primary studies - published RCT

Eradication of persistent methicillin-resistant Staphylococcus aureus infection in cystic fibrosis.

Code: PM30131297 **Year:** 2018 **Date:** 2018 **Author:** Dezube R

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

Double-blind, randomized, placebo-controlled study

Participants

29 patients with CF and documented persistent MRSA infection.

Interventions

A comprehensive 28-day treatment regimen with or without inhaled vancomycin for eradication of MRSA. All participants received oral antibiotics, topical decontamination, and environmental cleaning and were randomized to receive inhaled vancomycin or inhaled placebo.

Outcome measures

The primary outcome was the difference in MRSA eradication rates one month after completion of the treatment protocol.

Main results

29 participants were randomized. Four subjects in the inhaled vancomycin group required withdrawal from the study for bronchospasm before outcome data were collected and were excluded from analysis. There was no difference in the primary outcome: 2/10 (20%) of subjects in the intervention group and 3/15 (20%) in the placebo group had a MRSA negative sputum culture one month after treatment. There were no statistically significant differences in the rates of MRSA eradication at the end of treatment or three months after treatment completion.

Authors' conclusions

This study suggests that persistent MRSA infection is difficult to eradicate, even with multimodal antibiotics. The use of a single course of inhaled vancomycin may not lead to higher rates of MRSA eradication in individuals with CF and may be associated with bronchospasm.

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See also

J Cyst Fibros. 2018 Aug 18. pii: S1569-1993(18)30702-1. doi: 10.1016/j.jcf.2018.07.005.

Keywords

Anti-Bacterial Agents; pharmacological_intervention; Respiratory Tract Infections; Respiratory Tract Diseases; Infection; Bacterial Infections; Staphylococcus aureus; Vancomycin; other anti-bacterial agents; Inhalation OR nebulised; Powders;