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SEROTYPING ACUTE DENGUE INFECTIONS

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Neutralization of Dengue virus by human sera from acute infection showed a type-specific response, also known as the serotype specific humoral immune response against one of the four Dengue viruses (DENV14). It is a challenging task to identify serotypespecific antibody in larger cohorts by new methods other than the more complicated standard virus neutralization assays. By using such a new method it would be possible to become an overview which Denguevirus is neutralized in a local population and which one is not. We have developed such a test and analyzed serotype-specific responses in about 1600 acute sera from Dengue patients. Data of the serotyping study were compared to the Dengue virustype present in acute infection. Acute infected Dengue patients showed a serotype response different to the virustype present in acute infection. Thus, Dengue patients are infected by one of the Dengue virustypes but the neutralizing activity in acute and also convalescent sera was mainly directed to one of the other Dengue virustypes. We suggest that a less efficient neutralizing activity to one of the Dengueviruses can be seen as a risk factor to become infected by this specific Denguevirus.