

O205

Oral Session

Bacterial pediatric infections

## SEROTYPING OF *S.PNEUMONIAE* STRAINS ISOLATED FROM BLOOD CULTURES OF PAEDIATRIC POPULATION OVER THE LAST DECADE

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**Introduction:** *S.pneumoniae* is still a major cause of morbidity and mortality worldwide. It is responsible for serious infections such as bacteraemia, meningitis, pneumonia and suppurative acute otitis media that sometimes can be life threatening mainly for children but for adults too.

**Aim:** Serotype distribution of *S.pneumoniae* isolates causing invasive pneumococcal disease in children ≤ 10 years old before and after the introduction of the conjugated pneumococcal vaccine (PCV) into the Greek National Vaccination Program (January 2006).

**Method:** This retrospective study included pneumococcal strains isolated from blood cultures of children hospitalized in our hospital from 2004 till 2013. The bacterial identification was confirmed by conventional microbiologic techniques while serotyping was performed by latex agglutination and the Quellung reaction using antisera (Statens, Seruminstitut, Copenhagen, Denmark).

**Results:** 56 strains of *S.pneumoniae* were isolated from blood cultures of children (36 boys and 20 girls) aging from 2 months to 9 years old. The patients suffered from bacteremia, meningitis, pneumonia and complicated suppurative acute otitis media. Serotyping was performed to 49 strains.

The most frequent isolated serotypes after 2006 were 19A(23%), 7F (21%), 3(7.8%)and 19F(5.2) ,which are included in the 13-valent vaccine (Prevenar 13). We also found serotypes causing the above infections but not included in the vaccine such as 1, 4, 6B, 9V, 11A, 14, 15F, 18C, 22F,24F,25A,31,33F,38 with a frequency of 2.6% each. Before 2006 the most frequent serotypes involved in the previously mentioned infections were 14(57.1%) and 18C(14.3%) while less frequent were serotypes 6B(7.1%), 9V(7.1%), 19F(7.1%) and 23F(7.1%).

**Conclusion:** The epidemiological monitoring of the serotypes responsible for invasive pneumococcal disease in children should be continuous because it is changing throughout the years and depends upon the use of the conjugated vaccine.