

primary studies - published RCT

Predicting response to rhDNase and hypertonic saline in children with cystic fibrosis.

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

randomized crossover trial

Participants

48 CF children were allocated consecutively

Interventions

12 weeks of once-daily 2.5-mg rhDNase, alternate-day 2.5-mg rhDNase, and twice-daily 5 ml of 7% HS

Outcome measures

Forced expiratory volume in 1 sec (FEV1) and forced vital capacity (FVC) were measured at baseline and then at 6 and 12 weeks into each treatment period.

Main results

Lung function response to the drugs at 6 weeks was highly predictive of response at 3 months. There was some evidence that response to HS was worse in patients with lower baseline lung function. However, there was no association between response to alternate-day or daily rhDNase and baseline characteristics.

Authors' conclusions

Response to rhDNase and HS at 6 weeks was highly predictive of response at 3 months. For daily and alternate-day rhDNase, at least, the drug needs to be administered for at most 6 weeks initially to assess long-term response to treatment. Response to treatment could not be reliably predicted from baseline characteristics.

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See also

Pediatr Pulmonol. 2004 Apr;37(4):305-10.

Keywords

Adolescent; Child; Deoxyribonuclease; Drug Administration Schedule; Airway clearance drugs -expectorants- mucolytic- mucociliary-; hydration; Hypertonic Solutions; Inhalation OR nebulised; nebuliser; non pharmacological intervention - devices OR physiotherapy; pharmacological_intervention; Recombinant Proteins; Respiratory System Agents; Dornase alpha; Pulmozyme;