

EIN and Sun, W. What is the risk of dying if one contracts Dengue fever a second time?

Query:

A patient with serologically-confirmed dengue fever has been informed that if she contracts dengue a second time that she may die before receiving medical care given the rapidity of the hemorrhagic fever and shock syndrome.

Reply:

“Reinfection with another serotype of dengue virus may predispose a person to the development of dengue hemorrhagic fever or dengue shock syndrome, which is associated with a high mortality rate. Therefore, repeated travel to countries where dengue is endemic may put those previously infected with dengue – travelers, immigrants, and persons visiting friends and relatives – at increase risk. No data on the extent of this risk are available, and therefore no evidence-based guidelines on pretravel screening for dengue are in place.

While the risk of developing severe dengue, i.e. dengue hemorrhagic fever, is increased upon a secondary exposure to a different serotype of dengue, that risk in travelers is not very well characterized. Factors such as the serotype exposed, sequence of serotype exposures, age, co-morbidities, and others may play a role. Furthermore, risk of death from severe dengue also depends on the timeliness of diagnosis and knowledge of appropriate medical management. In health care systems knowledgeable of this disease, such as major hospitals in Thailand and Vietnam, the mortality of even dengue shock syndrome is less than 1%. For travelers, a recent case series from the European Network on Surveillance of Imported Infectious Diseases (Wichmann O, et al *J Infect Dis* 2007;195:1089-96) showed one case of dengue hemorrhagic fever in 27 travelers who had a secondary infection. There was no mortality in the 133 travelers confirmed to have had dengue.

The advice given to this patient that there is a high probability of death if she contracted dengue again is excessively alarmist. She should be advised to take seriously appropriate personal protection measures and to seek medical attention quickly for any dengue-like illness.

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