primary studies - published RCT

Lung deposition of inhaled tobramycin with eFlow rapid/LC Plus jet nebuliser in healthy and cystic fibrosis subjects.

Code: PM20884302 **Year:** 2011 **Date:** 2011 **Author:** Lenney W

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

single-dose, open-label, two-way crossover study

Participants

13 participants aged 18 - 65 years. 7 with CF with chronic PsA infection and FEV1 equal to or above 25% predicted. 6 healthy volunteers with FEV1 equal to or over 80% predicted and BMI within ± 25% of ideal.

Interventions

subjects were randomised to receive tobramycin via eFlow rapid or LC Plus jet nebuliser.

Outcome measures

Drug deposition in the lung using gamma scintigraphic imaging, nebulisation times, pharmacokinetics, and safety were evaluated.

Main results

In CF patients, whole-lung deposition was 40% less with the eFlow rapid compared with LC Plus nebulisers (8.9 +/- 0.8%, and 15.1 +/- 6.0%, p>0.05). Nebulisation time was shorter with eFlow rapid compared to LC Plus (7.0min versus 20.0min, p

Authors' conclusions

eFlow rapid reduces the nebulisation time of tobramycin and can potentially improve compliance in patients with CF.

http://dx.doi.org/10.1016/j.jcf.2010.08.019

See also

J Cyst Fibros. 2011 Jan;10(1):9-14.

Keywords

Adolescent; Adult; Aged; Anti-Bacterial Agents; Inhalation OR nebulised; nebuliser; non pharmacological intervention - devices OR physiotherapy; pharmacological_intervention; Tobramycin; Bacterial Infections; Respiratory Tract Infections; Respiratory Tract Diseases; Infection; Aminoglycosides;