Prevalence, awareness, treatment, and control of hypertension in adult Palestinians: a cross-sectional study

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Background Hypertension and its complications are major health problems in the West Bank, occupied Palestinian territory (oPt); the results of preliminary surveys suggest that the prevalence of hypertension might be as high as 24%. The aim in this study was to estimate the prevalence and distribution of hypertension and to ascertain awareness, treatment, and control in the general adult population in the West Bank.

Methods In a cross-sectional survey of the West Bank, patients and accompanying individuals older than 25 years (n=2258) were invited for participation in the study and screened for hypertension between May and December, 2011, at six governmental primary health-care clinics in the rural and urban Palestinian communities in the three main governorates (Hebron, Nablus, and Ramallah). During clinic visits, trained research staff administered a standard questionnaire. They gathered information about patients' diagnosis awareness, drug treatment, and demographic characteristics. Trained and certified observers used an American Heart Association protocol to obtain two blood pressure measurements from each participant. Hypertension was defined as a mean systolic blood pressure of at least 140 mm Hg and a diastolic blood pressure of at least 90 mm Hg, or self-reported current treatment for hypertension with an antihypertensive medication. Data were analysed with SPSS (version 18.0). χ^2 was used to test for independency of the distribution of individuals with diagnosed and undiagnosed hypertension, and the dependency of the distribution of the individuals with controlled and uncontrolled hypertension. The level of significance was set at p<0.05. The clinical research committee at the Faculty of Pharmacy, Al-Quds University, East Jerusalem, West Bank, oPt, provided ethics approval to do this study. All patients provided verbal informed consent.

Findings 2077 individuals (mean age $40 \cdot 1$ years [SD $12 \cdot 1$]) participated in the survey. 1204 (58%) of the participants were women, 1329 (64%) lived in urban areas, and 748 (36%) lived in rural areas. The overall prevalence of hypertension was 573 (28%; 255 [29%] of 873 men, 318 [26%] of 1204 women; p=0 \cdot 04). Prevalence of hypertension increased with age in both men and women (data not shown). The rural—urban difference in prevalence was not significant (200 [27%] and 373 [28%]; respectively; p=0 \cdot 08). 293 (51%) of 573 patients with hypertension were aware of their raised blood pressure, 229 (40%) were on treatment, and 58 (10%) achieved targeted control of blood pressure (<140 mm Hg/90 mm Hg). Of the patients treated for hypertension, only 76 (33%) had targeted control of blood pressure.

Interpretation Prevalence of hypertension in the adult Palestinian population was high, with inadequate awareness, treatment, and control of the blood pressure. A concerted public health effort is needed to improve the detection, treatment, and control of hypertension.

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Contributors

MRK and HOH did the data analysis and wrote the Abstract. MS and QNA-S gathered the data.

Conflicts of interest

We declare that we have no conflicts of interest.

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