TITLE: Serogroup Distribution of *Neisseria meningitidis* Causing Invasive Disease in the Metropolitan Region of Salvador in the Post-vaccine Period.

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ABSTRACT:

Meningococcal disease (MD) is a global problem that occurs in all countries, associated with high morbidity and mortality. Meningococcal C Conjugate Vaccine (MenC) was introduced into the local immunization program in February 2010 for children under five years of age, prior to the national program. The aims of this work were to describe the serogroup of meningococcal isolates in Salvador, Bahia, looking for the impact of vaccination, and to characterize serogroup "A" isolates of N. meningitidis, identified during active surveillance from the period 2011 to 2016. The six most common capsular types (A, B, C, W, Y and X) were tested by slide agglutination from the isolate and/or Real-time PCR (RT-PCR) from the CSF. Of the 455 confirmed cases of MD there was a predominance of serogroup C with 58.2% (265/455), followed by group B in 8.6% (39/455), W in 3.5% (16/455), Y in 1.8% (8/455) and A in 1.5% (7/455) of the cases. Capsular type was undetermined for 20.2% (92/455) of the samples and 6.2% (28/455) were of unknown capsular type. The frequency distribution of serogroups was similar to that described by other studies at the national and state level, except for the identification of the serogroup A. After the epidemic of the 1970s, meningococcal serogroup A practically disappeared in Brazil and previous surveillance studies conducted in Salvador also not detected it. Concluding, studies of epidemiology are important to evaluate the efficacy of vaccines, and to monitor the sprouting of isolates from others serotypes (non-type C) to evaluate if it is necessary a vaccine's composition intervention.

Keywords: Meningococcal Disease; Meningococcal C Conjugate Vaccine; Meningitis.

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