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# Medication Adherence and Effective Management of Hypertension

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The 2018 Korea National Health and Nutrition Examination Survey (KNHANES) revealed that the prevalence of hypertension was 28.3% among adults aged 30 years or older, and the awareness, treatment, and control rates of hypertension among hypertensive patients were 65%, 61.1%, and 45.4%, respectively. Even among patients treated with antihypertensive medications, 26.5% could not reduce their blood pressure to a level of <140/90 mm Hg.<sup>1)</sup> Although the indicators of the control of hypertension have been steadily improving in recent years, they are not yet satisfactory. Poor adherence to prescribed medications is thought to be the most important cause of insufficient blood pressure control.

In the present study, Khadoura et al.<sup>2)</sup> investigated the prevalence of antihypertensive medication non-adherence and factors associated with it among 538 Iranian hypertensive patients attending primary clinics. In this cross-sectional survey, the prevalence of non-adherence was 65.8%. Old age, high education level, low frequency and number of medication, and fewer comorbidities were associated with good adherence. Additionally, patients with high self-efficacy and social support had high adherence to antihypertensive medication.

Drug compliance is also an important issue in the treatment of hypertensive patients in Korea. To increase the effectiveness of antihypertensive treatment, an approach to figure out factors that reduce drug compliance is needed. The appropriate adherence rate was only 54.7% in the study using pharmacy claims data and qualification data of the insured of the national health insurance form in 2004. Upon multiple logistic regression analysis, the probability of appropriate medication adherence decreased in females, with age, when pa-

tients have a disability, prescription days per visit decreased, and the number of prescribing physicians increased. A study using the 2008 KNHANES data reported that cases with older age, a spouse, medicare insurance, a higher number of cormorbidities, and no current smoking status showed significantly high medication adherence. Choi et al. investigated factors affecting adherence to antihypertensive medication in 1,523 Korean hypertensive patients who visited family physicians of primary care clinics and hospitals. They reported that age  $\geq$ 65 years, concomitant medication for diabetes, a family history of hypertension and/or cardiovascular disease, being on  $\geq$ 2 classes of antihypertensive medications, high frequency of exercise, and treatment in a metropolitan-located hospital were associated with good adherence, while a high salt intake was associated with poor adherence.

The differences in the characteristics or environment of the subjects between each study would be a reason for the large variety of factors that affect adherence. For example, studies between home blood pressure monitoring and drug compliance didn't show consistent results. <sup>6,7)</sup> Eventually, more diverse studies will be needed on factors that affect drug compliance, and access based on patient characteristics might be required for effective management. In addition, to increase the control rates, which are still low in Korea, attention will also need to be paid to other factors affecting uncontrolled hypertension. <sup>8)</sup>

# **CONFLICT OF INTEREST**

No potential conflict of interest relevant to this article was reported.



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