267 Bronchodilator responsiveness and IgE in pediatric cystic fibrosis patients

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Bronchodilators are widely used in Cystic Fibrosis (CF), due to hyperreactivity secondary to bronchial damage and/or atopy. They improve sintomatology and prevent bronchoconstriction associated with treatments. Many show acute improvement of FEV1 following β-agonist administration, but response varies over time. A sub-group has acute airways obstruction reversible by β-agonists and atopy, often revealed by increased IgE. These patients may benefit more from bronchodilators chronic use.

Aims: To determine the prevalence of bronchodilation responsiveness and its association with IgE in CF pediatric patients.

Methods: Retrospective study of all patients over 5 years-old followed in our CF Center during 2008 that had ⩾2 lung function tests (LFT) and IgE determination. Data collected included: demographics, IgE and LFT with bronchodilation test using inhaled salbutamol. An increase in FEV1⩾10% was considered significative.

Results: 35 patients fulfilled the inclusion criteria. The median age was 13 years(±4.2). Global severety of lung disease was mild (FEV1 76.2±27.7%). Positive bronchodilation test was found in 34.2% and 11.4% mantained responsiveness in ⩾2 LFT. 42.9% patients had increased IgE, 40% of whom had bronchodilation. There was no association between increased IgE and responsiveness. Patients with bronchodilation responsiveness had lower FEV1 (74.9% vs 77%; $p > 0.05$) as did those with increased IgE (72.6% vs 78.9%; $p > 0.05$).

Discussion: In our study many patients had bronchodilator responsiveness, though few showed consistent response over time. Increased IgE prevalence was high. Both bronchodilation and increased IgE were associated with lower FEV1. Studies are needed to determine the real benefits of β-agonists use in the long term in patients with and without atopy.