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Editorial

Watch Your Waistline

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Hypertension is a common, non-life-threatening disease which exacerbates cardiovascular disease and greatly influences human health indirectly. There are 2 main types of hypertension: secondary hypertension which is caused by another medical condition, and essential hypertension which has no identifiable cause. Essential hypertension is the most common form of hypertension [1].

Specific causes for essential hypertension have not yet been identified, but there are several risk factors that increase the incidence of hypertension such as alcohol consumption, stress, bad dietary habits, lack of physical activity, smoking, etc. Any combination of these factors may lead to obesity which has been shown to be highly associated hypertension [2, 3].

Body Mass Index (BMI) and Waist Circumference (WC) estimation methods are widely accepted as simple methods for determining obesity. BMI and WC may be useful markers of hypertension due to correlations between obesity and hypertension [4-6]. In addition, a previous study has observed that the prevalence of hypertension increases as people become more elderly [6], and another study has revealed that the prevalence of hypertension was also dependent on gender; blood pressure is higher in men than in women at similar ages, but after menopause, blood pressure increases in women [7].

In the current issue of Osong Public Health and Research Perspectives, a study by Kim aims to determine if age-specific waist circumference (WC) would be a simple and useful screening tool for determining the incidence of hypertension according to age categories in 571 individuals; young (18-39

years), middle aged (40-64 years), and old aged (≥ 65 years) [8]. The author examined whether any factors were highly associated with hypertension amongst Korean adults, such as WC, BMI, and gender, and how cut-off values change as people become older.

Correlations between those predictors and hypertension were analyzed using Spearman rank correlation analysis, logistic regression analysis and ROC (receiver operating characteristics) curves. Spearman rank correlation analyses showed that age, gender, WC, and BMI were significantly correlated with hypertension. Logistic regression analysis showed that the incidence of hypertension was associated with higher age and high WC, whereas gender and BMI had no effect on the incidence of hypertension. The ROC analysis on WC for hypertension showed the cutoff value amongst the elderly was higher than that of the young or middle-aged group.

The author suggested that WC may be the best predictor for hypertension over other risk factors of WC, BMI, age, and gender in Korea. WC in the younger Korean population was a more sensitive marker of hypertension than observed in the elderly. These results suggest that the simple measurement of WC amongst the Korean population may be a useful tool for determining the hypertension status amongst young, middle-aged and elderly individuals, and further studies would be helpful in determining its usefulness as a diagnostic tool.

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