Anthropometric indicators as predictor of pulmonary function in children with cystic fibrosis

Estela Beatriz Behling , CESAN, Departament of Pediatrics, University Federal of Rio Grande do Sul, Porto Alegre, Brazil
Gabriele Carra Forte , Nutrition Course - CESAN, University Federal of Rio Grande do Sul, Porto Alegre, Brazil
Miriam Isabel de Souza dos Santos Simon , Serviço de Nutrição e Dietética, CESAN, Hospital de Clínicas de Porto Alegre, Porto Alegre, Brazil
Ingrid Dalira Schweigert Perry , CESAN, Departament f Internal Medicine, University Federal of Rio Grande do Sul, Porto Alegre, Brazil

Cystic fibrosis is one of the commonest genetically inherited diseases in the world. It is characterized by recurrent respiratory tract infections eventually leading to respiratory failure. Good nutritional status in cystic fibrosis is associated with improved clinical status and survival. The aim of this study was evaluated anthropometric indicators as predictors of lung function in Cystic Fibrosis patients. Quantitative longitudinal study with retrospective descriptive exploratory methodology was used. Data of nutritional status (weight, height), serum albumin, pulmonary function, bacterial colonization, presence of diabetes, pancreatic insufficiency and Forced Expiratory Volume in one second (FEV1) at patients between six and nine years old were collected from medical records. Analysis of variation of repeated measures of FEV1, BMI percentile, weight-for-age percentile, height-for-age percentile and weight gain showed no significant variation over time and there was no difference between gender. Albumin remained the average above 4mg/dL; however, it was not significant when compared with gender. There was no significant variation in FEV1 over time according to nutritional status, although patients at nutritional risk or malnourished presented lower values of FEV1. Analysis of lung colonization related FEV1 over time, using Generalized Estimation Equation showed significance only for the colonization by mucoid Pseudomonas aeruginosa. Results showed no association between the anthropometric and lung function assessed, possibly because of sample size and characteristics of the sample (patients in good nutritional condition and without significant respiratory disease). Keywords: cystic fibrosis, nutritional assessment, pulmonary function.

Financial Suportt: Capes, Cnqp, Fipe, Fapergs