Abstract

Macrolide-resistant Streptococcus pneumoniae emerged in Argentina in 1995, representing 26% of invasive infection isolates in children under 5 years old. The objectives of this study were to describe the prevalence of ermB and mefA genes in macrolide-resistant S. pneumoniae isolates from acute otitis media (AOM) and to determine their genetic relatedness. Between May 2009 and August 2010, 126 S. pneumoniae isolates from 324 otherwise healthy children with a first episode of AOM were included. Twenty-six of these isolates (20.6%) were resistant to erythromycin. Most frequent serotypes were: 14 (46.2%), 6A (23.1%), 19F (7.7%) and 9V (7.7%). Twenty (76.9%) carried the mefA gene, 5 (19.2%) have the ermB gene, and 1 (3.9%) both ermB + mefA. Ten clonal types were identified, mostly related to Sweden15A-25/ST782 (SLV63), CloneB6A/ST473 and England14-9/ST9. This is the first study assessing the mechanisms of macrolide resistance in pneumococci isolates from pediatric AOM in Argentina and their genetic relatedness.

Keywords

Streptococcus pneumoniae, Acute otitis media, Macrolide resistance.