RESEARCH ARTICLE

Evaluate the effectiveness of homeopathic medicine rauwolfia q in the management of high blood pressure, a single blind placebo controlled study

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ABSTRACT

High blood pressure is the by-product of contemporary civilization and it has turn into a "Silent killer" due to our current stressful life. High BP is not a disease, but a symptom or sign of internal malodor pathological course of action. The force exerted by blood upon the blood vessel wall while it flows through it (especially the arteries) is known as blood pressure. A blood pressure reading less than or equal to 120/80 mm Hg is considered as the normal blood pressure range. High blood pressure is diagnosed if, when it is measured on two different days, the systolic blood pressure readings on both days is ≥140 mmHg and/or the diastolic blood pressure readings on both days is ≥ 90 mmHg.

Methods: Simple randomized sampling and Experimental study design with experimental and control group. 80 patients were involved in study having age group 30 years to 60 years, both gender and all socioeconomically classes. Test group A 40 cases received homoeopathi c medicine Rauwolfia Q and Control Group B, received Placebo up to 9 month and result observed.

Results: Data were analyzed by student T test for study parameter like Headache, Irritation, and Nausea. The test has shown statistically signi ficant results between mean differences of Test and Control Groups.

Conclusion: Hence finally it is concluded that, there is significant difference in result between groups of Hypertension patients receiving homoeopathic medicine Rauwolfia Q and placebo. Rauwolfia Q is significantly effective than placebo.

Key Words: *Hypertension; Homoeopathy, Rauwolfia Q and Placebo*

INTRODUCTION

High Blood pressure or Hypertension is an main global public health challenge because of its role in the causation of Coronary Heart Disease (CHD), stroke and other vascular complications to a population undergoing socioeconomic evolution. It is directly responsible for 57% of all stroke deaths and 24% of all CHD deaths in India [1].

According to the National Family Health Survey (NFHS) 4-National fact sheet, the incidence of hypertension is more common in male (13.6%) than female (8.8%) population and also it is more common in urban population than the rural. There is major difference in High Blood pressure in rural and urban people [2]. In their study, determined that the overall prevalence of High Blood Pressure in India is 29.8%, which is significantly different between rural (27.6%) and urban (33.8%) population. The increasing incidence of High Blood pressure is attributed to population growth, ageing and behavioral risk factors such as unhealthy diet, harmful use of alcohol, lack of physical activity, excess weight and exposure to persistent stress [3]. Worldwide urbanization, sedentary lifestyle, stress at workpl ace, lack of physical activity and social support lead to increased

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anxiety and uncertainty and finally to chronic mental and emotional stress. Anxiety is also anticipated as a major factor contributing to the development of High Blood Pressure [4].

The most important goal of therapy for High Blood pressure should be effective control of BP to prevent, reverse or delay the progression of complications and thus diminish the overall risk of a person with no adversely affecting the quality of life. Patients can be dividing into different groups on their risk factor. In low-risk cases, it is recommended to institute lifestyle modification and observe Blood Pressure for 2 months–3 months, prior to decide whether to begin medicine [5]. The treatment of High Blood pressure is multidisciplinary in nature and is based on drug and non-drug strategies, and the latter are managed and supported by lifestyle modification. Lifestyle modification in hypertensive patient's shows 60% goal achievement in BP, and this modification seem to be important especially for the young, male and obese patients [6,7].

World health organization said that, Homoeopathy is the second most useful healthcare system in the world. There are several medicines enlisted in homoeopathic literature for managing elevated BP. In all the studies reported, lifestyle modification was an integral part of the management. Preclinical study [8] with homoeopathic medicine Rauwolfia serpentina indicated its efficacy to reduce systolic Blood Pressure. The case reports [9], observational studies and randomized controlled trial published using Homoeopathy in High blood pressure has shown some positive effects in managing it. Samual Hahnemann, the father of Homoeopathy, aimed at achieving 'a rapid, gentle and permanent restoration of the health', which seemed to him easier to achieve with his last dynamisation method [10].

LIFESTYLE MODIFICATION

Physical activity

Person who were involved in physical labour like exercise, walking or cycling for>30 min/day regularly were asked to continue their routine activities. Patients engaged in sedentary life style or less physical activity, as assessed in the initial interview, were advised habitually motivated to walking, cycling for at least 30 min daily.

Diet modification

Diet alteration for every patients included Dietary Approaches to Stop High Blood Pressure diet (reduction in daily intake of total calories, refined carbohydrates and fats, are not to exceed 20 g/day) and addition of fibre-rich foods (whole grains, legumes, green vegetables and fruits) modified according to their area and traditions. All patients were strongly encouraged to avoid alcohol intake and to stop smoking.

MATERIAL & METHODOLOGY

Study setting

This study was carried out at Limbdi Homoeopathic Medical College & Hospital, Limbdi.

Selection of samples

Samples includes 80 cases of High Blood Pressure in the age group of 30 years-60 years age, meeting to the diagnostic criteria of High Blood Pressure

Study design

Placebo controlled experimental study design.

Statistical techniques and data analysis

Statistical analysis was be done by Student T test.

Statistical analysis

The study is carried out with title evaluate the effectiveness of homoeopathic medicine Rauwolfia Q in the management of High Blood Pressure , a single blind placebo controlled study to at Limbdi Homoeopathic Medical College & Hospital, Limbdi

Two group of patients are formed in which 1st group "A" (test group) [N=40] is received oral medicine Rauwolfia Q and 2nd group "B" (control Group) [N=40] is received placebo. The patient assessment for Headache, Irritation, Nausea and ADR after administering the medicine and placebo in both groups.

Data was analyzed using Statistical Package for Social Sciences (SPSS). Version 17.0. Test of significance applied were paired t-test used for measures of Headache, Irritation, Nausea & ADR (Altered daily routine) in study and independent sample test is used to compare mean differences of both groups

The level of significance was P< 0.05.

RESULTS

Statistical analysis

Intra-group analysis by student's paired t test

Intra-group statistical analysis (by Student's t Test) was done in Group A and Group B separately to analyses whether the treatments given in Group A in Group B is significantly effective to reduce parameters or not. (Degree of Freedom–39)

(A) Headache (Table 1)

TABLE 1

Student's Paired t Test: (in Group A and in Group B)

Group	BT/AT	N	Mean	SD	SE	t	P
Group A	BT	40	5.625	1.39	0.219	11.233	<0.0001
	AT	40	1.5	2.16	0.341		
Group B	BT	40	5.575	1.338	0.211	4.26	<0.0001
	AT	40	4.05	2.112	0.333		

(B) Anxiety (Table 2)

TABLE 2

Student's Paired t Test: (in group A and in group B)

Group	BT/AT	N	Mean	SD	SE	t	P
Group A	BT	40	2	0.816	0.129	6.026	<0.0001
	AT	40	0.875	0.822	0.13		
Group B	BT	40	2.15	0.802	0.126	1.356	0.183
	AT	40	1.925	1.023	0.161		

(C) Palpitation (Table 3)

TABLE 3

Student's Paired t Test: (in group A and in group B)

Group	BT/AT	N	Mean	SD	SE	t	P
Group A	BT	40	1.775	1.074	0.169	8.374	<0.0001
	AT	40	0.375	0.54	0.085		
Group B	BT	40	1.9	0.955	0.151	5.237	<0.0001
	AT	40	1.1	0.744	0.117		

(D) ADR (Table 4)

TABLE 4

Student's Paired t Test: (in group A and in group B)

Group	BT/AT	N	Mean	SD	SE	T	P
Group A	BT	40	1	0	0	12.49	<0.0001
	AT	40	0.2	0.405	0.064		
Group B	BT	40	1	0	0	2.623	0.0124
	AT	40	0.85	0.361	0.057		

Comparison between group A & B by student's unpaired t Test

To compare efficacy of both treatments, statistical analysis is done by Student's unpaired t Test. (Degree of Freedom–78)

(A) Headache (Table 5)

TABLE 5

Student's unpaired t Test (Comparison group A and group B)

Group	N	Mean Diff	SD	SE	T	P
Group A	40	4.125	2.323	0.367	5.266	<0.0001
Group B	40	1.525	2.088	0.33		

As value of p is less than 0.05, highly significant difference is observed between the mean of difference of Group A and Group B in Headache score. Mean score of Group A is more than that of Group B. Hence it is concluded that Rauwolfia Q is significantly effective than Placebo drug to reduce Headache in High Blood Pressure.

(B) Anxiety (Table 6)

Table 6

Student's unpaired t Test (Comparison group A and group B)

Group	N	Mean Diff	SD	SE	T	P
Group A	40	1.125	1.181	0.186	4.389	<0.0001
Group B	40	0.225	1.05	0.166		

(C) Palpitation (Table 7)

TABLE 7

Student's unpaired t Test (Comparison Group A and Group B)

Group	N	Mean Diff	SD	SE	T	P
Group A	40	1.4	1.057	0.167	2.65	0.0098
Group B	40	0.8	0.966	0.152		

(D) ADR (Table 8)

TABLE 8

Student's unpaired t Test (Comparison group A and group B)

Group	N	Mean Diff	SD	SE	T	P
Group A	40	0.8	0.405	0.064	7.571	<0.0001
Group B	40	0.15	0.361	0.057		

As value of p is less than 0.05, highly significant difference is observed between the mean of difference of Group A and Group B in altered daily routine score. Mean score of Group A is more than that of Group B. Hence it is concluded that Rauwolfia Q is significantly effective than Placebo drug to improve altered daily routine in High Blood

CONCLUSION

Homeopathic medicine in the treatment of High Blood pressure is proved effective clinically, but further scientific researches need to be done. Managing an individual having High Blood pressure with homeopathic Medicine is an art, the success of treatment is based upon the selection of a drug similar in picture to the acute totality, followed by the administration of suitable constitutional homoeopathic medicine. Strict daily routine regarding diet and life-style modifications is very important factor.

DISCUSSION

Study was carried out in 80 subjects those having clinical manifestation of High blood pressure, study subject were divided in to two group A 40 subject given medicine (Rauwolfia Q) and group B 40 subject given Placebo. High Blood Pressure is a group of symptoms that occur together, including repeated Head pain, nausea, anxiety, palpitation, irritation. Rauwolfia Q group has shown effectiveness with the study group those prescribed with remedy Rauwolfia Q Control group also shown some modulation and fewer positive effects. As all subjects were asked for diet and regimen including placebo or control group.

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