

# A Clinical Study to Ascertain the Efficacy of Various Potencies of “Rauwolfia Serpentina” in Anxiety Related Hypertension in Middle Age Group Adults

Dr. Faizaan Ahmed Siddiqui<sup>1</sup>, Dr. Ambala Sriharitha.<sup>2</sup>

<sup>1</sup>MNR Homoeopathic Medical College and Hospital, Sangareddy, Telangana, India

<sup>2</sup>Associate Professor, Department of Homoeopathic Materia Medica, MNR Homoeopathic Medical College and Hospital, Fasalwadi, Sangareddy, Telangana, India

Corresponding Author: Dr. Ambala Sriharitha.

DOI: <https://doi.org/10.52403/ijrr.20240125>

## ABSTRACT

In India, hypertension is an evolving issue. The prevalence pattern increased with age group. Hypertension is caused by a variety of variables, including psychological ones like stress and anxiety. All age groups are experiencing higher levels of stress and anxiety, but middle-aged persons (20–45) are particularly affected since they have multiple competing responsibilities, such as being a working adult, a husband, parents, and adult children. Homoeopathy offers a safe and cost-effective treatment for such health issues. A one-year project was taken up to study the effectiveness of Rauwolfia Serpentina in different potencies in improving anxiety related hypertension. Statistical result showed a two-tailed P value of less than 0.0001 indicating that intervention has a significant role.

**KEYWORDS:** Anxiety, Hypertension, Rauwolfia Serpentina, Homoeopathy

## INTRODUCTION

Hypertension, one of the most common diseases worldwide, is estimated to affect one quarter of all adults and has been identified as leading cause of mortality. The etiology of hypertension is multifaceted, with potential roles for genetic, psychological, and

environmental variables. But there are many physiological mechanisms at play, and it's unclear exactly how psychosocial factors and hypertension are related. One of the most prevalent mental illnesses in adults is anxiety, which poses a serious threat to people's health and quality of life in many nations due to the serious public health issues that both anxiety and hypertension present. Rauwolfia Serpentina is mentioned in the homoeopathic literature as one of the best remedies to treat hypertension particularly when it is associated with anxiety.

Rauwolfia Serpentina is also called as Indian snake root, which belongs to Apocynaceae family. It is indicated in high blood-pressure without marked atheromatous changes in the blood vessels. A state of the congestion, hot feeling over the body, either with or without perspiration, and accompanied with a headache that is quite intense and a general feeling of unease is seen in this remedy. Heat flushes and paroxysmal sweating at axilla, foot, hands. Sticky, unpleasant sweat and overall restlessness. Dryness of mouth, throat, lips, and nose are some of the important indications. In addition, beneficial for agitated psychotic state, enhanced emotional

excitability and mood swings, including irritation, excitability, moderate sadness, and inner restlessness, with irregular beats, reduction in memory and focus capacity. This remedy acts as sedative and induces sleep.

**OBJECTIVE OF THE STUDY:** To show the effectiveness of various potencies of Rauwolfia Serpentina in treatment of anxiety related hypertension through sphygmomanometer readings.

**NULL HYPOTHESIS (H0):** There is no difference in the improvement of blood pressure before and after treatment with Rauwolfia Serpentina in anxiety related hypertension.

**ALTERNATE HYPOTHESIS (H1):** There is difference in the improvement of blood pressure before and after treatment with Rauwolfia Serpentina in anxiety related hypertension.

**MATERIALS AND METHODS:**

**Source of data:** patients from OPD, IPD and CAMPS of MNR Homoeopathic Medical College & Hospital.

**Type of study:** Experimental study

**Sample size:** 20

**INCLUSION CRITERIA:**

- ✓ Age group b/w 25 - 40 years.
- ✓ Both sexes irrespective of socioeconomic status and religion.
- ✓ Cases with stage Patients having Blood Pressure – stage -1, (more than 120/80,) stage -2 (140/80 to 159/90), stage 3 (180/110) are taken for study.
- ✓ Cases with diagnosed anxiety disorder, suffering with hypertension are only taken for study.
- ✓ People who are willing to give consent.

**EXCLUSION CRITERIA**

- ✓ Samples below 25 and above 40 years of age are not included.
- ✓ Patients having Hypertension associated with systemic illness like renal disease or

Heart diseases, Arteriosclerosis, Aneurysms etc. are not taken into study.

- ✓ Cases with systemic complications not considered for study.
- ✓ Pregnant and lactating women are excluded.

**DATA COLLECTION:**

A pre-designed case pro-forma of MNR Homoeopathic Medical College and Hospital used to collect data. The case history was taken with holistic concept (etiological factors, mental generals, physical generals, concomitants, characteristics particulars). Blood pressure is measured using sphygmomanometer by calculating the average of 3 consecutive readings at separate visits.

**MEDICINE INTERVENTION:** The selected cases for study are given Rauwolfia Serpentina. Potency is selected according to the susceptibility, age, pathology, anxiety levels. Dosage is adjusted according to patient's condition.

**FOLLOW UPS:**

Cases were evaluated for the subjective and objective changes every week. Each patient was monitored for at least nine months during the period of study, following the start of treatment in order to evaluate the rate of improvement and recurrence. Each case was carefully examined during the follow-up, including the severity of symptoms before, during, and after treatment.

**ASSESSMENT OF EFFECTIVENESS:**

Three criteria were used to evaluate the drug's effectiveness: better overall health, elimination or reduction of symptoms, and clinical improvement and difference in readings of sphygmomanometer.

**PLAN AND DATA ANALYSIS:** Descriptive statistics were used to analyse the data, and the

results were then presented using tables, percentages, and graphs as necessary. Paired "t-test" was used to determine the significance

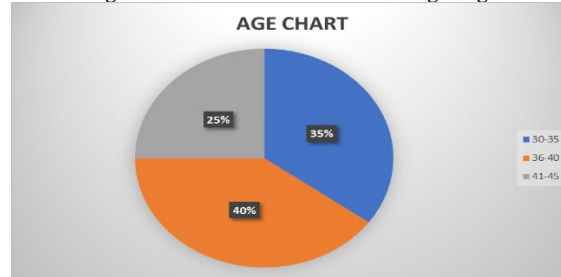
of the treatment before and after using homoeopathic medicine Rauwolfia Serpentina.

## OBSERVATIONS AND RESULTS

**Table - 1: Distribution of cases according to age:**

S.NO	AGE	CASES	PERCENTAGE
1	30-35	7	35%
2	36-40	8	40%
3	41-45	5	25%

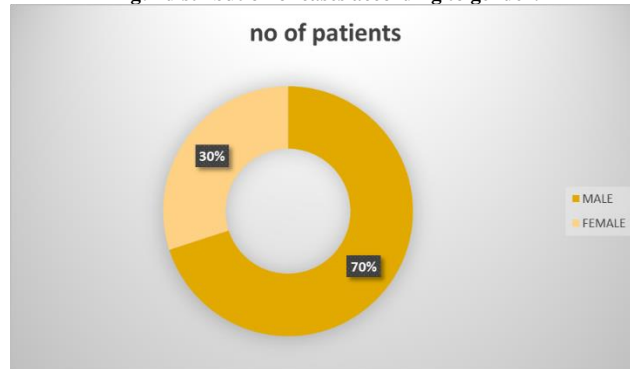
**Fig: - 1 Distribution of cases according to age**



**Table 2: Distribution of cases according to gender:**

GENDER	NUMBER OF PATIENTS	PERCENTAGE
MALE	14	70%
FEMALE	6	30%

**Fig:2 distribution of cases according to gender:**



**Table 3: Distribution table according to the occupation:**

sno	Occupation	Number of pts	percentage
1	Business	13	65%
2	Home maker	2	10%
3	Employees	5	25%

**Table 4: Distribution table according to elicited cause of anxiety related hypertension**

Sno	Etiology	Number of pts	percentage
1	Financial issues	12	60%
2	Health issues	3	15%
3	Pressure at work area	5	25%

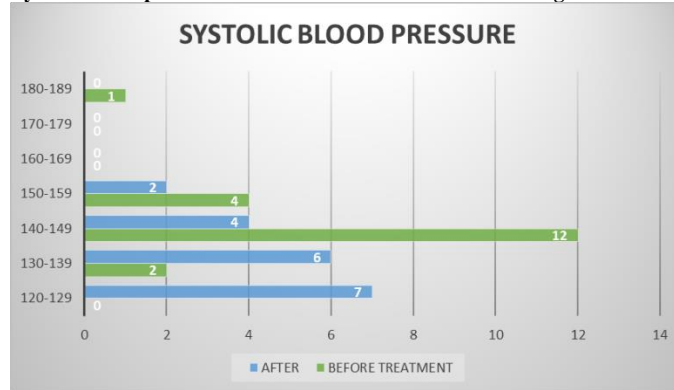
**Table 5: distribution of insomnia cases in anxiety related hypertension cases:**

Sno	SYMPTOM	Number of pts	percentage
1	Disturbed sleep at nights	15	75%
2	Difficult in falling sleep	3	15%
3	Good sleep	2	10%

**Table 6: - Distribution of Systolic Blood Pressure before and after treatment according to number of patients:**

SYSTOLIC BLOOD PRESSURE (mm of hg)	Before treatment No of patients	After treatment No of patients
120-129	0	8
130-139	3	6
140-149	12	4
150-159	4	2
160-169	0	0
170-179	0	0
180-189	1	0

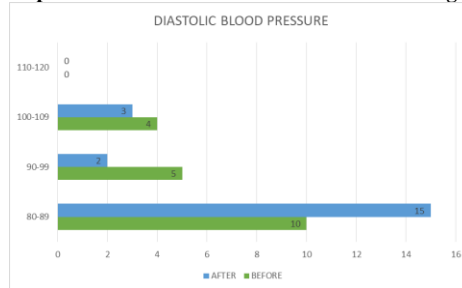
**Fig: - 3 - Systolic blood pressure before and after treatment according to number of patients**



**Table:7 Distribution of Diastolic blood pressure before and after treatment according to number of patients.**

DIASTOLIC BLOOD PRESSURE (mm of Hg)	Before treatment No of patients	After treatment No of patients
80-89	10	15
90-99	5	2
100-109	4	3
110-120	0	0

**Fig: - 4 -Diastolic blood pressure before and after treatment according to number of patients.**



**Table 8: Systolic and diastolic blood pressure before and after treatment**

S.NO	AGE/SEX	SBP Before treatment	SBP After treatment	DBP Before treatment	DBP After Treatment
1	39/F	154	130	90	80
2	40/M	190	130	80	80
3	40/M	140	120	84	80
4	39/M	130	120	90	80
5	38/M	150	130	100	80
6	36/M	142	120	94	82
7	40/M	140	128	80	80
8	44/M	142	142	100	100
9	33/M	144	130	80	80
10	33/M	142	120	90	80
11	41/M	184	184	100	100

12	45/F	150	150	100	100
13	32/M	130	120	80	80
14	30/M	140	120	80	80
15	37/F	140	140	90	90
16	45/M	140	130	80	80
17	45/M	140	140	90	90
18	32/F	142	130	84	80
19	31/F	140	140	80	80
20	32/F	140	140	80	80

Fig 5: Systolic blood pressure before and after treatment

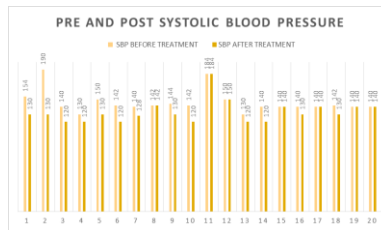


Fig:6 Diastolic blood pressure before and after treatment

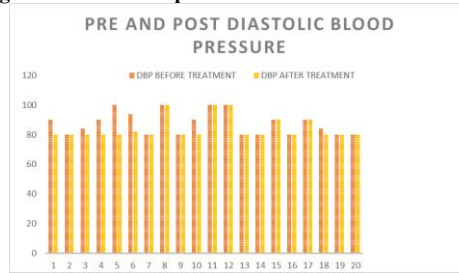


Table 9: Distribution of cases according to their improvement:

s.no	Remark	cases	percentage
1	improved	13	65%
2	moderate	7	35%

Fig: 7 Improvement of patient:

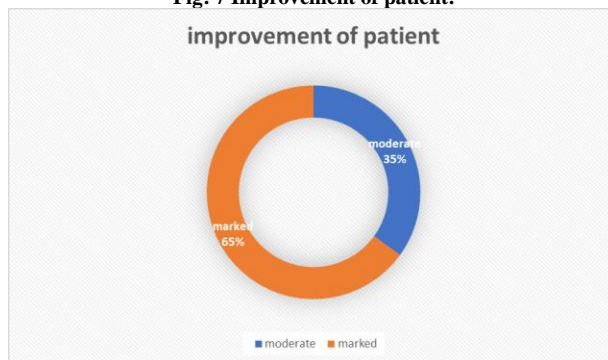


Table 10: Distribution table according to potency used

Sno	potency	Number of pts	percentage
1	Mother tincture	2	10%
2	30	3	15%
3	200	11	55%
4	1M	4	20%

**STATISTICAL ANALYSIS:**

The two-tailed P value is less than 0.0001

**Paired t test:**

P value and statistical significance:

By conventional criteria, this difference is considered to be extremely statistically significant.

Confidence interval:

The mean of Group One minus Group Two equals -1.30

95% confidence interval of this difference:  
From -1.76 to -0.84

Intermediate values used in calculations:

$t = 5.9402$

$df = 19$

Standard error of difference = 0.219

## DISCUSSION

Seven patients, or 35 percent of the total, are found to be in the 30- to 35-year-old age group; eight patients, or 40 percent of the total, are found to be in the 36–40–year-old age group; and five patients, or 25 percent of the total, are found to be in the 41–45. Based on this study, we may conclude that those between the ages of 36 and 40 are most likely to experience anxiety-related hypertension. The above research study has shown that 6 patients, or 30% of the total, are female, and 14 patients, or 70% of the total, are male. This indicates that men are more likely than women to have anxiety-related hypertension. According to the study, 60% of patients experience financial difficulties that contribute to the development of anxiety-related hypertension; 15% of patients experience health problems that cause anxiety-related hypertension; and 25% of patients experience stress at work as a cause of anxiety-related hypertension. Out of 20 cases 13 cases have shown improvement in the systolic blood pressure and 15 cases came down to normal diastolic blood pressure. According to the research study's results, 13 patients, or 65% of the total, have demonstrated a significant improvement, while 7 patients, or 35% of the total have demonstrated a moderate improvement. Thus, we can draw the conclusion that Rauwolfia Serpentina significantly lowers hypertension associated with anxiety.

## CONCLUSION

According to the study, anxiety-related hypertension is more common in men in the 35-40 age range. Most patients experience financial difficulties and workplace stress, which lead to the development of anxiety-related hypertension. The intervention has been shown to lower both systolic and diastolic blood pressure. It benefited the patient's anxiety levels and sleep complaints. Furthermore, statistically this difference is regarded as being highly statistically significant because the two-tailed P value is less than 0.0001. Consequently, we can draw the conclusion that Rauwolfia serpentina has a significant role in lowering anxiety-related hypertension.

### *Declaration by Authors*

**Ethical Approval:** Approved

**Acknowledgement:** None

**Source of Funding:** None

**Conflict of Interest:** The authors declare no conflict of interest.

## REFERENCES

1. Davidsons (2018) - principle and practice of medicine, 23<sup>rd</sup> edition published by Elsevier page -509, 510.
2. Laura W. Roberts-(2019) the American psychiatric association publishing textbook of psychiatry 7<sup>th</sup> edition, with forward by Robert E. Hales and Stuart c. Yudofsky, page 332
3. Park. K (2023) - Textbook of preventive and social medicine 27<sup>th</sup> edition published by Banarsidas Bhanot, page number 403,404.
4. Braun Wald's Heart Disease (2019) - a textbook of cardiovascular medicine 9<sup>th</sup> edition published by Elsevier, Edited by Bonow Mann, Zipper page 935,936.
5. Dr N.K Banerjee (1997)-blood pressure etiology and homeopathic management published by b Jain publisher (p) ltd.
6. William Boricke (2017) pocket manual of Homeopathic materia medica published by Indian book and periodical publisher
7. Robin murphy (2021) lotus materia medica published by b. Jain publishers (p) ltd.

8. Kamal Hansal - (2016) - the handbook of homoeopathic mother tinctures-published by Indian books and periodicals publishers
9. Maxine A, Papadakis, Michael W Rabow, (2022) -current medical diagnosis and treatment 62th edition published by McGraw hill professional
10. Samuel Hahnemann – (1810) Organon of Medicine 6th edition published by Richard Haehl in 1921.

How to cite this article: Faizaan Ahmed Siddiqui, Ambala Sriharitha. A clinical study to ascertain the efficacy of various potencies of “Rauwolfia Serpentina” in anxiety related hypertension in middle age group adults. *International Journal of Research and Review*. 2024; 11(1): 236-242. DOI: <https://doi.org/10.52403/ijrr.20240125>

\*\*\*\*\*