

Introduction

Chronic obstructive pulmonary disease (COPD) and atrial fibrillation (AF) share several risk factors. Studies have shown that AF patients are associated with potentially higher bleeding and stroke risk with co-existing COPD. In this research, a real-world medication-use evaluation was conducted to explore the prescription pattern and adherence of antithrombotic agents use after the AF diagnosis in COPD patients.

Methods and Results

Using the National Health Insurance Research Database (NHIRD) from Taiwan from 2012 to 2019, a full-year observation of 3,795 newly-diagnosed AF patients comorbid with COPD was identified. Through our observation, the antithrombotic agents use in the following 1 year of AF diagnosis remain steady, composed of the increasing trend of oral anticoagulants (OAC) (including novel oral anticoagulants (NOAC)) use and diminishing trend of oral antiplatelets use. In 53% of the target population receiving OACs, the mean (SD) proportion of days covered (PDC) of OACs is 0.52 (0.32), whereas, in 41% of patients who were ever prescribed with NOACs, PDC is 0.51 (0.31).

We further evaluated the association between baseline comorbidities and the adherence level of OACs and NOACs, using a $PDC \geq 0.5$ as the cut-off point corresponding to the mean value. Baseline intracranial hemorrhage history was both associated with a higher probability of $PDC \geq 0.5$ in OAC users and NOAC users respectively (odds ratio, 95%CI: 1.31, 1.08-1.59 and 1.81, 1.03-3.20). With a widely accepted 'good' adherence cut-off point, PDC of 0.8, no observed baseline factors showed significant association with the ideal adherence.

Conclusions

This study revealed the prescription pattern and adherence of antithrombotic use in AF patients with COPD, which need more medical aids than patients with single AF. The results offered a glimpse of the real-world situation of caring for this overburdened population.