Detection and investigation of TT virus infection in Taiwanese population.

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Abstract

he prevalence rate of TTV investigated by polymerase chain reaction (PCR) showed tremendous variations among different ethnic populations and patients with different diseases. These various results indicated that TTV DNA detection is highly dependent on the primers used for the PCR assay and on the source DNA samples. Our present study was conducted to examine the TTV prevalence in the apparently healthy subjects and patients with hepatitis B, C virus infection, hemodialysis or others in Taiwan using highly sensitiveand specific primers. A total of 58 DNA samples extracted from serum, plasma and buffy coat were individually subjected to 2 rounds of PCR amplification. PCR performed at temperatures ranging from 52℃ to 60℃ produced expected products without any obvious difference. Using primers for untranslated region (UTR) amplification, TTV DNA was detected in the serum, plasma and buffy coat fraction with a positive rate of 69%, 76% and 98%, respectively. However,only 31%, 36% and 60% respectively showed positive results when primers (N22) specific for the open reading frame (ORF) region 1 were applied. Viewed as a whole, we concluded that TTV infection is highly prevalent in the general population in Taiwan and is unlikely involved in the pathogenesis of liver function.