
特別講演(抄録)

Challenges in the treatment of otitis, sinusitis and tonsillitis in an era of increased antimicrobial resistance

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The presentation summarizes the aerobic and anaerobic microbiology and antimicrobials therapy of acute and chronic otitis, sinusitis and tonsillitis and their complication. *Streptococcus pneumoniae*, *Haemophilus influenzae*, and *Moraxella catarrhalis* are the major aerobic pathogens recovered in otitis media and sinusitis. Endogenous oropharyngeal anaerobes (*Fusobacterium* spp., and pigmented *Prevotella* and *Porphyromonas* spp. or AGNB) are commonly recovered in chronic otitis media, sinusitis and tonsillitis. The increasing antimicrobial resistance of many bacterial pathogens has made the treatment of these infections more difficult. The greatest challenges in the treatment of otitis media, sinusitis and tonsillitis is the increase in the involvement of penicillin resistant *Streptococcus pneumoniae*, methicillin resistant *Staphylococcus aureus*, and beta-lactamase producing bacteria. Beta-lactamase production is an important mechanism of resistance of both aerobic (*S. aureus*, *H. influenzae* and *M. catarrhalis*.) and anaerobic (anaerobic Gram-negative bacilli) organisms. Beta-lactamase producing bacteria can not only protect themselves from beta-lactam antibiotics but can also shield other penicillin-susceptible organisms from the activity of these agents. This mechanisms can account for some of the clinical failures in the treatment of otitis media, sinusitis and tonsillitis. Adequate management of these infections necessitates the administration of agents effective against resistant organisms. The growing inability of penicillin to eradicate Group A beta hemolytic streptococci tonsillitis may lead to recurrent tonsillitis. The bacterial interactions between Group A beta hemolytic streptococci and members of the pharyngo-tonsillar bacterial flora can explain some of these failures. The interactions include the "shielding" of Group A beta hemolytic streptococci from penicillins by beta-lactamase producing bacteria that colonize the pharynx and tonsils, the absence of normal flora organisms that interfere with the growth of Group A beta hemolytic streptococci, and the co-aggregation between *M. catarrhalis* and Group A beta hemolytic streptococci. Antimicrobials that can eradicate BLPB and spare the interfering bacterial flora are more successful in eradicating GABHS tonsillitis and reduce the need for tonsillectomy.