AWARENESS, STRESS, ANXIETY, AND DEPRESSION AMONG HYPERTENSIVE PATIENTS ATTENDING CARDIAC OUTPATIENT DEPARTMENT IN A SUPER SPECIALTY HOSPITAL

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ABSTRACT

Objective: Hypertension is a major risk factor for cardiovascular disease and its association with negative emotions may increase their risk for the development of mental health disorders. The main objective of the study was to assess the awareness, stress, anxiety, and depression among hypertensive patients attending cardiac outpatient department (OPD).

Methods: This study was conducted in cardiac OPD of Super Specialty Hospital associated with Government Medical College, Jammu, for a period of 1-month commencing from 1st October to 31st October 2015. Hypertensive patients were given a questionnaire regarding socio-demographic profile, risk factors, and awareness for high blood pressure, and prevalence of stress, anxiety, and depression was assessed using a structured validated questionnaire DASS-21 (depression, anxiety, and stress scale-21).

Results: It was observed that most (72.5%) of the patients were aware of symptoms and its complications and regarding psychological symptoms mild to severe depressive symptoms were present in 10%, anxiety in 70%, and stress in 10% of patients.

Conclusion: There is need of psychiatric evaluation and counseling in these patients and support services to be made available to these patients.

Keywords: Hypertension, Awareness, Stress, Anxiety, Depression; anxiety and stress scale-21.

INTRODUCTION

Hypertension is a global challenge with high morbidity and mortality rates. The etiology of hypertension is multifactorial, which results from the combined influence of genetic and environmental factors. It predisposes to coronary heart disease and cardiac dysfunction and has deleterious neurological effects on retina, central nervous system, and kidneys. The overall prevalence of raised blood pressure (BP) in adults aged 25 years and over was around 40% in 2008 [1]. However, because of population growth and aging, the number of people with hypertension rises from 600 million in 1980 to 1 billion in 2008 [1]. It was seen that awareness of hypertension among those affected by the disease is generally high as compared to the general population [2]. The WHO celebrates 17th May as “World Hypertension Day” and the main aim of this day is to provide awareness of hypertension so that we can prevent the complications arising out of high BP such as heart attack, heart failure, stroke, kidney failure, retinal hemorrhage, and atherosclerosis. Besides, it is one of the modifiable risk factors as hypertensive patients also experience many profound emotions which increase their risk for the development of mental health disorders, particularly anxiety and depression [3,4].

Depression is a burdensome disease of global importance [5], and although prevalent, it is mostly undiagnosed in patients with hypertension [6]. The research evidence suggests that anxiety is another significant cause of increased BP and is an independent predictor of future hypertension [7]. Similarly, stress is known to be significantly correlated with hypertension and causes many cardiac problems [8]. Natural reaction of the cardiovascular response to stress is the increase in heart rate. Keeping all these factors in mind, the present study was carried out to evaluate the awareness and psychological aspects in hypertensive patients which has been overlooked by physicians, and in our setup, it is the first study of its kind.

METHODS

This cross-sectional study was conducted in the Outpatient Department of Cardiology in Super Specialty Hospital of Government Medical College, Jammu, for a period of 1-month commencing from 1st October to 31st October 2015. 200 hypertensive patients attending cardiac outpatient department were recruited in the study. Eligibility to participate in the study was that the patient should be diagnosed case of hypertension or hypertension with other comorbid conditions and should be on antihypertensive medication for a minimum period of 2-months. These patients then were interviewed using a pre-tested, structured, mostly closed-ended questionnaire, and data were collected for 2 days in a week. The questionnaire included the socio-demographic profile, risk factors, and awareness for high BP, whereas for the prevalence of stress, anxiety, and depression, a structured validated questionnaire depression, anxiety, and stress scale-21 (DASS-21) was used [9]. The results were expressed in percentage.

RESULTS

Out of 200 studied patients, majority (60%) were males and 61% of the studied population belonged to the age group of 41-60 years with 64% of them coming from rural areas and have to travel at least for 1-2 hrs to reach the hospital. The majority (80%) were married and were Hindus having education up to 10th standard and were government employees with a monthly income of Rs. 1000-10000. In the present study, majority (73%) of patients were non-smoker and non-alcoholic (Table 1).

Regarding the patient’s awareness about the disease, 72.5% of patients knew that high BP is a lifelong disease, and thus, the treatment is lifelong with only a few of them being of the opinion that treatment was only for 2-4 weeks, and majority (60%) of patients were under the impression that a person can be labeled as hypertensive only when his/her BP is more than 140/90. However, majority (62.5%) of patients were aware of the consequences of high BP like its long-term effects.
Table 1: Demographic characteristics of study sample

| Variables          | Frequency (%) |
|--------------------|---------------|
| Sex                |               |
| Male               | 120 (60)      |
| Female             | 80 (40)       |
| Age                |               |
| 18-40              | 10 (5)        |
| 41-60              | 122 (61)      |
| 60                 | 68 (34)       |
| Residence          |               |
| Rural              | 128 (64)      |
| Urban              | 72 (36)       |
| Marital status     |               |
| Single             | 2 (1)         |
| Married            | 160 (80)      |
| Divorced           | 8 (4)         |
| Widowed            | 30 (15)       |
| Religion           |               |
| Hindu              | 170 (85)      |
| Muslim             | 15 (7.5)      |
| Other              | 15 (7.5)      |
| Employment         |               |
| Government         | 67 (33.5)     |
| Retired            | 24 (12)       |
| Housewife          | 53 (26.5)     |
| Businessman        | 17 (8.5)      |
| Farmer             | 31 (15.5)     |
| Any other (army personal) | 8 (4) |
| Educational status |               |
| Degree             | 46 (23)       |
| Diploma            | 18 (9)        |
| 10th standard      | 110 (55)      |
| Cannot read        | 26 (13)       |
| Monthly income     |               |
| 1000-10000         | 110 (55)      |
| >10,000            | 70 (35)       |
| <1000              | 20 (10)       |
| Distance from hospital |           |
| More than 2 hrs    | 47 (23.5)     |
| Between 1-2 hrs    | 90 (45)       |
| Up to 1 hr         | 63 (31.5)     |
| Habits             |               |
| Smoking            | Yes - 54 (27) |
| Alcohol            | Yes - 54 (27) |

Table 2: Awareness among studied patients

| Question number | Awareness questions | Response (%) |
|-----------------|---------------------|--------------|
|                 |                     | Yes | No  |
| 1               | Is high BP is a lifelong disease? | 72.5 | 27.5 |
| 2               | Whether you feel different with high BP? | 84 | 32 |
| 3               | Is the pressure is high when it is above >140/90? | 60.5 | 39.5 |
| 4               | Can high BP cause heart, brain, and kidney damage? | 62.5 | 37.5 |
| 5               | Whether treatment is life long? | 72.5 | 27.5 |
| 6               | Does regular physical exercise help in controlling high BP? | 79 | 21 |
| 7               | Does losing weight is helpful in controlling high BP in obese people? | 72.5 | 27.5 |
| 8               | Do reducing salt intake help in controlling high BP? | 90 | 10 |

Table 3: Distribution of degree of symptoms of depression, anxiety, and stress

| Emotional condition | n (%) | Normal | Mild | Moderate | Severe | Extremely Serve |
|---------------------|-------|--------|------|----------|--------|-----------------|
| Depression          | 180 (90) | 11 (5.5) | 9 (4.5) | Nil | Nil |
| Anxiety             | 60 (30) | 40 (20) | 40 (20) | 60 (30) | Nil |
| Stress              | 180 (90) | 20 (10) | Nil | Nil |

Hypertension is a known risk factor for cardiovascular disease, and the term hypertension itself implies a disorder initiated by tension or stress, but stress is nowhere defined, and the hypothesis is untestable [10]. However, it is an accepted fact that psychosocial factors operate through mental processes, consciously or unconsciously and cause hypertension.

DISCUSSION

Hypertension is a known risk factor for cardiovascular disease, and the term hypertension itself implies a disorder initiated by tension or stress, but stress is nowhere defined, and the hypothesis is untestable [10]. However, it is an accepted fact that psychosocial factors operate through mental processes, consciously or unconsciously and cause hypertension.
visit a doctor’s clinic. British researchers reported that patients with hypertension were likely to have history of panic attacks or sudden feeling of terror that strikes repeatedly [19]. In one study conducted by Spruill et al., on 214 normotensive and mildly hypertensive patients, the perception of being hypertensive was associated with greater anxiety during clinic BP measurement and a larger white coat effect [20].

Mild to moderate depressive symptoms that were seen in 20 patients showed that this information is also important because of increasing impact of depression on the global disease burden [5]. Yet, depression among hypertensive patients is usually not diagnosed [21]. As the result, such patients may be denied clinical care which takes their mental health into consideration. Use of tricyclic antidepressants was found to be associated with greater risk of hypertension [22]. However, in the present study, we were not having any information regarding the use of other group of drugs. Studies have focused primarily on anxiety and depression, but significant stressful events have been reported responsible for hypertension. In the present study, 20 patients were found to be having mild stress and maximum patients were government employees having less monthly income, and it has been seen that condition of workplace, working hours, family conditions, number of dependents are the significant social predictors of hypertension. In a Japanese study conducted by Nakanishi et al., it has been found that long working hours are responsible for hypertension [23]. In India, traditionally, the family expenditures and finances are born by the men, and in the present study, maximum patients were from rural areas where only men work and if women work they can protect their counterparts from being hypertensive.

CONCLUSION

In conclusion of the study, it was seen overall awareness in hypertensive patients is good but detecting depressive, anxiety, and stress-related symptoms in these patients are critical, and this shows that fear of suffering from disease which is lifelong and taking medication in the present study, we were not having any information regarding is critical, and this shows that fear of suffering from disease which is lifelong and taking medication will keep their heart in good condition.

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