

S.PNEUMONIAE NASOPHARYNGEAL CARRIAGE AND ACUTE OTITIS MEDIA

V. Usonis, S. Petraitiene, D. Vaiciuniene, D. Rimkute

Clinic of Pediatrics, Vilnius University, Vilnius, Lithuania

Introduction: The role of *S.pneumoniae* (SP) nasopharyngeal carriage in development of acute otitis media (AOM) is not well described.

Methods: Children below 6 years of age with acute respiratory disease participated in the clinical study evaluating distribution of serotypes of SP in naso-pharynx. The sub-cohort of children with the final diagnosis of AOM was analysed.

Results: AOM was diagnosed in 41 out of 590 enrolled into the study.

Positive samples for SP nasopharyngeal carriage during the first days of illness had 24 children. (58.5%). There was no difference according children age, gender, day-care centres attendance, siblings, previous antibiotic use in SP positive and negative groups. Children with AOM and SP carriage had longer history of illness, 20% of them were treated with two different antibiotics, whilst none was given antibiotics in SP negative group. Clinical symptoms (body temperature, redness of mucosa, nose secretion) during the first days of illness did not let us know about diagnosis. Children with positive SP more often had signs of bronchitis. Eleven different SP serotypes were found (3, 6A, 6B, 6C, 11, 14, 15, 18F, 19F, 23F, G+) and most of them are present in pneumococcal conjugated vaccines.

Conclusions: SP carriage in naso-pharynx may be related to the prolonged course of AOM and more complicated antibacterial treatment. Clinical signs during the first days of illness do not indicate the future severity of AOM. Conjugated pneumococcal vaccines can be highly effective in preventing of AOM.