

عنوان مقاله:

Management of Typhoid Fever and Bacterial Meningitis by Chloramphenicol in Infants and Children

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نویسنده:

Gian Maria Pacifici - via San Andrea ۳۲, ۵۶۱۲۲ Pisa, Italy

خلاصه مقاله:

Chloramphenicol inhibits protein synthesis in bacteria and is usually bacteriostatic but is bactericidal against Haemophilus influenzae, Streptococcus pneumoniae, and Neisseria meningitis. Chloramphenicol penetrates all body tissues well. The cerebrospinal fluid concentration averages 60% of the serum level, while brain levels are 9 times higher because of high lipid solubility of this drug. Chloramphenicol acts primarily by binding reversibly to the 50S ribosomal subunit. This antibiotic is the drug of choice for the treatment of typhoid and paratyphoid fevers and bacterial meningitis. Chloramphenicol possesses a broad-spectrum of antimicrobial activity. Strains are considered sensitive if they are inhibited by chloramphenicol concentrations of $\leq 8 \mu\text{g/ml}$. Neisseria gonorrhoea, Brucella species, Bordetella pertussis, gram-positive cocci, Clostridium species, and gram-negative rods including Bacillus fragilis are inhibited by chloramphenicol. Most anaerobic bacteria including Mycoplasma, Chlamydia, Rickettsiae, Vibrio cholera, Escherichia coli and Klebsiella pneumoniae are inhibited by this antibiotic. The doses of chloramphenicol are 40.5 mg/kg/day for neonates and 75.5 mg/kg/day for older children. The therapeutic concentrations of chloramphenicol are 10-25 $\mu\text{g/ml}$. Peak therapeutic concentrations are obtained in 60% and therapeutic trough concentrations are found in 42% of children. Children affected by typhoid fever are cured by chloramphenicol and the sensitivity to this antibiotic is 100%. Acute bacterial meningitis is the most dangerous infectious disease in children. The causative organisms are gram-positive and gram-negative bacteria, and chloramphenicol is effective in killing these microorganisms. The aim of this study is to review the management of typhoid fever and bacterial meningitis in infants and children by chloramphenicol.

کلمات کلیدی:

Children, Chloramphenicol, effects, Infants, Meningitis Typhoid-Fever

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