EUROPEAN RESPIRATORY journal
FLAGSHIP SCIENTIFIC JOURNAL OF ERS

The efficacy of inhaled hypertonic saline in children with cystic fibrosis who receive daily DNase.

M Y Gencoglu, G D Tuğcu, Ş S Akyan Soydaş, G Cinel, N Emiralioğlu, E Yalçın, N Kiper, V Şen, D Ufuk Altıntaş, H Çokuğraş, A Ayzıt Kılınç, H Yazan, G Ünal, A I Yılmaz, H T Çağlar, E Damadoğlu, I Irmak, E Demir, G Öztürk, A Bingöl, E Başaran, N Sapan, A T Aslan, P Asfuroğlu, K Harmancı, M Köse, M Hangül, A Özdemir, G Özcan, Z G Gayretli, Ö Keskin, H Yüksel, Ş Özdoğan, E Topal, G Çaltepe, D Can, P Korkmaz Ekren, M Kılıç, T Şişmanlar Eyüboğlu, S Pekcan, N Çobanoğlu, E Çakır, U Özçelik, D Doğru

European Respiratory Journal 2022 60: 4008; **DOI:** 10.1183/13993003.congress-2022.4008

Article | Info & Metrics

Abstract

Obective: Hypertonic saline(HS) and recombinant human deoxyribonuclease(rhDNase) are used to force airway clearance in cystic fibrosis(CF) patients. We aimed to evaluate the efficacy of ihaled HS therapy in CFpatients receiving daily rhDNase.

Method: A retrospective case-control study was conducted by using the data of our national CF registry. The efficacy of HS was analyzed among patients who used only HS(n:35) and who didnot receive any hydrator therapy(n:227)(control group) between 2017-2019. The efficacy of HS was mainly evaluated by comparing pulmonary functions and body mass index(BMI).

Result: Patients(n:271) who had annual records between 2017-2019 and used neither inhaled HS nor inhaled mannitol in2017 were included in the study. The ppFEV1,FEV1z-scores of the group in whom HS treatment was initiated were significantly lower than the control group(p:0.002,p:0.037);presence of chronic bacterial colonization(p:0.010),inhaled antibiotic usage(p<0.001),O2 and NIMV requirements(p:0.030,p<0.001) were significantly hihgher also. At the end of the study in the records of2019, absolute changes in FEV1,FEV1/FVCz-scores and BMIz-score did not differ significantly between groups. Absolute changes in FVCwere better in the control group(p:0.006). The paired analyses showed no significant improvement in spirometry indices of the HS treament group. There was a significant improvement in pulmonary functions and BMI in the control group at the end of the study.

Conclusions: HS was started mostly in patients who had severe clinical status;but unfortunately HS didnot significantly improve the FEV1,FVC,FEV1/FVC and BMI of CF,whose respiratory functions are unaffected or mildly affected.

Children Chronic diseases Spirometry

Footnotes

Cite this article as *Eur Respir J* 2022; 60: Suppl. 66, 4008.

This article was presented at the 2022 ERS International Congress, in session "-".

This is an ERS International Congress abstract. No full-text version is available. Further material to accompany this abstract may be available at www.ers-education.org (ERS member access only).

Previous

Back to top

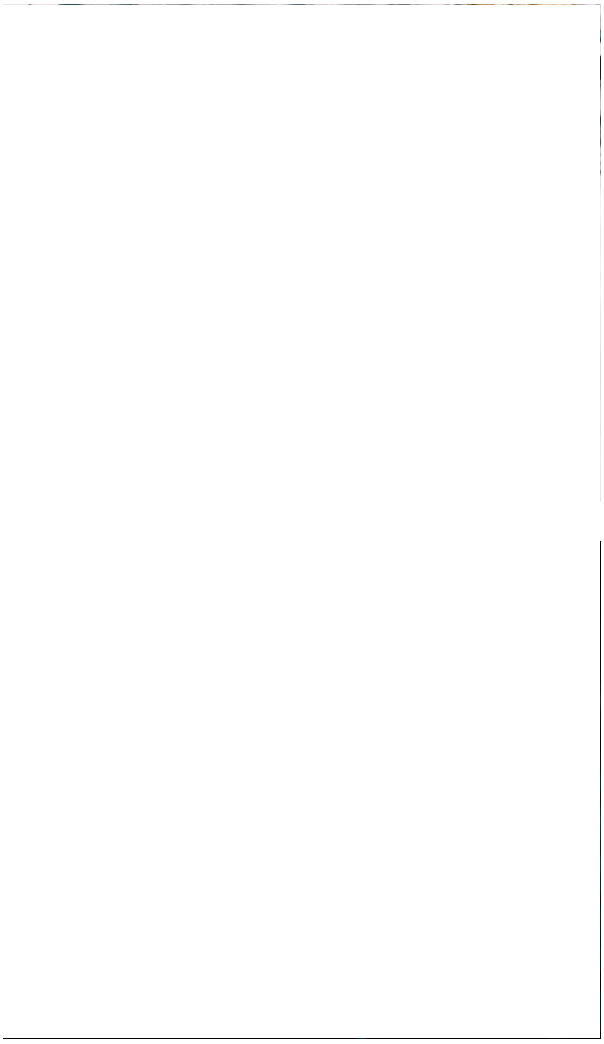
Vol 60 Issue suppl 66 Table of Contents

Table of Contents
Index by author

Email Request Permissions
Citation Tools Share

Jump To

Article
Info & Metrics



More in this TOC Section

Related Articles

No related articles found.

Google Scholar

Navigate

Home
Current issue
Archive

About the ERJ

Journal information
Editorial board
Reviewers
Press
Permissions and reprints
Advertising

The European Respiratory Society

Society home
myERS
Privacy policy
Accessibility

ERS publications

European Respiratory Journal
ERJ Open Research
European Respiratory Review
Breathe
ERS books online
ERS Bookshop

Help

Feedback

For authors

Instructions for authors
Publication ethics and malpractice
Submit a manuscript

For readers

Alerts
Subjects
Podcasts
RSS

Subscriptions

Accessing the ERS publications

Contact us

European Respiratory Society
442 Glossop Road
Sheffield S10 2PX
United Kingdom
Tel: +44 114 2672860
Email: journals@ersnet.org

ISSN

Print ISSN: 0903-1936
Online ISSN: 1399-3003