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Different Non-selective β -Blocker Therapy and Risk of Chronic Obstructive Pulmonary Disease

Cheng-Yi Wang^a, Ya-Hui Wang^b, Chih-Cheng Lai^{c,*}

- ^a Department of Internal Medicine, Cardinal Tien Hospital and School of Medicine, College of Medicine, Fu-Jen Catholic University, New Taipei City, Taiwan
- b Medical Research Center, Cardinal Tien Hospital and School of Medicine, College of Medicine, Fu Jen Catholic University, New Taipei City, Taiwan
- ^c Department of Intensive Care Medicine, Chi Mei Medical Center, Liouying, Taiwan

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We read with great interest the EClinical Medicine Article reporting the use of β-blockers can lower the risk of COPD hospitalization, and death from COPD compared to users of any other antihypertensive drug [1]. However, we have one serious concern about the finding of non-selective β -blockers. In this study, the authors did the subgroup analysis according to the types of β -blockers and found that the both selective and non-selective β-blockers had significant positive effect on the outcome of COPD patients. In our previous nested case-control study based on used the Taiwan National Health Insurance Research Database [2], we found that the risks of severe acute exacerbation among the users of different non-selective β-blockers were different and labetalol and propranolol were associated with a significantly higher risk of exacerbations (OR, 1.49; 95% CI, 1.32-1.67 for labetalol; OR, 1.16: 95% CI. 1.10–1.23 for propranolol) among COPD patients. In addition, we also noted that the effects of non-selective \(\beta\)-blockers on the risk of COPD severe exacerbation varied according to patients with different cardiovascular comorbidities, including ischemia heart disease, heart failure, and atrial fibrillation. Therefore, we wonder whether the authors can do more analysis about the effect of each non-selective β -blockers in different subgroups to show consistent findings that each non-selective β -blocker can lower the risk of COPD hospitalization and death from COPD.

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Conflict of interests

All authors declared there was no conflict of interest.

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E-mail address: dtmed141@gmail.com (C.-C. Lai).

^{*} Corresponding author at: Department of Intensive Care Medicine, Chi Mei Medical Center. Liouving 73657. Taiwan.