

# Bone mineral density, lung function, vitamin D and body composition in children and adolescents with cystic fibrosis: A multicenter study

## Densidad mineral ósea, función pulmonar, vitamina D y composición corporal en niños y adolescentes con fibrosis quística

Bravo M., Paulina

Balboa, Paulina

Torrejón, Claudia

Bozzo, Rodrigo

Boza, María Lina

Contreras, Ilse

Jorquera, Pablo

Astorga, Luis

Weisstaub, Gerardo

© 2018 SENPE and Arán Ediciones S.L. Background: cystic fibrosis (CF) is the most common inherited disease in Caucasian population. Nowadays, long survival has led to the emergence of new complications, such as CF bone disease (CFBD), which is characterized by increased fracture risk. Objectives: evaluate the association of bone mineral density (BMD) with lung function and BMD with 25-hydroxivitamin D (25OHD) plasmatic levels in children/adolescents with CF. Methods: we conducted a multicenter, cross-sectional study with clinically stable CF patients between five and 18 years. Weight, height, pubertal development, BMD and body composition (DXA), pulmonary function (FEV1 and FEF25-75) and 25OHD plasmatic levels were measured. Patients answered food intake and physical activity surveys. p values under 0.05 were considered as statistically significant. Results: thirty-seven patients were enrolled, 51% with normal respiratory function. Mean BMD Z-score in lumbar spine and in total body les