Effect of Hormone Replacement Therapy on Incidence of Four Major Cancers of Postmenopausal Women in Korea

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ABSTRACT

INTRODUCTION: To assess the effect of hormone replacement therapy (HRT) on the occurrence of cancer in Korean postmenopausal women. METHODS: We used a cohort dataset of Health examination DB from the National Health Insurance Service, which included 514,866 subjects from 2002 to 2013. We chose women aged 40-69 between 2002 and 2003 (n=168,043). Follow-up cancer diagnosis was carried out up until 2013. We used a nested case-control design because both groups have to match the exposure period. To adjust for any potential confounders, a propensity score matched analysis was carried out using the logistic regression model and 1:3 propensity-matched groups. We used the Cox proportional regression model to calculate the hazard ratio (HR).

RESULTS: There were 9,764 cases of HRT and 27,818 cases of never user between 2002 and 2003. During 11-year total follow-up period, 3,515 (9.35%) cases of primary cancer were identified. On the basis of survival analysis, we adopted the Cox proportional hazards model and found that HRT was negative associated with cancer occurrence (HR: 0.80, 95%CI: 0.73, 0.88, p=0.012). Especially the incidence of lung, colorectal stomach and breast cancer were significantly negative associated with HRT. The type of HRT is also one of the major interesting. As a result, HRs were decreased by tibolone and oestrogen-progestine user.

DISCUSSION: HRT showed some protective effect on all 4 kinds of cancers and exerted their effect differentially by regimen, dosage, duration of HRT.

KEYWORDS: cancer, hormone replacement therapy, tibolone

Effectiveness of Ovitrap Surveillance in an Urbanised Outbreak Area in Gombak.

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ABSTRACT

INTRODUCTION: In Malaysia, dengue is predominantly an urban disease and Ae. aegypti is the main reported vector. Gombak is an urban district in Selangor with multiple recurring dengue outbreak ecosystem. The assessment of practicality of ovitrap as a surveillance system was studied to appraise the importance of ovitrap as an early detection tool in dengue prevention and outbreak control mechanism.

METHODS: This study utilised Bandar Baru Selayang (Zon A) data, which derived from ovitrap surveillance records from February to November 2018, and all registered dengue confirmed cases from 1st January 2016 till 31st March 2019, extracted from e-dengue. Google Earth was used to map cases and Aedes sp. positive area. For ovitrap surveillance, a fixed number of 100 ovitraps were placed and analysed weekly. Preventive activities were executed each time when positive Aedes sp. identified in ovitrap. RESULT: Data was analysed using Microsoft excel. During the 40-week study, positive ovitrap with Aedes sp was identified intermittently for 28 weeks. It was noted 86% of the ovitrap placed outdoor was positive compared to only 14% placed indoor. Preventive activities implemented were able to avert cases successfully for the first 21 weeks and reduced severity of outbreak by 75% compared to same time period for 2016 and 2017. DISCUSSION: Ovitrap is an effective and promising tool in dengue surveillance provided prompt and effective preventive activities are executed.

KEYWORDS: Ovitrap, surveillance, dengue outbreak, urban, ecosystem