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Title: EFFICACY OF THE TRIVALENT INFLUENZA VACCINATION IN THAI PATIENTS WITH HEMODIALYSIS OR KIDNEY TRANSPLANT COMPARED WITH HEALTHY VOLUNTEERS

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INTRODUCTION AND AIMS: An outbreak of influenza A especially the H1N1 viral strain caused high morbidity and mortality. A new trivalent influenza vaccine includes antigens from the 2009 pandemic H1N1 influenza A, seasonal Influenza A and Influenza B. However, the efficacy of the vaccine in patients with HD or KT has been uncertain. The purpose of the present study was to evaluate the immune response to trivalent influenza vaccination in Thai patients with HD or KT compared with healthy volunteers.

METHODS: This was a cross-sectional study in Thai healthy volunteers and patients with HD and

เสนอโดยนายอุดม ไกรฤทธิชัย นายแพทย์ทรงคุณวุฒิ โรงพยาบาลราชวิถี

ในการประชุม World Congress of Nephrology 2013

ซึ่งจัดขึ้นระหว่างวันที่ ๓๑ พฤษภาคม ๒๕๕๖ ถึงวันที่ ๔ มิถุนายน ๒๕๕๖ ณ เขตบริหารพิเศษฮ่องกง

KT who received the trivalent influenza vaccine provided by the Ministry of Public Health of Thailand from 1 November 2011 to 31 December 2011. Each subject was injected intramuscularly with one dose (0.5 milliliter) of trivalent influenza vaccine containing viral strains recommended by the WHO for the 2011 influenza season (southern hemisphere). Blood samples before and 6 weeks after the vaccination were measured for immune response using a hemagglutination-inhibition antibody assay.

RESULTS: Subjects consisted of 30 healthy volunteers, 30 patients with HD and 30 patients with KT. Prevalence of pre-vaccination seroprotective (SP) immunity in each group (healthy volunteers, HD, KT) was as follows: against H1N1 (33.3%: 23.3%: 10.0%), H3N2 (80.0%: 26.7%: 23.3%) and B (60.0%: 20.0%: 3.3%) viral strains, respectively. Those who were seronegative (SN) before testing positive after one dose of this vaccine were as follows: H1N1 (100.0%: 73.9%: 74.1%), H3N2 (66.7%: 86.4%: 34.8%) or B (58.3%: 66.7%: 48.3%) viral strains, respectively. The healthy group showed significantly higher SP immune response for H1N1 than the HD and KT groups ($p=0.023$). The HD group had significantly higher SP immune response for H3N2 than the KT groups ($p=0.001$). Immune responses for the B vaccine in all groups were not different. No major adverse event was found in any group.

CONCLUSIONS: Immune response for H1N1 vaccine in the HD and KT groups was slightly less than that of the healthy group. Immune response for H3N2 vaccine in the KT groups was less than in the healthy and HD groups. Immune responses for B vaccine in all groups were not different.