primary studies - published RCT

Ciprofloxacin as antipseudomonal treatment in patients with cystic fibrosis.

Code: PM9002119 **Year:** 1997 **Date:** 1997 **Author:** Schaad UB

Study design (if review, criteria of inclusion for studies)

randomized trial

Participants

44 patients with cystic fibrosis who had completed a 14-day regimen of intensive hospital therapy with intravenous ceftazidime and amikacin, supplemented by amikacin inhalation therapy: 21 Group I and 23 Group II.

Interventions

oral ciprofloxacin alone (Group I) and ciprofloxacin plus inhaled amikacin (Group II).

Outcome measures

sputum cultures, antibiotic resistance, clinical symptoms, regimens tolerance, adverse events

Main results

Negative sputum cultures were achieved in 34 patients (77%) at the end of intensive therapy (19 Group I and 15 Group II) and were sustained after 3 months of maintenance therapy in 5 of the 19 responders in Group I (26%) and in 8 of the 15 responders in Group II (53%). Resistance to ciprofloxacin was found in 7 of 31 (23%) sputum isolates at the end of ciprofloxacin therapy. During maintenance therapy, continued improvement in clinical symptoms was observed in 14 patients in both treatment groups; 6 in each group had further improvements whereas only 4 patients were clinical failures. There was no correlation between clinical outcome and either elimination of Pseudomonas aeruginosa from sputum culture or development of ciprofloxacin resistance. Both maintenance regimens were well-tolerated by this population of patients which included 28 children younger than 15 years of age. There were no severe or serious adverse events, no signs of quinolone-related arthropathy and no growth impairment.

Authors' conclusions

Ciprofloxacin was efficacious, safe and well-tolerated as maintenance antipseudomonal therapy in cystic fibrosis patients. These results suggest further evaluation of ciprofloxacin as an oral maintenance therapy is warranted.

http://dx.doi.org/10.1097/00006454-199701000-00032

See also

Pediatr Infect Dis J. 1997 Jan;16(1):106-11; discussion 123-6.

Keywords

Adolescent; Adult; Amikacin; Anti-Bacterial Agents; Bacterial Infections; Ceftazidime; Child; Ciprofloxacin; Combined Modality Therapy; Infection; pharmacological_intervention; Pseudomonas aeruginosa; Pseudomonas; Respiratory Tract Diseases; Respiratory Tract Infections; Inhalation OR nebulised; Aminoglycosides; Cephalosporins; Quinolones;