

The Incidence Of Hypertension Caused Headache In Primary Health Care Units

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Abstract

Introduction: Headache is one of the most common neurological disorders in any country. Many of these patients are underdiagnosed and undertreated. The association between hypertension and a headache was first considered in the early twentieth century. It was stated that a throbbing headache in the early morning was a sign of hypertension.

Patients and methods: The study was conducted prospectively from a period of six month (January 2023 – June 2023). In this study were included patients with headache who were admitted to the Primary care unit of Health Centre in Lukavac. All participants completed validated electronic questionnaires. Hypertension was defined as 140 mm Hg systolic pressure or 90 mm Hg diastolic pressure or higher in each of these levels. The previous diagnosis of hypertension, with or without treatment by antihypertensive drugs was also considered a hypertension case.

Results and discussion: Out of 150 subjects with the headache that were included in the study, 74 (49.3%) were male, while 76 (50.7%) were female. The average age of male subjects was 26.72 (± 2.52), with an average deviation from the average for 11.05 years, while the average age of female subjects was 29.99 (± 2.65). Out of 150 patients with headache, 100 (66,67%) of them reported headache as a consequence of their hypertension, and that was statistically significant ($p < 0.001$). Out of 100 patients with headache caused by hypertension, 35 (35%) were male, while 65 (65%) were female ($p < 0.001$).

Conclusion: Headache may be the most frequently mentioned complaint that accompanies hypertension and one of the most common various symptoms reported by the patients with hypertension.

Key words: hypertensio, headache

Introduction

Headache is one of the most common neurological disorders in any country (1). Primary headache disorders has been recognized to be consist of migraine and episodic tension type headache, cluster headache, and chronic daily headache consist of chronic tension type headache, medication over use

headache, status migraine and other types, which cause some difficulties for patients (2). According to the studies it could be affected on nearly 3 billion people life's every year (3-5). Based on the findings of some studies, headache disorders ranked third out of 369 conditions in terms of years lived with disability (YLDs) for both sexes. Headache disorders tend to be regular and usually become chronic (6).

The association between high blood pressure and a headache was first considered in the early twentieth century (7). It was stated that a throbbing headache in the early morning was a sign of high blood pressure (8). In this way, the patients who reported the headache as a chief complaint is illustrated more likely to have moderate or severe hypertension than other major complaints (8). According to the Third Edition of International Classification of Headache Disorders (ICHD), headache related to arterial hypertension were considered only in patients with systolic blood pressure (SBP) ≥ 180 mm Hg and/or diastolic blood pressure (DBP) 120 mm Hg (9).

For many years, many studies attempted to get an association with hypertension or increased BP in migraine (7). In that way, some large-scale population-based studies reported a positive association between hypertension and migraine (10-12). The associations between increased BP and headache have been reported repeatedly in the medical literature (13). Therefore, according to the 3rd edition of International Classification of Headache Disorders (ICHD) and hypertensive patients recording, headache could be considered as the most common symptom in relation to arterial hypertension (14).

Patients and methods

The study was conducted prospectively from a period of six month (January 2023 – June 2023). In this study were included patients with headache who were admitted to the Primary care unit of Outpatient Clinic in Lukavac area of Tuzla Canton.

All participants completed validated electronic questionnaires by interview containing information on demography, medical history, smoking, alcohol consumption, and hypertension. Accuracy and precision of all methods were performed in accordance with the relevant guidelines and regulations (14). High blood pressure was defined as

140 mm Hg systolic pressure or 90 mm Hg diastolic pressure or higher in each of these levels. The previous diagnosis of hypertension, with or without treatment by antihypertensive drugs was also considered a hypertension case.

As our research was a retrospective study, we had all the data about the participants before entering the study. They had been treated using regular or irregular antihypertensive drugs. The patients' blood pressure was first measured by Richter brand monitor and suitable size of blood pressure cuff and recorded twice-once in each arm-with a 10-min interval. The mean blood pressure of the right arm was used in the analysis-(14).

Results and discussion

Out of 150 subjects with the headache that were included in the study, 74 (49.3%) were male, while 76 (50.7%) were female. The average age of male subjects was 26.72 (± 2.52), with an average deviation from the average for 11.05 years, while the average age of female subjects was 29.99 (± 2.65) with a standard deviation of 11.81 years. There is no statistically significant difference in the age between male and female patients, with a probability of $p = 0.082$ ($t = -1.751$).

One hundred and twenty-five (83,33%) patients with headache were smoking cigarettes. Out of these 125 patients, 72 (57,6%) were male, while 53 (42,4%) were female. There is no statistically significant difference concerning smoking cigarettes between male and female patients Fifty-seven (38%) patients with headache were drinking alcohol. Out of these 57 patients, 50 (87,72%) were male, and 7 (12,28%) were women. The difference was statistically significant between male and female patients concerning drinking alcohol.

In our study, out of 150 patients with headache, 100 (66,67%) of them reported headache as a consequence of their hypertension, and that was statistically significant ($p < 0.001$). Out of 100 patients with headache caused by hypertension, 35 (35%) were male, while 65 (65%) were female ($p < 0.001$).

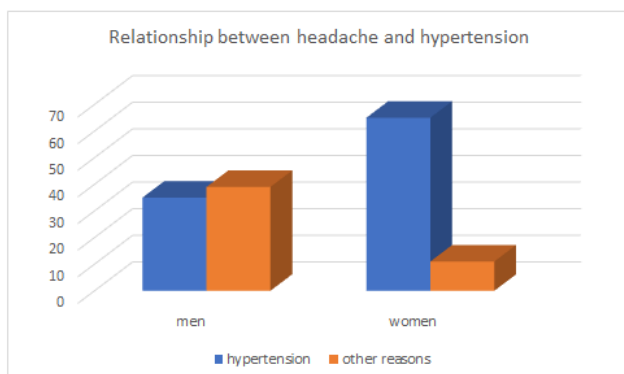


Figure 1. Relationship between headache and hypertension

Headache is one of the main reasons for patient referral to neurology departments by primary care physicians (1) and the fifth most common reason for referral by emergency departments, accounting for over 10 million medical appointments per year (2). The relationship between headache and hypertension has been debated for many years, and is a subject of great concern to our patients. Today, in many areas of medical science, the focus is almost exclusively on the most recent publications, and any paper more than 20 years old is often ignored. However, in the case of hypertension and headache, the older papers still have much to contribute because the prevalence of severe, untreated hypertension was much higher then, and the awareness of hypertension much lower. The central problem in this debate, of course, is that both headache and hypertension are very common, and hence many hypertensives complain of headache. In addition, people who experience headache are more likely to seek medical care, and thus to have their blood pressure checked.

In another study, hypertension was found with a higher prevalence in TTH cases (28.71% in migraine versus 55.5% in TTH) even more than migraines cases which are in line with our results about EPH which includes more non-migraine headaches than migraine (14). Study of Prudenzano et al. was also different from our study in that it was performed in a headache clinic but our study was on a cohort population. Another difference is more HTN prevalence in males than females in this study (54.23% versus 27.07%)⁴⁸ which was not as our study with more HTN prevalence in females than males ($p < 0.001$).

Conclusion

In conclusion, primary care physicians show great interest in headache. Our results provide insight that headache may be the most frequently mentioned complaint that accompanies hypertension.

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