TREND OF ANTIHTENYPERTENSIVE MEDICATIONS AND RISK OF STROKE AMONG HYPERTENSIVE PATIENTS IN TAIWAN: BASED ON THE NHI DATABASE

Gyu NH
Shang-Ho Hospital, TMU, School of Public Health, NDUMC, Taipei, Taiwan, Taiwan

OBJECTIVES: Hypertension (HTN) is an important and prevalent risk factor for cardiovascular diseases. In Taiwan, the prevalence of hypertension is around 21.4% and only about 40% patients with acceptable range of blood pressure control. The purpose of this study is to evaluate the trend of antihypertensive medications and also examine the risk of stroke among these HTN patients from 2001 to 2004 in Taiwan.

METHODS: Based on the National Health Insurance (NHI) database, there are 1,931,436 patients with ICD-9 coding of hypertension, we randomly selected 10% hypertensive outpatients (194,547 subjects) from the NHI claim database, after excluded those visited less than three times or without anti-HTN medication, 135,660 patients in the finally analyses. These subjects follow their HTN medications and occurrence of stroke for a 4-year period. RESULTS: Among these patients, 27.6% used only one medication and 37.0% with three or more medications for HTN. There are 9530 (4402 males and 5128 females) patients had both drug information on 2001 and 2004. The prevalence of stroke was 7.3% in 2001 and increased to 13.6% in 2004. The average out-patient medical costs for hypertension were increased from NT$15,077.07 to 19,712.11 dollars (at an exchange rate of 32 NT$ to 1 US$) from 2001 to 2004. Using Cox proportion hazard model, gender (male) and age were important factors to predict the occurrence of stroke. Comparing with beta-blocker, diuretics had higher relative risk for stroke but the risk was attenuate after adjusted for diabetes outpatients (HR = 1.3, 95% CI 0.7-2.6). CONCLUSIONS: From this study, the out-patient medical costs for hypertension were increased from 2001 to 2004 in Taiwan. However, the occurrence of stroke among hypertensive patients was also increased during this period. There was no significant protective effect for stroke among hypertensive patients using different anti-HTN medications. Further studies may be indicated to evaluate the cost-effectiveness of different medications on hypertensive-related disorders.

PODIUM SESSION II: DRUG USE STUDIES

DUI THE IMPACTS OF ABUSE OF ANTIBIOTIC THERAPIES IN CHINA
Yang L
Peking University, Beijing, China

OBJECTIVES: In the 1980s, China launched market-oriented reforms. Public hospi-

tals were encouraged to make their own incomes with the aim of mobilizing medical workers and improving hospital efficiency. Less government funding resulted in de-

cits for public health institutions, which forced hospitals to generate their own revenue by aggressively building drugs, especially antibiotics. This study was designed to evaluate the impact of inappropriate antibiotic use on inpatients’ cost during the hospitaliza-


tion. METHODS: One thousand cases with antibiotic treatment from 10 hospitals of five provinces in China in 2006. We created multivariate linear regression model for hospital cost and logistic regression model for rationality evaluation of antibiotic use. RESULTS: Finally we collected 964 valid cases. Rate of inappropriate antibiotic use was 58.4%. Costs of inpatients with inappropriate antibiotic use was as 2.75 times as the costs with appropriate use (P < 0.001). Risk factors included antibiotic prophylaxis (OR = 2.929), operations (OR = 2.44), long hospital stay (OR = 1.021 for every prolonged day) and regional factors. Protection factor was in tertiary hospital (OR = 0.510). CONCLUSIONS: This study concluded that inappropriate antibiotic use contributes to inpatients’ high cost. Efforts to control misuse of antibiotic should be pursued.

DUP THE UTILIZATION OF PROPHYLACTIC ANTITHROMBOTIC AGENTS AFTER MAJOR ORTHOPEDIC SURGERIES—A POPULATION-BASED STUDY IN TAIWAN
Yi-TY Chen LC', Cheng Li-Y
Kaohsiung Medical University, Kaohsiung, Taiwan; University of Macau, Macau, Macau

OBJECTIVES: Antithrombotic agents have been recommended to prevent venous thromboembolism (VTE) after major orthopedic surgeries, yet neither effectiveness evidence nor guidance for prophylactic antithrombotic agents is available in Taiwan. This study aims to evaluate current utilization of prophylactic antithrombotic agents after total hip and knee replacement (THR/TRK). METHODS: This retrospective cohort National Health Insurance database dataset including 1,000,000 beneficiaries randomly sampled in 2005 from nationwide population and followed longitudinally from 1995 to 2008. Adults hospitalized for THR or TRK were identi-


fied by procedure codes from April 2003 to June 2008. Patients with VTE, bleeding events, or antithrombotic prescriptions within 90 days preadmission were excluded. Eligible patients’ characteristics, medication during operation, and antithrombotic prescription up to 30 days post-admission were collected, presented in descriptive statistics, and stratified by different operations. RESULTS: Of all, 1026 THR (41.03% women) and 2401 TRK (75.31% women) were identified, with mean age of 56.3±6