

60th Annual Scientific Session & Expo

E598

JACC April 5, 2011

Volume 57, Issue 14



GENERAL CARDIOLOGY: HYPERTENSION, PREVENTION AND LIPIDS

EFFECT OF ANNUAL INFLUENZA VACCINATION ON MORTALITY AND HOSPITALIZATION IN PATIENTS WITH CHRONIC HEART DISEASE

ACC Poster Contributions

Ernest N. Morial Convention Center, Hall F

Tuesday, April 05, 2011, 9:30 a.m.-10:45 a.m.

Session Title: Identifying Preventing and Treating Atherosclerosis in the 21 st Century

Abstract Category: 17. Risk Reduction and Rehabilitation

Session-Poster Board Number: 1149-297

Authors: *I-Fan Liu, Ching-Chou Huang, Wan-Leong Chan, Jaw-Wen Chen, Jaw-Wen Chen, Hsin-Bang Leu, Division of Cardiology, Department of Medicine, Taipei Veterans General Hospital, Taipei, Taiwan, ROC, Healthcare and Management Center, Taipei Veterans General Hospital, Taipei, Taiwan, ROC*

Background: Influenza virus-related morbidity and mortality is a serious treat to human health. Previous studies showed influenza vaccination reduced hospitalization due to chronic lung disease and all-cause mortality in elderly persons. The effect of annual influenza vaccination on patient with chronic heart disease was controversial. The purpose of this study was to evaluate the effect of annual influenza vaccination on the all-cause mortality and hospitalization due to cardiovascular disease in patients with chronic heart disease.

Methods: Between January 1997 to September 2002, patients suffered from congestive heart failure, coronary artery disease underwent coronary revascularization or myocardial infarction were identified using the National Health Insurance Research Database published by Bureau of National Health Insurance of Taiwan. Patients followed from October 2002 to September 2006. The end points included the all-cause mortality and hospitalization due to cardiovascular disease. The multivariate Cox hazard proportional regression analysis was used to estimate the effect of influenza vaccination.

Results: A total of 5048 patients were included and 872295 person-weeks were observed in this study. The influenza vaccination were significantly associated and reduction of all-cause mortality in the influenza season (October to March) (hazard ratio (HR) 0.41, 95% confidence interval (CI) 0.35-0.49) and the non-influenza season (April to September) (HR 0.78, 95% CI 0.68-0.90). In the influenza season, not the non-influenza season, the influenza vaccination can significantly reduction all-cause mortality and hospitalization due to cardiovascular disease (HR 0.84, 95% CI 0.79-0.93 vs HR 1.04, 95% CI 0.91-1.18)

Conclusion: Influenza vaccination significantly reduced the hospitalization due to cardiovascular disease in influenza season the mortality of elderly patients with chronic heart disease. Influenza vaccination is an important preventive measure in high-risk elderly patients with chronic heart disease.