Abstract

Objective: To evaluate beta blocker persistence six months after beta-blocker initiation or dose titration in heart failure (HF) patients with COPD compared to those without COPD. Secondary objectives included comparison of beta-blocker dose achieved, changes in left ventricular ejection fraction (LVEF) and incidence of hospitalizations or emergency department (ED) visits during follow-up.

Methods: We conducted a matched, retrospective, cohort study including 86 patients with COPD plus concomitant HF (LVEF <40%) and 137 patients with HF alone. All patients were followed in an outpatient HF clinic. Eligible patients had a documented LVEF <40% and were initiated or titrated on a beta-blocker in the HF clinic. Patients were matched based on LVEF (categorized as < 20% or 21-40%), gender, and age (> or <70 years). The primary outcome was beta blocker persistence at 6 months. Secondary outcomes were dose achieved, LVEF, and incidence of hospitalizations or ED visits. Results: There were no differences between the COPD and non-COPD groups in beta-blocker persistence at six-month follow-up (94.2% vs. 93.4% respectively, adjusted p=0.842). The proportion of patients who achieved a daily metoprolol dose equivalent of at least 100 mg was similar between the groups (adjusted in the six-month post-titration period was substantial but similar between the groups (53.5% and 48.2% for COPD and non-COPD patients, respectively, adjusted p=0.169). Conclusion: Our results support the use of beta-blockers in the population of heart failure patients with COPD and without reactive airway disease.

Keywords

Adrenergic beta-Antagonists, Heart Failure, Pulmonary Disease, Chronic Obstructive, United States.