

**[813] Outcomes of Earlier Use of Inhaled Corticosteroids among Patients Diagnosed with Moderate Chronic Obstructive Pulmonary Diseases**

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**Background:** The inhaled corticosteroids (ICSs) were recommended to use for Chronic Obstructive Pulmonary Diseases (COPD) patients with FEV1 less than predicted value of 50% (i.e., severe or Group C or D), following Global Initiative for Chronic Obstructive Lung Disease (GOLD) guidelines. In the real practice, some physicians prescribed ICSs with long-acting bronchodilators for moderate or Group A or B patients (i.e., FEV1 prediction: 50%-80%), in terms of earlier use of ICSs.

**Objectives:** The main objective of this study was to assess the outcomes of earlier use ICSs for moderate COPD patients.

**Methods:** A retrospective cohort study using the medication databases and electronic medical records obtained from China Medical University Hospital were conducted. The moderate COPD patients were identified upon their lung function following 2009 GOLD guideline. Those moderate COPD patients were grouped into either single therapy group (i.e., used long-acting bronchodilators [LAB] only) or combo therapy group (i.e., used LAB with ICS) based upon their respiratory medication use patterns since the index date in 2009. Their use of rescue medications and the number of patients occurred COPD exacerbation events (e.g., outpatient visits, ER visits, hospitalizations) were evaluated afterward for up to one year and compared using descriptive and inferential analysis approaches.

**Results:** Of 175 moderate COPD patients, 77 (44%) were in combo therapy group and their demographic and disease status were not statistically significant different from that in single therapy group. Those patients in the combo therapy group were prescribed with more rescue medications, especially oral steroids, and encountered more events of COPD exacerbation, especially ER visits and hospitalizations.

**Conclusions:** Those moderated COPD patients prescribed with combo therapy were prescribed with more rescue medications and occurred more COPD exacerbations than those who received recommended treatments. Further researches are needed to explore the contributing factors of disease exacerbation and other outcomes among moderate COPD patients receiving earlier use of ICSs.

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