

primary studies - published, non RCT

The Role of Bronchoscopy in the Management of Children With Cystic Fibrosis.

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

Observational study, prospective., multicenter

Participants

2 Italian CF centers. A total of 16 patients in center 1 and 17 in center 2

Interventions

Data of patients who received bronchoscopy were collected. Bronchoalveolar lavage was performed during the procedure including airway clearance with mucolytics, inhaled antibiotics, and/or surfactant instillation.

Outcome measures

Admission to the pediatric intensive therapy unit; growth of *Aspergillus fumigatus*; percent predicted forced expiratory volume in the 1 second; pulmonary exacerbations.

Main results

A total of 16 patients in center 1 and 17 in center 2 underwent, respectively, 28 and 23 bronchoscopic procedure in the study period. Five patients in each center underwent >1 procedure. All procedures were generally well tolerated. No patient required admission to the pediatric intensive therapy unit. In 19.6% of bronchoalveolar lavages, growth of *Aspergillus fumigatus* was evident, although not detected by sputum analyses. After the procedure, an increase in mean percent predicted forced expiratory volume in the 1 second >10% was observed, and a significant decrease in pulmonary exacerbations yearly was evident.

Authors' conclusions

Based on the results, we suggest bronchoscopy is not to be considered an obsolete tool, and it remains useful in CF management, although in selected cases. We encourage to support longitudinal observational studies to standardize the procedure, focusing on the choice of drugs to be instilled, modalities and timing of serial bronchoscopy and subsequent follow-up in selected severe clinical conditions.

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See also

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Keywords

Anti-Bacterial Agents; pharmacological_intervention; Respiratory Tract Infections; Respiratory Tract Diseases; Infection; Bacterial Infections; non pharmacological intervention - diagn; Bronchoscopy; Airway clearance drugs -expectorants- mucolytic- mucociliary-; Respiratory System Agents;