

Prehypertension: is it a real medical problem?

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The term of prehypertension is introduced in guideline of hypertension management released by Joint National Committee on Hypertension¹ a decade back. Prehypertension is defined as blood pressure of 120-139/80-89 mmHg which was classified as high normal group in previous classification.² Such intentional identification of patients as “prehypertensive” calls needed attention to the excess risk associated with BP in this range and reminds healthcare providers to pay more attention to prevention.

However, is it really worth to pay more attention on prehypertension? Prehypertension is a precursor of hypertension as shown by Vasan et al found that the conversion rate of prehypertension to hypertension over 4 years was 30%.³ Prehypertension is also associated with an increased risk of major cardiovascular-disease events as well as diabetes type 2.^{4,5} It must be understood that prehypertension is not a disease entity but a diagnostic criteria only. Even though, some experts sceptically thought that prehypertension is a tool of pharmacy company to extent their market but actually only lifestyle modification is needed to treat prehypertension. Diet, physical exercise, weight control, moderated alcohol consumption, and stress management are some essential factors need to be modified. Reduction of salt consumption up to 2300

mg as recommended in DASH (the Diet Approaches to Stop Hypertension) along with 30 minutes brisk walking everyday may prevent hypertension.

The definite predictors of progression of prehypertension to hypertension remain unclear. However, a metaanalysis of 26 articles that comprise of total sample of 250,741 individuals revealed that some factors might have role in developing of hypertension. Those factors comprise of increased age, male sex, low education status, C-reactive protein and waist circumference, Mongolian race, alcohol-drinking, being overweight or obese, high salt intake every day, low level of physical activity, and a family history of hypertension.⁶

In this issue of Jurnal Kardiologi Indonesia, Ciptaningtyas⁷ describes prevalence of prehypertension among Indonesian young adults based on 2007 National Health Survey (Riskesdas) with 55,347 people aged 18 to 25 in 33 provinces in Indonesia. This is interesting study as there is a lack of such data in this country with very big population. The author found that the geographic area of residence, marital status, education level, occupation, overweight, smoking cessation and daily cigarette use, alcohol consumption, fruit and vegetable consumption, and mental health disorder were revealed to be significant risk factors of prehypertension among young Indonesian adults. On the contrary to previous study, the author found more female suffered from prehypertension as compare to male subjects. Overall, the prevalence of prehypertension are 50% of Indonesian young adults in this study which is significantly higher to its prevalence in overall population in east Asia countries.⁶

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Interestingly, a recent study showed strong, inverse and graded association between exercise capacity and all-cause mortality was observed in prehypertensive individuals. Increasing fitness capacity gives protective effects to mortality in prehypertensive patients especially in younger individuals.⁸ This finding should encourage regular physical exercise and healthy lifestyle promotion among young adult in Indonesia.

Daftar Pustaka

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