primary studies - published RCT

Bronchial constriction and inhaled colistin in cystic fibrosis.

Code: PM15705991 **Year:** 2005 **Date:** 2005 **Author:** Alothman GA

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

prospective placebo-controlled clinical trial with crossover design

Participants

Subjects were recruited as follows: high risk (HR) for bronchospasm due to a personal history of recurrent wheezing, a family history of asthma and/or atopy, or bronchial lability, as demonstrated in pulmonary function tests; or low risk (LR) without these characteristics.

Interventions

challenge tests with 75 mg colistin in 4 mL saline solution and a placebo solution of the same osmolarity using a breath-enhanced nebulizer for administration.

Outcome measures

FEV1

Main results

The mean FEV(1) (expressed as the mean [+/- SD] fall from baseline) of the HR group (n = 12) fell 12 +/- 9% after placebo was administered, and fell 17 +/- 10% after colistin was administered. For the LR group (n = 8), the mean FEV(1) fell 9 +/- 4% following placebo administration and 13 +/- 8% following colistin administration. There was a greater number of subjects in the HR group compared to the LR group, which had a mean fall in FEV(1) of >/= 15% (p

Authors' conclusions

The results demonstrated that colistin can cause bronchospasm, particularly in those patients with coexisting CF and asthma.

http://dx.doi.org/10.1378/chest.127.2.522

See also

Chest. 2005 Feb;127(2):522-9.

Keywords

Adolescent; Anti-Bacterial Agents; Bacterial Infections; Child; Colistin; Infection; Inhalation OR nebulised; nebuliser; non pharmacological intervention - devices OR physiotherapy; pharmacological_intervention; Pseudomonas aeruginosa; Pseudomonas; Respiratory Tract Diseases; Respiratory Tract Infections; other anti-bacterial agents;