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Differences in Prevalence and Treatment of Hypertension between Males and Females in Zaatari Refugee Camp- About 312 Case

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Original Research Article

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Abstract: Hypertension is an important public health problem in both economically developed and developing nations. Worldwide, 7.6 million premature deaths were attributed to high blood pressure. Hypertension has been associated with increased risk of coronary artery disease and is an independent risk factor for cardiovascular and cerebrovascular diseases. The aim of this retrospective study about 312 cases was to determine differences in treatment and control rates of hypertension between male and female and to research the frequency of associated cardiovascular risk factors in the hypertensive population in Zaatari camp deployed in Jordan for Syrian refugees [9]. Our study confirmed the high prevalence of hypertension and associated cardiovascular risk factor. Although women are better treated, much remains to be done to reach BP goal for themselves and also for the rest of the patients.

Keywords: Hypertension; Prevalence; Risk factors; Sex; Treatment; refugee camp.

INTRODUCTION

Hypertension is an important public health problem in both economically developed and developing nations [1]. As per World Health Organization report, about 40% of people aged more than 25 years had hypertension in 2008 [2, 6].

Worldwide, 7.6 million premature deaths were attributed to high blood pressure. About 54% of stroke and 47% of ischemic heart disease worldwide were attributable to high blood pressure [3, 7]. Hypertension has been associated with increased risk of coronary artery disease and is an independent risk factor for cardiovascular and cerebrovascular diseases [4, 5, 8].

Data is available on hypertension in urban population but few studies are reported in rural areas or refugee camp.

The aim of this study was to determine differences in treatment and control rates of hypertension between male and female and to research the frequency of associated cardiovascular risk factors in the hypertensive population in Zaatari camp deployed in Jordan for Syrian refugees. [10, 11]

MATERIALS AND METHODS

It is a retrospective study between September 2016 and March 2017, on a population followed in cardiology consultation in the Moroccain field hospital deployed in Zaatari in Jordan for Syrian refugees.

We included 312 patients in the study (41,66% males and 58,33% females), with a mean age of 46.22 ± 14.61 years. Data was collected with individual questionnaires.

Blood pressure (BP) was measured three times at one minutes intervals after five minutes of rest in the sitting position, using a validated electronic tensiometer (OMRON M6 HEM-7321-E). The average of the three measurements was used for the statistical analysis

Individuals using antihypertensive drugs and/or blood pressure (BP) greater than or equal to 140/90 mmHg were considered as hypertensive. The treatment rate was calculated with those who reported using antihypertensive drugs. Controlled blood pressure was considered in individuals with values lower than 140/90 mmHg.

Data analysis was done using SPSS version 20. The results were explained in simple proportions.

RESULTS AND DISCUSSION

The prevalence of hypertension was 17,3% among study subjects. Prevalence of hypertension was higher in men than in women (51.2% versus 37.6% in women) with a very significant difference ($P < 0.001$)

Among hypertensive men, 73% knew the diagnosis, 64.2% of them were under treatment, and 29,5% had controlled BP. Among the hypertensive women 79.6% knew the diagnosis, 81.4% were under treatment and 40.7% were with controlled BP. The most frequent associated risk factors were diabetes in 31.4% of the patients, smoking in 43,3%, obesity in 23.3%, and hypercholesterolemia in 16.33% of them.

The presence of cardiovascular risk factor as diabetes, smoking and hypercholesterolemia in our study population has an influence on the non-control of BP.

This survey of the hypertensive population provided important data on the associated cardiovascular risk factors and the rate of control of BP in Zaatari refugee camp. These data may serve not only for the public health subsequent studies, but also as an effective strategy for the control of hypertension and other risk factors to avoid cardiovascular complications.

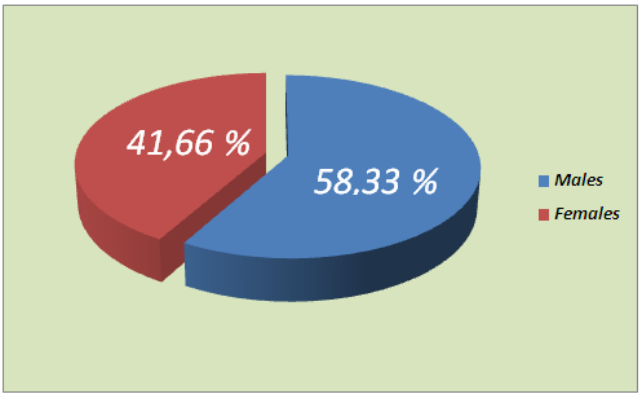

Fig-1: Distribution of hypertensives subjects by sex

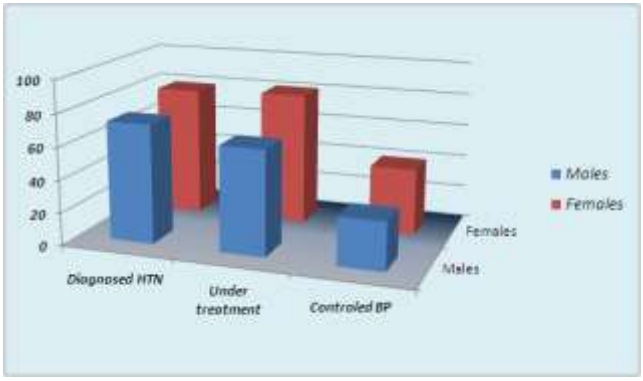

Fig-2: Differences in treatment and control of hypertension between males and females

CONCLUSION

Our study confirmed the high prevalence of hypertension and associated cardiovascular risk factor. Although women are better treated, much remains to be done to reach BP goal for themselves and also for the rest of the patients.

The type of study can help public authorities to establish a program of action against public health scourges. In this refugee camp, it becomes urgent to intensify the management of our hypertensive patients to avoid disabilities which still represent a greater financial and social burden.

Competing Interests

The authors declare that they have no competing interests.

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