primary studies - published RCT

Newborn screening for cystic fibrosis is complicated by age-related decline in immunoreactive trypsinogen levels.

Code: PM2187173 **Year:** 1990 **Date:** 1990 **Author:** Rock MJ

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

randomized, controlled study

Participants

145,024 infants. A total of 54 children with cystic fibrosis were identified in the screened and comparison groups.

Interventions

infants were screened in the neonatal period for cystic fibrosis using the 99.8 percentile (180 ng/mL) as the neonatal cutoff point.

Outcome measures

IRT levels, sweat tests

Main results

A total of 129 infants had elevated neonatal IRT levels and had negative results on sweat tests (false-positive by IRT screening). Excluding patients with meconium ileus, 4 infants with cystic fibrosis had neonatal IRT values less than 180 ng/mL, and an additional 9 infants with cystic fibrosis had values decline to less than 180 ng/mL within the first 2 1/2 months of age. The IRT values of infants with and without cystic fibrosis overlapped considerably beyond 30 days of age.

Authors' conclusions

These findings suggest that further refinement of cystic fibrosis screening methodology will be necessary to achieve an acceptable sensitivity and specificity.

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See also

Pediatrics. 1990 Jun;85(6):1001-7.

Keywords

Gastrointestinal Diseases; Infant; Intestinal Obstruction; Newborn; non pharmacological intervention - diagn; screening;