primary studies - published, non RCT

Neonatal screening for cystic fibrosis is beneficial even in the context of modern treatment.

Code: PM16202781 **Year:** 2005 **Date:** 2005 **Author:** Sims EJ

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

Prospective study - UK CF Database (UKCFD)

Participants

184 patients who underwent NBS aged 1 to 9 years in 2002 (excluding meconium ileus) were compared with matched patients who were CD in 3-year age groups (950 control subjects)

Interventions

early identification of babies with cystic fibrosis (CF) by CF newborn screening (NBS).

Outcome measures

height z-scores, Northern chest radiography scores, Shwachman-Kulczycki scores, rates of chronic Pseudomonas aeruginosa infection, % predicted forced expiratory value in 1 second or forced volume capacity.

Main results

Patients as old as 6 years who underwent NBS had significantly greater median height z-scores, less severe Northern chest radiography scores, better Shwachman-Kulczycki scores, and lower rates of chronic Pseudomonas aeruginosa infection. No difference was found for weight z-score or % predicted forced expiratory value in 1 second or forced volume capacity. Nutritional benefit was demonstrated in patients who underwent NBS and were homozygous for the DeltaF508 mutation.

Authors' conclusions

NBS segregates with better outcomes in patients as old as 6 years compared with age- and gene-matched control subjects who are CD. This cross-sectional study shows that infants who undergo screening derive nutritional benefit in improved median height and reduced morbidity.

http://dx.doi.org/10.1016/j.jpeds.2005.08.002

See also

J Pediatr. 2005 Sep;147(3 Suppl):S42-6.

Keywords

Neonatal Screening; non pharmacological intervention - diagn; screening; diagnostic procedures;