

TID-CAST Symposium

Tropical viruses in transplantation

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Viral infections are common infectious complication following solid organ transplantation. Other than cytomegalovirus and other herpesviruses, arthropod-borne viruses (arboviruses) include Dengue (DEN) virus, Chikungunya (CHK) virus and Zika (ZIK) virus are of great importance as tropical diseases in Asia. These mosquito-borne alphaviruses transmitted by *Aedes aegypti* and *Aedes albopictus* have caused epidemic disease in many countries in Asia and Australia. The climate changes and accelerating travel has led to geographic extension of arbovirus infection into solid organ transplant community, with an extraordinary increase in number of infected arboviruses cases recently. The detection and diagnosis of arboviruses infection can be challenging especially in settings where the viruses are endemic, given the possibility of overlapping clinical presentation and cross-reactivity between flavivirus antibodies and/or antigens. Coinfection of arboviruses is also possible because they share the same mosquito vectors. Healthcare providers in Asia should familiarize themselves with the main clinical features (non-specific finding including; fever, headache, rash and body ache) and potential complications of the infection (for example; severe thrombocytopenia in dengue virus infection, meningoencephalitis and Guillain–Barre syndrome associated with zika virus infection, and prolonger arthralgia in chikungunya virus infection). There is no specific treatment for arboviruses infection. Viremia last about 7 days for DEN and ZIK. However, ZIK persists longer in semen and urine. For CHK, the range of viremia is 4-21days. In endemic area, use of donors with febrile illness suggestive of active arbovirus infection should be avoided. Living and deceased donors from nonendemic areas may be assessed for exposure risk by screening for recent travel history. Arbovirus infections should be included in the differential diagnosis of infection in transplant patients so that appropriate testing and treatment can be offered.