

Hopes come to reality in chronic obstructive pulmonary disease patients

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Chronic obstructive pulmonary disease (COPD) affects large number of patients and is a major cause for morbidity and mortality worldwide. Airflow obstruction in COPD is generally progressive over a period of years and is only partially reversible. The reversibility of airflow obstruction in COPD is variable and controversial. Besides the decline in lung function, COPD patients experience significant limitation in their life including dyspnea, exercise capacity, frequent exacerbations and hospitalizations. Long acting bronchodilators including tiotropium, and beta agonist have being shown to impact several of these factors. Recent published studies of tiotropium 18 mcg once-daily in COPD have demonstrated improvements in dyspnea, decreases in exacerbations, and improvements in health-related quality of life. A post hoc analysis of two one-year placebo-controlled trials suggests that patients treated with tiotropium have a significant reduction in the rate of decline of their trough (i.e. morning pre-dose) FEV1 and FVC over time as compared with placebo. Bronchodilators have also been associated with a reduction of dynamic hyperinflation, increased inspiratory capacity (by reducing the functional residual capacity), decreased work of breathing, improved ventilatory capacity, and less dyspnea during activity and formal exercise testing. COPD exacerbations have an adverse effect on lung function and patients' overall well-being that last beyond the acute episode. Exacerbations have significant impact in patient's morbidity and mortality. In addition, frequent exacerbations have been shown to reduce health related quality of life as measured by the Saint George's Respiratory Questionnaire. Tiotropium has recently been demonstrated in a prospective trial to lead to reductions in COPD exacerbations. The impact of long acting bronchodilators on 2 exacerbations and health status may explain their long-term benefits and impact in lung function. However, the one-year study period may be inadequate to draw definitive conclusions regarding possible disease modification, the "Uplift" answered many of these questions.