

MLEE and PFGE characterization of *Neisseria meningitidis* serogroup C and B isolated in the Slovak Republic in 1998

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Summary

*In the Slovak Republic the incidence and mortality of invasive meningococcal disease increased after 1995 when the new meningococcal clone of *Neisseria meningitidis* C:2a:P1.2,P1.5, ET-1.5/37 emerged. The new clone spread between 1995 and 1998 throughout the whole country.*

Morbidity of invasive meningococcal disease was 1,6/100 000 of the population and fatality reached the highest level of 23 % in the Slovak Republic in 1998. The new clone caused a new emergent epidemiological and clinical situation. The occurrence of invasive meningococcal disease caused by this clone has continually risen since 1995. In 1998 72 % of all diseases in Slovakia were caused by serogroup C. The emerging clone C:2a:P1.2,P1.5 represented 74 % of the serogroup C isolates. Clonality and genetic diversity of 15 selected meningococcal strains causing invasive meningococcal disease was compared by multilocus enzyme electrophoresis (MLEE) and DNA macrorestriction analysis by pulsed-field gel electrophoresis (PFGE). The strains of serogroup C and B were isolated in all regions of Slovakia in 1998. The majority of isolates belong to hypervirulent clone ET-15 as determined by MLEE. By PFGE a higher degree of diversity was observed.

Key words: meningitis, *Neisseria meningitidis*, Slovak Republic

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