Z615 Comparison of the PCR/RFLP-based Identification and Neutralization Test of Enteroviruses Isolated from Patients with Aseptic Meningitis in Korea

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In present study, we have attempted to certify PCR-RFLP as a practical method for rapid typing of enteroviruses causing aseptic meningitis in Korea. By blind examinations of more than 80 clinical isolates from patients with aseptic meningitis, we have compared the results from the serotyping by neutralization tests with the genotyping by PCR-RFLP that was newly developed in this study. Among the 80 cases of isolates, which had been previously typed by neutralization test, only 41 (50%) were matched with the typing by RFLP procedure. These results clearly demonstrate that the serotypes and genotypes of enteroviruses are not the same. Therefore, the genotyping of enteroviruses by PCR-RFLP as a rapid and simple identification method would not be an alternative to the serological typing by a neutralization test although it would be applicaple as another criterion for classification of enteroviruses. [Supported from MOHW, No. HMP-96-D-6-1054]

Z616 Mutation Screening of Vasopressin V2 Receptor Gene in Five Korean Males with NDI

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Nephrogenic diabetes insipidus (NDI) is, in the large majority of the cases, an X-linked recessive disorder in which the kidney fails to concentrate urine in response to arginine vasopressin. The V2 vasopressin receptor gene (AVPR2), which mediates the antidiuretic effect of vasopressin, has been cloned and mapped to Xq28. The V2 receptor belongs to the family of G-protein-coupled receptors that contain seven distinct transmembrane domains, and is encoded by three exons. In this study, four unrelated families including five males with typical symptoms of NDI such as polyuria, polydipsia and fever were examined. We performed mutaion screening of their AVPR2 genes using PCR-SSCP and PCR- directed automatic sequencing. For PCR-SSCP analysis, three exons of the gene were amplified by 5 primers which generate partially overlapped products in nucleotide sequences. SSCP of the amplicons showed mobility shifting in exon 2 of three NDI males and detected that their mothers are responsible for their NDI traits. No SSCP variance was observed in other two patients. With further mutation screening using PCR-directed automatic sequencing, new mutations in exon 2 and exon 3 were identified in five NDI males. These results indicate that NDI in five Korean males is caused by disruption of the AVPR2 gene. [Supported from MOHW, No. HMP-98-M-1-0010]