANCE

Medical assistance is not usually necessary; most chikungunya infections resolve spontaneously over a few days. Serious complications are very rare. Taking paracetamol (acetaminophen) may help relieve symptoms.