

NEW SEROTYPE CANDIDATE OF *NEISSERIA MENINGITIDIS*

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SUMMARY

In spite of a large collection of MAbs used for the whole-cell ELISA (WCE) in the National Reference Laboratory for Meningococcal Infections in Prague 50–80% of *N. meningitidis* strains isolated in the Czech Republic remained non-typable (NT) and/or non-subtypable (NST). A project focused on the problem of NT/NST *N. meningitidis* was started and the new serotype candidate designated "22" resulted from this research. This paper presents the method of preparing and testing of the monoclonal antibody (MAb) specific for this new serotype and the first experience acquired from using it. The new serotype-specific MAb is of IgG3 class, does not react with any serotype/subtype reference strains and reacts in WCE with the strain used for its production and with some other NT/NST strains in the dilution 1:1,000. A collection of 97 *N. meningitidis* B:NT strains isolated from cerebrospinal fluid and/or blood of patients with invasive disease in the Czech Republic since 1973 to 1995 was serotyped using the new serotype "22"-specific MAb and 37 of these strains (38.2%) gave positive WCE result. The total number of 59 *N. meningitidis* B:NT strains isolated in 1995 from various clinical situations were serotyped and 26 of them (44.1%) were positive with the new serotype "22"-specific MAb. Seven of these *N. meningitidis* B:"22" strains were isolated from cerebrospinal fluid or blood of patients with invasive meningococcal disease and prevailed in the age group of 0–4 years (5 cases). The significance of the new serotype candidate was underlined recently, when this serotype "22" was recognized in *N. meningitidis* B strain isolated from a died 10 months old boy. These results indicate the epidemiological and clinical significance of the new serotype candidate "22" in the Czech Republic.

Key words: *Neisseria meningitidis*, new serotype candidate, monoclonal antibody, whole-cell ELISA, immunoblotting

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