

## Prevalence of Hypertension in the Elderly

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### Dear Editor,

In 2011, an estimated 524 million people (8% of the world's population) were aged 65 or older. Until 2050, this number is expected to nearly triple to about 1.5 billion, representing 16% of the world's population. Between 2010 and 2050, the number of older people in less developed countries is projected to increase more than 250%, compared with a 71% increase in developed countries [1].

Chronic non-communicable diseases (NCDs) such as cardiovascular disease and diabetes are the leading cause of death worldwide, having comprised 60% of all deaths in 2005. Approximately 80% of NCD-attributable deaths are occurring in low and middle-income countries [2].

Hypertension is one of the most powerful contributors to cardiovascular morbidity and mortality. In order to collect more information in this regard, the prevalence of high blood pressure (BP) was assessed among subjects examined in this study.

In this cross-sectional study, a total of 1,060 Iranian subjects living in Hamadan, during the period of 6 months starting from March until August 2012 randomly participated. BP was measured in the sitting position after 10 min rest and the mean of three readings from right arm was used in the analysis.

High BP was defined according to the JNC VII and WHO guideline criteria; a systolic BP (SBP) > 140 mmHg or a diastolic BP (DBP) > 90 mmHg or being on treatment. Stage I (mild hypertension) was defined as an SBP between 140-159 mmHg and a DBP between 90-99 mmHg. Stage II and III (moderate and severe hypertension) were defined as a SBP  $\geq$  160 mmHg or a DBP  $\geq$  100 mmHg. Subjects receiving at least one antihypertensive drug and presenting with a normal BP level (< 140/90 mmHg) were identified. Those subjects having high BP

in spite of pharmacological treatment were classified as uncontrolled hypertensive.

In this study, the mean age of men and women were  $68.9 \pm 15.3$  and  $57 \pm 14$  years, respectively. Subjects were selected in near equal proportion in both sexes (48% male and 52% female). Women, especially the younger ones, had a mean BP level lower than men, but the difference between genders was shown to decrease with age, especially in the older age groups.

The prevalence of high BP in men and women were 16.4% and 19.2% respectively. The severity of hypertension increased with age. Stages II-III of hypertension was more frequent in men than in women, but this difference was not significant and 12.3% of the older patients had moderate to severe hypertension.

Hypertension is the most prevalent cardiovascular disease. Data about the prevalence of hypertension, mean levels of SBP and DBP and concomitant risk factors can be helpful in planning preventive strategies [3].

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