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A RETROSPECTIVE DATABASE STUDY TO INVESTIGATE THE MORBIDITY AND PHARMACOLOGICAL INTERVENTION OF PULMONARY ARTERIAL HYPERTENSION IN JAPAN
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OBJECTIVES: Although the number of patients with PAH who were certified as patients of Sudden and Intractable Diseases is annually provided by the Ministry of Health, Labor and Welfare (MHLW) in Japan, the morbidity rate and treatment situation for PAH has not been clearly investigated yet. This study aimed to investigate the morbidity rate of PAH using Japanese health insurance data and the pharmacological intervention for PAH was also investigated among those with PAH.

METHODS: The Japanese healthcare database which contains approximately 2.1 billion data points has not been made public. However, the Japan Health Insurance Research Organization (JHIRO) database, the largest database of PAH that was used for this study. The patients with PAH who were newly diagnosed as Pulmonary Hypertension (PH) between September 1, 2011 and August 31, 2012 was prescribed at least 1 anti-PAH drug was extracted. The patients with PH were identified using the International Classification of Disease (ICD)-10 (I27.2, I27.3, I27.4, I27.5, I27.6, I27.7, I27.8, I27.9 and P293) or by free format diagnosis name including “Pulmonary Hypertension”.

RESULTS: Of approximately 1.1 million person-years of observation, 34 were identified as newly diagnosed PAH patients. Therefore, the crude rate of PAH morbidity was 30.4 per 1,000,000 person-years. The commonly used medicament as the first treatment among these 34 patients were Beraprost (70.6%), Sildenafil(20.6%), Tadalafil(9.1%) and Bosentan(5.9%).

CONCLUSIONS: This is the first report to show the morbidity rate of PAH in Japan. This study revealed that Beraprost was the most commonly used first PH treatment agent in Japan in the real-world data setting, although Sildenafil and Bosentan are recommended to be used as the 1st line treatment in the Guideline for “Treatment of Pulmonary Hypertension” (JCS2012). In order to improve the quality of PAH treatment and the patients’ outcome, it is highly important to increase awareness of the recommended treatment and fill the gap between the guideline and actual clinical use of these drugs.

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INCREASED RISK OF ARRHYTHMIA IN PATIENTS WITH PSORIASIS: A MATCHED COHORT STUDY
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OBJECTIVES: Inflammation contributes to the pathogenesis of both psoriasis and arrhythmia, and psoriasis has been shown to be associated with substantial cardiovascular morbidity and mortality. On the other hand, however, only a few small studies have investigated the risk of arrhythmia in psoriasis. The aim of this study was to determine whether patients with psoriasis have an increased risk of arrhythmia.

METHODS: A retrospective, population-based matched cohort study of patients with psoriasis was conducted from January 1, 2003, to December 31, 2011. New-onset psoriasis patients (n=40637) and psoriasis-free matched controls (n=162548) were followed, with a mean follow-up of 6.41 years. Diagnoses and prescriptions of the patients were obtained from the National Health Insurance Research Database (NHIRD), Taiwan. Patients with psoriasis were classified as severe if they received a systemic antipsoriatic therapy and/or phototherapy or otherwise mild. Risk of arrhythmia was analyzed by using a multivariable Cox proportional hazards regression model.

RESULTS: There were 3510 arrhythmia (9.62%) within the psoriasis patients and 11612 (7.14%) arrhythmias within the comparison subjects, and the incidences per 100000 person-years were 1541.37 and 1106.09, respectively. After adjusted for comorbidities and medications, the incidence risk of arrhythmia was increased in all groups of psoriasis patients compared to the controls. The adjusted hazard ratios (95% confidence intervals) for arrhythmia were 1.30 (1.25 to 1.35), 1.31 (1.25 to 1.38), 1.21 (1.09 to 1.34), 1.37 (1.16 to 1.62) and 1.29 (1.24-1.34) in the overall, mild, severe psoriasis, psoriasis patient with psoriatic arthritis (PsA), and psoriasis patients without PsA (PsC), respectively.

CONCLUSIONS: Patients with psoriasis have a higher risk of developing arrhythmia, independent of traditional cardiovascular risk factors. Moreover, the risk of arrhythmia in PsA was higher than PsC. Increased awareness of the arrhythmia risk in the cardiovascular assessment in psoriasis patients is recommended.

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LIFE’S SIMPLE 7 AND CARDIOVASCULAR DISEASE RISK KNOWLEDGE IN HONG KONG
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OBJECTIVES: This study aimed to investigate the correlation between cardiovascular disease risk factors and Life’s Simple 7 (LS7) in Hong Kong – young adults, middle aged, and the elderly.

METHODS: Young adults and middle-aged adults were identified from the on-campus health check at the Chinese University of Hong Kong. Elderly subjects were recruited from the community centers in Hong Kong. Subjects were interviewed using the LS7 and face-to-face discussion to assess knowledge of cardiovascular disease risk factors, lifestyle behavior and risk knowledge were obtained through a validated questionnaire. The body mass index, random capillary blood glucose, blood cholesterol and blood pressure were measured during the on-campus health check and community outreach sessions. LS7 score and risk knowledge score for each subject were calculated. Logistic regression was used to estimate the odd ratio and 95% confidence intervals for the demographic characteristics on LS7 and knowledge.

RESULTS: A total of 2043 subjects were included in this study (mean age 26 ± 25.5 years old, 28% male). There were only 0.6% subjects had ideal CV health while 35.9% had 5 to 7 ideal CV health metrics. Subjects ≥ 65 years (OR 2.341, 95% CI 1.779-3.080, P < 0.0005) and subjects with tertiary education (OR 2.031, 95% CI 1.527-2.701, P < 0.0005) were more likely to obtain optimum LS7 (scoring ≥ 10 out of 14 in LS7 score). Subjects ≥ 65 years (OR 1.695, 95% CI 1.297-2.135, P < 0.0005) and those with tertiary education or above (OR 1.859, 95% CI 1.412-2.448, P < 0.0005) were more likely to obtain full CV knowledge score. LS7 and full CV knowledge. CONCLUSIONS: Less than 1% of adults in this study population had ideal CV health as defined by AHA. Knowledge has no association but young age and tertiary education had positive association with CV health.