



## General Medicine

# PREVALENCE OF DEPRESSION AND ANXIETY AMONG HYPERTENSIVE PATIENTS ATTENDING GENERAL MEDICINE OUTPATIENTS IN A RURAL MEDICAL COLLEGE HOSPITAL IN SOUTH INDIA.

**Dr. Syed Bahavudeen Hussaini\***

M.D. Associate Professor of General Medicine, Govt. Theni Medical College And Hospital. \*Corresponding Author

**Dr. M. Venkatesh**

M.D. Associate Professor of General Medicine, Govt. Theni Medical College And Hospital.

**ABSTRACT** **BACKGROUND:** There is a rise in non communicable disease like hypertension. Hypertensive patients have higher chance of suffering from depression and anxiety. Hypertensive patients with comorbid depression lead to irregular treatment and lack of adherence and poor compliance. But only few studies have been conducted in India to assess the occurrence of Depression and Anxiety among hypertensive patients attending medical outpatient care that too in a rural setup.

**KEYWORDS :** Hypertensive patients Depression.

## INTRODUCTION:

Depression and anxiety are linked with the development of several chronic diseases like hypertension and diabetes. Mental health is an inherent element of health and wellbeing. Physical and mental health are inter-related. Many patients with hypertension suffer from depression and anxiety. Unfortunately most of the cases go undetected and untreated. Depression and anxiety increases the severity of hypertension. Recent studies from India have shown that 33% of urban and 25% rural Indians are hypertensive. Hypertension accounts for 9.4 million death accounts annually. Hypertensive patients with comorbid depression and anxiety lead to lack of adherence to treatment, poor compliance and more detrimental effect on health. Therefore this study is very important to assess prevalence of depression and anxiety for comprehensive health planning.

## AIM:

To study the prevalence of depression and anxiety among hypertensive patients attending General Medicine outpatients in Rural medical college hospital (Govt. Medical College Hospital, Theni, South India).

## MATERIALS OF METHODS:

This observational cross sectional study was conducted in General Medicine outpatient clinic in Government Theni Medical College Hospital (Rural area) from October 2020 to December 2020 after obtaining institutional ethical clearance. Two hundred consecutive hypertensive patients were included in this study.

## INCLUSION CRITERIA:

1. Patients aged 18 years and above with currently treated or newly diagnosed hypertension (defined as blood pressure of 140/90 mmHg and above at rest in sitting position. BP was measured twice for a person on the right arm 5 minutes apart using a mercury sphygmomanometer and the average value was taken as blood pressure of the person.

## EXCLUSION CRITERIA:

**The following patients were excluded from the study.**

1. Patients with other comorbidities like diabetes mellitus, CAD, Stroke, Renal Disease, Cancer and other terminal illness.
2. Pregnancy
3. History of depression or on antidepressants.

After recording Blood Pressure, Data like demographic characteristics, socioeconomic status, Marital status, history of smoking and alcoholism, literacy status were collected from the patient through a questionnaire.

## Then following patients were selected.

1. Patients having multiple physical and somatic complaints with normal clinical examination and investigations.
2. Patients having frequent worries
3. Patients having problems in the home, family and workplace
4. Patients having sleeplessness
5. Patients having stress and tensed mood.

The above patients are subjected for psychiatric opinion and evaluation. The diagnosis made were noted.

## RESULTS:

Prevalence of depression and anxiety were estimated in 200 adult patients above the age of 18 years out of which 128 (64%) were women and 72 (36%) were men. Most of the study population belonged to the age group of 50 to 60 years (60%). Patients living below poverty line constitute maximum number of patients (80%) as the study sample is obtained from a rural government medical college OPD catering to poor population.

## Educational and socioeconomic status of study population.

|                    |                    | Male | Female |
|--------------------|--------------------|------|--------|
| Marital status     | Married            | 92 % | 94 %   |
|                    | Unmarried          | 3 %  | 2%     |
|                    | Divorced/Separated | 5 %  | 4 %    |
| Occupation         | Unemployed         | 70 % | 90 %   |
|                    | Employed           | 30 % | 10 %   |
| Educational status | Illiterate         | 15 % | 35%    |
|                    | Literate           | 85 % | 65 %   |

## Prevalence of depression

|                              |     |
|------------------------------|-----|
| Total study Population       | 200 |
| No Depression                | 110 |
| Mild to moderated Depression | 62  |
| Major Depression             | 7   |
| Anxiety                      | 16  |
| Other Psychiatric disorders  | 5   |

Out of 200 study population 110 hypertensive patients had no depression, 62 patients had mild to moderate depression and 7 patients had major depression 16 patients had anxiety disorders. Poverty and poor socioeconomic status were the top causes for depression and anxiety disorders. Elder individuals were affected more( 51 %) and females were commonly affected 59%.

## Top causes for depression and Anxiety in Hypertensive patients.

| Male                                  | Female                                      |
|---------------------------------------|---------------------------------------------|
| Poverty and poor socioeconomic status | Poverty and poor socioeconomic status       |
| Adjustment disorder with life partner | Recent stress and death of family members   |
| Long standing hypertension            | Abuse and stress due to alcoholic husbands. |
| Uncontrolled hypertension             | Uncontrolled hypertension.                  |

## Most common age group affected

| Sex    | Affected |
|--------|----------|
| Male   | 41%      |
| Female | 59 %     |

| Age group | Affected |
|-----------|----------|
| 18-39     | 10 %     |
| 40 – 60   | 39 %     |
| >60 years | 51 %     |

## DISCUSSION:

Health is defined as complete physical mental and social well being. There is a relationship between mental and physical health. Depression and anxiety were found to be common among hypertensive patients. Out of the 200 hypertensive patients studied 35 % had depression and 8 % had anxiety disorders. A similar study done in Trivandrum, Kashmir also reported similar results. Our study shows that female gender were more prone for depression and anxiety ( 59 %). Major causes for depression and anxiety were found to be poverty and poor socioeconomic status. The results of our study indicates that anxiety is significantly higher among older patients compared to younger patients. Our study shows that smoking is an independent risk factor for anxiety. Rural people are more prone for depression and anxiety than their urban counterparts because of poor socioeconomic status, poverty, illiteracy and cultural issues.

Some of the factors like age, marital status, family history, uncontrolled blood pressure, duration of hypertension and presence of co morbidities were also found to be associated with depression. Concerning marital status our study indicated that those who are living alone or separated were found to be more prone for depression. Depressive patients have low quality of life, stress and more worries. They seek frequent consultations from various specialities and higher utilization of health care services resulting in waste of time, money and resources. Effective and safe treatment is availability for depression and anxiety.

## CONCLUSION:

The prevalence of depression and anxiety among outpatients with hypertension was higher than general population. Certain socio demographic characteristics like females, older patients, low socio economic status, smokers, long duration of hypertension, uncontrolled blood pressure, not living with spouse are more associated with depression and anxiety. To conclude good control of BP and adequate treatment of depression is necessary in individuals with multi disciplinary approach including physicians, psychiatrists and clinical psychologists.

## REFERENCE:

- DeJean D, Giacomini M, Vanstone M, Brundisini F. Patient experiences of depression and anxiety with chronic disease: a systematic review and qualitative meta-synthesis. Ontario health technology assessment series. 2013;13 (16):1-33.
- Katon WJ. Clinical and health serviced relationships between major depression, depressive symptoms, and general medical illness. Biol Psychiatry 2003;54:216-26.
- Mittal BV, Singh AK. Hypertension in the developing world: challenged and opportunities. Am J Kidney Dis. 2010;55:5908
- Prathibha MT, Varghese S, Jincy J. Prevalence of depression among hypertensive individuals in urban Trivandrum: a cross sectional study. International Journal of Community Medicine and Public Health. 2017 May 22;4(6):2156-61.
- Chobanian AV, Bakris GL, Black HR, et al.: The seventh report of the joint national committee on prevention, detection, evaluation, and treatment of high blood pressure: the JNC 7 report. JAMA. 2003;289:2560-2572/
- Amin S, Khan AW. Life in conflict: Characteristics of Depression in Kashmir. Int J Health Sci. 2009;3(2):213-23.
- Akhtar-Danesh N, Landeen J. Relation between depression and sociodemographic factors. Int J Ment Health Syst. 2007;1(1):4.
- Rubio-Guerra AF, Rodriguez-Lopez L, Vargas-Ayala G, Huerta-Ramirez S, Serna DC, Lozano-Nuevo JJ. Depression increases the risk for uncontrolled hypertension. Exp Clin Cardiol. 2013;18(1):10-2.
- Li Z, Li Y, Chen L, Chen P, Hu Y. Prevalence of depression in patients with hypertension: A systematic review and metaanalysis. Medicine (Baltimore) 2015;94:e1317.
- Mahmood S, Hassan SZ, Tabraze M, Khan MO, Javed I, Ahmed A, et al. Prevalence and predictors of depression amongst hypertensive individuals in Karachi, Pakistan. Cureus 2017;9:e1397.
- World Health Organization. Non Communicable Disease and Mental Health Cluster. Investing in Mental Health. Geneva: World Health Organization: 2003.
- Poongothai S, Pradeep R, Ganesan A, Mohan V. Prevalence of depression in a large urban South Indian population-the Chennai urban rural epidemiology study (CURES-70). PLoS One 2009;4:e7185.