

Prevalence of General Anxiety Disorders in Patients with Hypertension

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ABSTRACT

Aim: To find the prevalence of anxiety in hypertension cases males females in rural area of Pakistan

Place & duration of study: This cross sectional study was conducted in Pakistan Red Crescent Medical & Dental College Dina Nath in a subset of rural area patients visiting the hospital during the period of 15/06 /2018 to 30/11/2018.

Methods: Thirty six hypertension cases in the age group of 18-35 years with minor medical ailments & without any underlying recent stress (fear grief) & pathological conditions (endocrinal /renal causes of hypertension or h/o intake oral contraceptive pills) which may affect the emotional state of patients were included in study. The patients were examined physically as per proforma by physical examination and were selected for studies. The patients' were evaluated on DSM 5 general anxiety disorder criteria.

Results: The prevalence of anxiety in hypertension males & females was found to be in male & female cases of hypertension. the prevalence of anxiety is significant in those with positive cases.

Conclusion: The patients with hypertension in younger ages must be evaluated for anxiety as its presence may be a cause of hypertension and also increase the cardiovascular risk & should be treated as well.

Keywords: Anxiety, DSM 5, JNC Criteria 8.

INTRODUCTION

Hypertension affects nearly one third of the population worldwide and a common cause of mortality¹. It has multifactorial etiologies involving genetic, psychosocial & environmental factors^{2,3}. Anxiety is one of the most common psychiatric illness having a damaging effect on individual health & quality of life^{4,5} and prevalent in large population..As both conditions are hazardous in one's life so the relationship and extent of association has been worth attractive for decades^{6,7,8,9}. Psychosocial stressors with anxiety disorders heightened the autonomic arousal via hypothalamic pituitary axis with release of more catechol amines increase the risk of hypertension and proinflammatory state which consequently leads to coronary heart disease⁹. There are certain studies showing positive relationships with both conditions while in other studies no relationship was found. So the recognition of association & possible roles of each condition in development of other is important for treating patients as treatment of both conditions in the same patient may be important. The present study is an effort to find the prevalence of association in our population.

PATIENTS & METHODS

The outdoor patients with minor complaints and no h/o diabetes mellitus, or any other complaints pointing to any underlying stress (grief, fear) pathological condition as endocrinal/renal disorder or h/o of drug/alcohol induced hypertension were excluded and the other ones who were

found hypertensive on general physical examination as per JNC 8 criteria¹⁰ (blood pressure more than 140/90 mm Hg) or already diagnosed as hypertensive a little time ago in age group of 18 -35years were included and evaluated further for inclusion in study by following criteria.

A, General physical examination; The patient's blood pressure readings were taken by standard Germany made mercury sphygmomanometer on the non-dominant arm when the patient remained seated for at least 5 minutes. Resting systolic & diastolic pressure is taken as mean of two measurement. Weight, Height, Body Mass Index Abdominal was included., Thyroid examination performed, history of cigarette smoking was taken.

The patients with general anxiety disorders were selected by DSM 5 criteria which differentiates other disorders as phobias, OCD and panic disorders from generalized anxiety disorders^{11,12,13,14}. According to this criteria we diagnosed anxiety with the following features. The presence of excessive anxiety and worry about a variety of topics, events or activities. Worry occurs more often than 6 months and is clearly excessive and it is difficult to control worries and the patient changes topics while talking. The worry or anxiety is associated with three of the following physical or cognitive symptoms

1. Edginess or restlessness
2. Tiring easily; more fatigued than usual
3. Difficulty in concentration or feeling as though the mind goes blank
4. Irritability (recognized by others)
5. Increased muscle aches or soreness.
6. Difficulty sleeping (due to trouble falling asleep or staying asleep, restlessness at night, or unsatisfying sleep)

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The patient feels difficulties in performing normal daily activities and responsibilities due to undue worries. These symptoms are unrelated to any other medical conditions and cannot be related to the prescription medication, alcohol, or recreational drugs and cannot be explained by another mental disorder.

RESULTS

Thirty six hypertensive patients twenty one male & fifteen females in age range of 18 -35 years were selected. The hypertension cases as per JNC 8 criteria were analysed in table one the number of male & female patients, marital status, smoking habits,& body mass index are taken. In table 2 prevalence of general anxiety disorder as per DSM5

Table 2: The prevalence of general anxiety disorder in as per DSM5 criteria in hypertension cases were presented. Hypertension patients with /without general anxiety disorder

| General Anxiety disorders +ve / -ve | Male out of 21 HTN cases | %age of male hypertensive cases | female out of 15 HTN cases | %age of female hypertensive cases | Total +ve/-ve cases in %age |
|-------------------------------------|--------------------------|---------------------------------|----------------------------|-----------------------------------|-----------------------------|
| Positive=17 | 9 | 43% | 8 | 53% | 47% |
| Negative=19 | 12 | 57% | 7 | 47% | 53% |

The prevalence of general anxiety disorder is found more in female (53%) than in females (43%). In total it is present in 47% & absent in 53% in hypertensive cases

DISCUSSION

In this study the relationship of hypertension and general anxiety disorder is clearly found. Our results are matching with many international and Pakistani studies. In a large study on 1 million population.766427 subjects in age group of more than 18years the difference of prevalence of hypertension in anxiety patients & in general population were tested by multiple logistic regression analysis. The prevalence of hypertension in anxiety patients was 37.9% vs 12.6% of patients without anxiety¹⁵. In a systemic review and metaanalysis of epidemiological studies the results of association of anxiety and hypertension were consistently found¹⁶.in this large meta analysis some studies showed a very high relationship between anxiety and hypertension this may be due to use of different methods in the study as may be inclusion of even patients with phobias, obsessive compulsive disorders and panic disorders. Other studies point that hypertension awareness have an increased risk of anxiety disorders¹⁵, so they may interact to affect patient s health¹⁷. This relationship is found in other international studies^{18,19}. In a study in Pakistan also a relationship of psychological and demographic factors with hypertension was observed in the population²⁰. The study was however small and did not differentiate among general anxiety disorders & other similar disorders. Another coincidence of our study is the presence of obesity in our hypertension patients (66%), so indirectly linking hypertension in general anxiety disorder cases.

CONCLUSION

The prevalence of general anxiety disorder in our rural population is much prevalent. The patients enrolled in our study were smaller in number but the results are alarming in view of recognized facts that both hypertension and anxiety are known cardiovascular risk factors and may be causes of high morbidity and mortality. So in every anxiety patients the risk of development of hypertension in future

criteria were differentiated in above selected hypertension. It is noted the prevalence of hypertension is more in married male and female cases (27 married v 9 females)

Table1: Hypertension patients in JNC 8 criteria in age groups of 18-35 years

| Criteria. | Male | Females | Total |
|----------------|-------------|-------------|-------|
| Mean Age | 28 | 28.3 | 28 |
| Total No | 21 | 15 | 36 |
| Marital status | 15 married | 12 married | 27 |
| | 6 unmarried | 3 unmarried | 09 |
| Smoker | 02 | 0 | 02 |
| BMI >25 | 11 | 11 | 22 |

must be kept in mind and should be managed psychologically and pharmacologically.

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