primary studies - published RCT

Intravenous immune globulin treatment of pulmonary exacerbations in cystic fibrosis.

Code: PM2915293 **Year:** 1989 **Date:** 1989 **Author:** Winnie GB

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

double-blind study

Participants

CF patients at least 12 years of age, with chronic respiratory tract colonization with Pseudomonas aeruginosa and hospitalized with a reduction in pulmonary function. experimental subjects: n = 8. control subjects: n = 8

Interventions

20% dextrose (control subjects: n = 8) or 100 mg/kg IVIG (Gamimune) (experimental subjects: n = 8) on days 1, 2, and 3; all patients received intravenous antibiotics and chest physiotherapy.

Outcome measures

clinical oucomes; pulmonary function, C3 level, circulating immune complex levels, side effects.

Main results

There were no differences between groups on admission; patients had moderate to severe disease as measured by Shwachman-Kulczycki scores and pulmonary function tests. Both groups improved clinically. The IVIG treatment was associated with significant increases in forced vital capacity and forced expiratory volume in 1 second (p less than 0.01) and with greater percent improvement in forced expiratory volume and forced expiratory flow (25% to 75%) (p less than 0.05). There was no effect on length of hospitalization (18.3 +/- 11.9 days control vs 17.6 +/- 6.5 experimental). The C3 level was decreased at discharge in IVIG-treated patients; circulating immune complex levels were unchanged. One patient in each group experienced side effects. There were no differences on follow-up at 6 weeks.

Authors' conclusions

IVIG infusion early in treatment for pulmonary exacerbations in cystic fibrosis patients with moderate to severe disease may be associated with greater improvement in pulmonary function than standard treatment alone.

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See also

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Keywords

Bacterial Infections; Immunization; Immunoglobulin G; Immunoglobulins; Infection; Intravenous; pharmacological_intervention; Pseudomonas aeruginosa; Pseudomonas; Respiratory Tract Diseases; Respiratory Tract Infections; Exacerbation; Colonization;