primary studies - published RCT

Ultrashort Echo-Time Magnetic Resonance Imaging Is a Sensitive Method for the Evaluation of Early Cystic Fibrosis Lung Disease.

Code: PM27551814 **Year:** 2016 **Date:** 1983 **Author:** Roach DJ

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

randomized, double-blind trial

Participants

111 cystic fibrosis patients with predominant and susceptible pseudomonas in their sputum.

Interventions

azlocillin, piperacillin, ceftazidime, cefsulodin or cefoperazone

Outcome measures

Results were evaluated by a clinical, radiological and bacteriological scoring system

Main results

the best results were obtained with ceftazidime, followed by cefsulodin and piperacillin. However, pseudomonas was eradicated in only 22 (23%) of the cases with the most active drugs and persisted or reappeared in all the cases 1 to 3 months later. Ceftazidime always eradicated Staph. aureus and Haemophilus influenzae associated with pseudomonas. Similar eradication occurred nearly always with cefsulodin but rarely with the other drugs. No serious drug reaction occurred but a later fever and rash with piperacillin, transient diarrhoea with cefoperazone, vomiting with cefsulodin, and very frequent eosinophilia with ceftazidime should be mentioned.

Authors' conclusions

These five drugs offer, in varying degree, alternatives to traditional anti pseudomonas antibiotics in cystic fibrosis pulmonary infections, but they should be used only against well-proven resistant strains. Ceftazidime is best and cefotaxime and latamoxef (moxalactam) least useful.

http://dx.doi.org/10.1513/AnnalsATS.201603-203OC

See also

Ann Am Thorac Soc. 2016 Aug 23.

Keywords

Adolescent; Anti-Bacterial Agents; Azlocillin; Bacterial Infections; Cefoperazone; Cefotaxime; Cefsulodin; Ceftazidime; Cephalosporins; Child; Infection; Moxalactam; Penicillins; pharmacological_intervention; Piperacillin; Pseudomonas aeruginosa; Pseudomonas; Respiratory Tract Diseases; Respiratory Tract Infections; Exacerbation; Haemophilus influenzae; Staphylococcus aureus;