

## **Molecular detection and epidemiology of enteroviruses in Korea, 2001-2010**

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Enteroviruses (EVs) are among the most common viruses infecting humans. The genus Enterovirus (family Picornaviridae) includes 4 species of human EV (A, B, C, and D). Most clinical manifestations are asymptomatic, but these viruses are implicated in a wide variety of clinical syndromes, ranging from minor febrile illness to severe, potentially fatal conditions such as neuromuscular complaints.

In this study, we have analyzed the epidemic patterns of enteroviruses in Korea during recent decade, 2001-2010 and we have detected 4,384 EVs from 14,483 patients during 2001-2010 in Korea and most common clinical manifestation is aseptic meningitis (n=4,380), and followed by HFMD/Herpangina (n=1,616). Among enterovirus-positive samples, 2,875 EV serotypes were determined by viral VP1 semi-nested RT-PCR. Most strains belonged to HEV-B (n=1,935, 70.0%) followed by HEV-A (n=816, 28.7%) and HEV-C (n=124, 4.3%). Predominant enterovirus type was EV71 (n=414, 14.4%) followed by E30 (n=379, 13.2%) and E6 (n=245, 8.5%).

EVs are an important cause of aseptic meningitis and encephalitis, and HFMD. The understanding of the recent 10 year epidemic pattern of circulating enteroviruses in Korea may be helpful in predicting the outcome of aseptic meningitis, encephalitis, and HFMD and development of antiviral treatments and vaccine.

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