

primary studies - published RCT

Cystic fibrosis: enhanced theophylline metabolism may be linked to the disease.

Code: PM3046811

Year: 1988 **Date:** 1994

Author: Knoppert DC

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

Randomised controlled trial.

Participants

42 participants enrolled, 4 withdrew (n = 38 prophylaxis = 18, 'as required' = 20). Similar mean ages at enrolment (7 weeks for prophylaxis, 5 weeks for 'as required'). Followed up to age 2 years. Data collected at 6 months, 1 & 2 years. Infants with CF diagnosed by neonatal screening.

Interventions

Continuous oral flucloxacillin versus intermittent antibiotics 'as required'.

Outcome measures

Primary outcome 1. Lung function. Secondary outcomes: Growth, Inpatient days, Courses of 'as required' oral antibiotics, Participants with isolates of common pathogens, P. aeruginosa, MRSA.

Main results

There was no significant difference in birth weight, genotype, immunoreactive trypsin concentration, neonatal history, symptoms at diagnosis, pancreatic enzyme supplementation, or parental smoking history between the groups. Infants in group E had more frequent cough and a greater number of Staphylococcus aureus isolates than infants in group P. More infants of group E were admitted to hospital, had higher admission rates during the second year (19 v 5), for longer periods (6.4 v 2.2 days), despite receiving more than double the number of courses of antibiotics than group P infants (in addition to flucloxacillin).

Authors' conclusions

All newborn infants in East Anglia are screened for cystic fibrosis by blood immunoreactive trypsin assay at 7 days. Thirty eight infants with cystic fibrosis were randomised. Continuous prophylactic flucloxacillin from early diagnosis of cystic fibrosis is associated with improved clinical progress during the first two years of life.

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See also

Clin Pharmacol Ther. 1988 Sep;44(3):254-64.

Keywords

Anti-Bacterial Agents; Bacterial Infections; Continuous; Drug Administration Schedule; Floxacillin; flucloxacillin; Hospitalization; Hospital care; Infection; Newborn; pharmacological_intervention; Respiratory Tract Diseases; Respiratory Tract Infections; Staphylococcus aureus; Intermittent; Oral; Penicillins;