

Exposure of prescribed Chinese Medications among elderly patients taking digoxin

Hsiang-Wen Lin*^{1,2}, I-Wen Yu,² Man-Pin Wu,¹ Hsin-Hui Tsai^{1,2}

1.School of pharmacy and graduate institute, China Medical University

2.Department of pharmacy, China Medical University Hospital

BACKGROUND: Those elderly patients are vulnerable to digoxin toxicity due to their diminished organ functions and tendency to occur drug interactions with digoxin. The aim of this research was to describe the exposure patterns of prescribed Chinese Medications (CM) and its associated factors among elderly patients taking digoxin.

METHODS: A retrospective population-based cohort study was conducted using Longitudinal Health Insurance databases in Taiwan. Those elderly patients being prescribed with digoxin in outpatient settings during 2006 were evaluated for their concurrent use of prescribed CM (prevalence, incidence [excluding concurrent use of CM six month prior], duration). After 1 to 4 randomly matching for those CM-digoxin users and digoxin-alone users, the multivariate logistic regression was performed to explore factors associated with concomitant CM-digoxin use and exposure to specific potential interactions.

RESULTS: Of 185,076 elderly in 2006 in Taiwan, 6,364 (3.4%) used digoxin and 754 (0.4%) were CM-digoxin users. Within one-year following-up, the prevalence and incidence of concomitant CM use among digoxin elderly users were 13.4% and 7.1%, respectively. The average durations were 190.7 ± 136.7 days for digoxin elderly users, 30.8 ± 49.6 days for prevalent CM-digoxin users, and 17.25 ± 23.9 days for incident CM-digoxin users. While other factors were not statistically significant associated with incident CM-digoxin use, patients with coronary heart diseases (CAD) increased 218% likelihood of incident CM-digoxin use. Those with CAD and BPH and used more health care resources tended to use specific CM with digoxin.

CONCLUSION: With substantial amount of CM-digoxin users among the elderly, further study is needed to explore the impact of patient outcomes on concurrent use of CM with digoxin.



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