Efficacy of solithromycin (150 mg/kg/day) administered via orogastric tube against NTHi-EOM due to S. pneumoniae, including erythromycin A resistant and β-lactamase positive and negative nontypeable Haemophilus influenzae (NTHi).

Methods: Isolates of NTHi or S. pneumoniae selected with specified antimicrobial susceptibility patterns were inoculated directly into the bullae of adult chinchillas challenged with NTHi isolates with MIC of ≤0.125 µg/ml. Only 50% of animals with disease due to S. pneumoniae with mefE resistance were sterilized at that dose. Differences in time to killing are observed when comparing S. pneumoniae with mefE resistance; strains with mefE resistance demonstrated delayed killing compared to those with mefE consistent with the reduced sterilization in our animal model.

Conclusions

- A 3-day oral regimen of solithromycin at 150 mg/kg/daily sterilized MEF in chinchillas challenged with NTHi isolates with MIC of ≤0.125 µg/ml.
- In vitro studies of respiratory isolates of NTHi demonstrated MIC of 2 µg/ml. Solithromycin at 180 mg/kg/daily sterilized EOM due to S. pneumoniae with MIC of 0.125 µg/ml; HOWEVER, only 50% of animals with disease due to S. pneumoniae with mefE resistance were sterilized at that dose.

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