

*Abstract.* Acute Zika virus (ZIKV) infection may mimic dengue virus (DENV) infection. We aimed to study the clinical difference of ZIKV disease among suspected non-severe DENV patients comparing children and adults. Patients with acute illness suspected of DENV disease plus no evidence of plasma leakage at the Bamrasnaradura Infectious Diseases Institute, Nonthaburi, Thailand, were enrolled from December 2016 to September 2018. Clinical data including DENV rapid diagnostic test (RDT) results were collected. Zika virus diagnosis was confirmed by real-time reverse transcription PCR on urine. Of 291 (180 pediatric and 111 adult) cases enrolled, 27 (10 pediatric and 17 adult) confirmed ZIKV cases were found. Rash was more frequent among pediatric ZIKV than pediatric non-ZIKV cases (100% versus 60%,  $P = 0.01$ ). Rash, arthralgia, and conjunctivitis were more frequent among adult ZIKV than adult non-ZIKV cases (100% versus 29.8%, 64.7% versus 26.6%, 52.9% versus 9.7%, all  $P < 0.01$ , respectively). The median (interquartile range [IQR]) duration of rash was 4.5 (3.0, 7.25) days and 6.0 (4.5, 7.0) days in pediatric and adults ZIKV cases, respectively. Pediatric ZIKV cases had more fever (100% versus 58.5%,  $P = 0.03$ ) but less arthralgia (20% versus 64.7%,  $P = 0.04$ ) and less conjunctivitis (10% versus 52.9%,  $P = 0.04$ ) than adult ZIKV cases. No ZIKV cases with DENV RDTs performed around day 3 of illness were positive for dengue nonstructural protein 1 (NS1) antigen. In dengue-endemic settings, rash and fever in children, and rash, arthralgia, and conjunctivitis in adults, particularly if rash persists for  $\geq 3$  days, plus negative dengue NS1 Ag during early febrile phase should prompt ZIKV diagnostic testing.