

Antigenic expression of LPS from brazilian meningococcal strains, production of monoclonal antibodies as subsidy to epidemiological studies

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The profile of antigen expression among meningococci is important for epidemiology surveillance and vaccine development. To this end two new mouse monoclonal antibodies (MAbs) have been produced against *Neisseria meningitidis* lipopolysaccharide (LPS). The MAbs were reactive against outer membrane antigens and present bactericidal activity. They were tested against different meningococcal strains 118 strains of serogroup A, 66 strains of serogroup C (1972 to 1974) and 293 strains of serogroup B (1992) meningococci by Dot-ELISA. Our results demonstrated that the expression of LPS (immunotypes) in the *N meningitidis* Brazilian strains studied is heterogeneous. The prototypes and subtypes of B:4:P1.15, B:4:P1.9, B:4:P1.7, B:4:P1.14,

B:4:P1.16, B:4:NT and B:NT:NT were detected in *N.meningitidis* B serogroups. The strains C:2a:P1.2 and A:4,21:P1.9 were dominant in the C and A serogroups respectively. FACS analysis showed that the MAbs immunotypes recognized LPS immunotypes on the surface of *N.meningitidis*. The immunotype L₃₇₉ was strongly expressed in 90% of *N.meningitidis* B compared with 67% in serogroup C and 18% in serogroup A, whereas L₁ and L₈ were weakly to moderately expressed by 7% and 15% in serogroup B and 3% serogroup A and was not expressed in serogroup C. The importance of establishment a broad set of immunotypes antigens characteristics of the prevalent strain during one epidemic is important for vaccine preparation.

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