

primary studies - published RCT

## Non-invasive evaluation of steatosis and fibrosis in the liver in adults patients living with cystic fibrosis.

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

Parallel group. Single-blinded (investigator). Placebo control.

### Participants

Criteria for CF chronic lung disease, pancreatic insufficiency and elevated sweat chloride. 28 participants (14 male). Age range 7 - 24 years. All had *P. aeruginosa* in sputum culture. Mean baseline FEV1 78% (SD 21) and 70% (SD 22) predicted in treatment groups.

### Interventions

Tobramycin 80 mg or normal saline twice daily for mean duration of study of 30 months (saline control) and 33 months (tobramycin).

### Outcome measures

Lung function (FEV1 and FVC), clinical scores, sputum culture and sensitivity (24 months), exacerbations (hospitalisation for respiratory deterioration), ototoxicity and renal toxicity.

### Main results

No significant differences were found between the two groups at enrollment. The treatment group showed no change, while the control group had a significant decline in both pulmonary function and clinical status over the study period. Individually, 11 of 12 patients in the control group showed deterioration, while 9 of 15 in the treatment group with susceptible *P. aeruginosa* at enrollment acquired resistant organisms. There was no evidence of significant nephro- or ototoxicity.

### Authors' conclusions

Although inhaled tobramycin appeared to arrest the decline in pulmonary status, further work is required to identify patients most likely to respond.

<http://dx.doi.org/10.1016/j.jcf.2025.02.007>

### See also

J Cyst Fibros. 2025 Feb 15:S1569-1993(25)00060-8. doi: 10.1016/j.jcf.2025.02.007.

### Keywords

Adolescent; Adult; Anti-Bacterial Agents; Bacterial Infections; Child; Infection; Inhalation OR nebulised; pharmacological\_intervention; *Pseudomonas aeruginosa*; *Pseudomonas*; Respiratory Tract Diseases; Respiratory Tract Infections; Tobramycin; colonization; Aminoglycosides;