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Increased mortality in patients with corticosteroid-dependent asthma: a nationwide population-based study

Hyun Lee¹, Jiin Ryu², Eunwoo Nam², Sung Jun Chung¹, Yoomi Yeo¹, Dong Won Park¹, Tai Sun Park¹, Ji-Yong Moon¹, Tae-Hyung Kim ¹, Jang Won Sohn¹, Ho Joo Yoon¹ and Sang-Heon Kim ¹

Affiliations: ¹Dept of Internal Medicine, Hanyang University College of Medicine, Seoul, Korea. ²Biostatistical Consulting and Research Lab, Medical Research Collaborating Center, Hanyang University, Seoul, Korea.

Correspondence: Sang-Heon Kim, Dept of Internal Medicine, Hanyang University College of Medicine, 222 Wangsimni-ro, Seongdong-gu, Seoul 04763, Korea. E-mail: sangheonkim@hanyang.ac.kr



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Chronic use of systemic corticosteroid (CS) was associated with increased risk of mortality in patients with asthma, with a significant dose-response relationship between systemic CS use and long-term mortality <http://bit.ly/2ku3ZJl>

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ABSTRACT

Introduction: Chronic systemic corticosteroid (CS) therapy is associated with an increased risk of mortality in patients with many chronic diseases. However, it has not been elucidated whether chronic systemic CS therapy is associated with increased mortality in patients with asthma. The aim of this study was to determine the effects of chronic systemic CS therapy on long-term mortality in adult patients with asthma.

Methods: A population-based matched cohort study of males and females aged ≥ 18 years with asthma was performed using the Korean National Health Insurance Service database from 2005 to 2015. Hazard ratio (HR) with 95% confidence interval for all-cause mortality among patients in the CS-dependent cohort (CS use ≥ 6 months during baseline period) relative to those in the CS-independent cohort (CS use < 6 months during baseline period) was evaluated.

Results: The baseline cohort included 466 941 patients with asthma, of whom 8334 were CS-dependent and 458 607 were CS-independent. After 1:1 matching, 8334 subjects with CS-independent asthma were identified. The HR of mortality associated with CS-dependent asthma relative to CS-independent asthma was 2.17 (95% CI 2.04–2.31). In patients receiving low-dose CS, the HR was 1.84 (95% CI 1.69–2.00); in patients receiving high-dose CS, the HR was 2.56 (95% CI 2.35–2.80).

Conclusions: In this real-world, clinical practice, observational study, chronic use of systemic CS was associated with increased risk of mortality in patients with asthma, with a significant dose-response relationship between systemic CS use and long-term mortality.