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Editorial

Prehypertension - An Unnoticed Catastrophe in Bangladesh

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The term 'Hypertension' is very familiar to us and is one of the undeniable public health concerns in Bangladesh. Research indicates that higher the blood pressure, the higher the risk of getting ischemic heart disease, stroke, heart failure and kidney diseases. Blood pressure doubles the risk for every 20mmHg increment of systolic blood pressure or 10 mmHg diastolic blood pressures [1]. But the question is how does this hypertension develop? Are we aware that there is a stage between developing hypertension and normal levels of blood pressure? Do you really know the epidemiology of this stage? Why we don't take enough precautions before developing hypertension? This phase was first observed by an early study in 1939 which revealed that increases of blood pressure more than 140/90 were associated with an increase in death rate. They identified systolic blood pressure 120-140 as 'danger zone' because it could subsequently turn into high blood pressure [2]. More than 60 years later, The Joint National Commission on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7), in the latest released report added an additional blood pressure category named 'Prehypertension (PreHTN)'. It is diagnosed when an individual's blood pressure is between 120/80 mmHg and 139/89 mmHg. The simple objective of adding an extra category of blood pressure was to create awareness among peoples who are undergoing this stage and therefore could adopt the early preventive measures by lifestyle modification. It also aimed to aware people to reduce the blood pressure and the rate of progression to HTN with the increase of age [3]. Nevertheless, on the flip side, many researchers argued about the non-uniformity of the preHTN category. Also, many people have thought that this term 'prehypertension' could create anxiety among the universal citizenry. Furthermore, some commented that prehypertensive patients might need drug therapy as because they are at high risk of developing cardiovascular diseases [4].

It is evident that the prehypertensive patients are at higher risk of developing hypertension and cardiovascular diseases [5-8]. Other research suggested that preHTN patients are at three times higher risk of developing hypertension and double the numbers of cardiovascular events. Moreover, prehypertensive patients are likewise more potential to become overweight and obese [9]. Another meta-analysis study noted prehypertension even in the low range as a significant marker of increased cardiovascular risk [10]. This progression mainly influenced by age and resting blood pressure [11]. In relation to that, another study indicates that childhood prehypertension is linked with early adulthood hypertension [12]. Furthermore, another study discovered 14% prehypertensive adolescent developed hypertension 2 years afterwards. They added combined effect of prehypertension and obesity on high blood pressure. They constitute 68% boys and 43% girls developed hypertension in 2 years [13]. Another study reported an association between blood pressure categories and cognitive function of women of more than 50 years of age. They identified 'prehypertensive women at 50 years' as significant predictor of subsequent cognitive decline in later ages and suggested that controlling even at the pre-hypertensive stage could reduce the risk [14]. Despite the higher global prevalence (~25-50% estimated) of preHTN, very few studies have researched prehypertension in the past, as the focus has mostly been on hypertension [10]. A recently published prevalence study in rural Bangladesh found that preHTN and HTN was 31.9% and 16.0% respectively. It also revealed that men had higher prevalence of prehypertension than women [15]. Particularly, urban dwellers tend to lead more sedentary lives than rural people, and then it can be assumed that prevalence of prehypertension is likely to be more eminent in this population. Based on the evidences from previous studies, it is more likely that these prehypertension patients eventually will develop hypertension and will experience the complications of hypertension that are mainly chronic diseases such as heart diseases, stroke and kidney diseases in near future. In addition, considering the current scenario of Bangladesh, it can be easily depicted that in coming days, one-third of the total rural population who are now prehypertensive will develop hypertension and add with the existing number of hypertensive patients which is now one-sixth of total rural population of Bangladesh. Thus prehypertension, through the development of hypertension and all its numerous negative health consequences, contributes to a major burden of diseases in Bangladesh and elsewhere.

Globally, two-thirds of the people with high blood pressure are from developing countries. Out of 8 million that die of hypertension, 1.5 million people are from South-East Asia (SEA) region [16]. Chronic disease is not just a health problem, but also a development challenge, particularly for the rising nations like Bangladesh. Bangladesh is facing a double burden of disease, where more and more chronic diseases are turning an epidemic while infectious diseases are still prevalent at large. The emerging epidemic of chronic disease will suffer an untoward event on both human and economic cost by stressing the health system. Developing countries like Bangladesh, will find this extra burden even harder to cope in future, given their lower levels of resources. On that point are now huge drive by the public health professionals and money have been expended to reduce hypertension prevalence or at least to ensure quality of liveliness. And those who are hypertensive visit their physician on a regular basis and/or took regular medicine and spend money from out-of-their pocket to meet the expenditure. Nevertheless, most of the money and manpower can be minimized by concentrating on the management of the prehypertensive stage. Treatment related to prehypertension mainly focuses on preventive approaches rather than curative as drug therapy is not generally advised because of unproven benefits [17]. Early detection and proper management is the key to preventing prehypertension from evolving into hypertension and other chronic conditions. Prehypertension can also be treated or prevented by lifestyle modification such as weight loss, dietary modification and increased physical activity [18]. Unawareness and data scarcity on care-seeking behavior is common in nations with a poor setting like Bangladesh [19]. Nevertheless, research suggested that increasing awareness is associated with controlling blood pressure [20]. It is imperative to realize the manifestation of prehypertension, the degree of awareness regarding this condition, and the health seeking behavior. Prehypertension is an important field of further research since intervention at the stage of prehypertension can delay or forestall the progression to the development of high blood pressure. Thus, it is very important to identify the risk groups for prehypertension and formulate effective strategies that health systems can adopt to deal with this condition. Despite the huge burden of diseases, it is still an under-noticed catastrophe in Bangladesh.

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