

中文題目:慢性阻塞性肺病吸入性類固醇與骨折的關係

英文題目:The relationship between inhaled corticosteroids and low energy fractures in patients with chronic obstructive pulmonary disease

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Background: Inhaled corticosteroids (ICS) play anti-inflammatory medicine in chronic obstructive pulmonary diseases (COPD). Studies investigating the relationship between ICS and fractures are scarce for an Asian population. We investigated whether ICS increased the risks of low energy fractures in patients with COPD.

Methods: We used the Longitudinal Health Insurance Database to select the patients with COPD as a base cohort. These patients aged 20 years or older with newly diagnosed fracture between 2000 and 2011 were selected for the case group. The date that fracture was diagnosed was designated as the index date. For each fracture case, 4 controls were randomly selected, frequency-matched by sex, age (every 5-year span), and index year. We used univariable and multivariable logistic regression model to calculate the odds ratio (OR) and 95% confidence interval (CI) for factors associated with the risk of fracture.

Results: A total of 1282 fracture cases and 5023 controls were enrolled. After adjustment for covariates, the multivariable logistic regression model revealed that the adjusted OR of fracture was 1.41 for ICS use (95% CI=1.24–1.60) as compared with non-ICS use. Frequency of emergency room visits and hospitalization due to acute exacerbation of COPD (adjusted OR = 1.35, 95% CI = 1.19–1.54), hypertension (adjusted OR = 1.41, 95% CI = 1.21–1.64), and osteoporosis (adjusted OR = 1.80, 95% CI = 1.57–2.07) were independent risk factors of fracture.

Conclusion: The patients with COPD using ICS are associated with a small increase of fracture risk.