



Effect of Aromatic Medicine (YA HOM TEP PRA CHIT) on Patients with Hypertension

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ABSTRACT

Introduction: Aromatic medicine, using herbal remedies to help decrease blood pressure. There is a formulation that helps to treat lower blood pressure. It has properties to decrease blood pressure levels and nourish the heart called “YA HOM TEP PRA CHIT.”

Objective: The main objective of this study is to determine if adding aromatic medicine can decrease blood pressure with standard treatment for a patient with hypertension compared to standard treatment.

Methods: Study on the patient with hypertension in Wiang Chiang Rung Hospital. After purposive sampling, 80 patients were divided into 2 groups. The 40 people in the intervention group were treated by Select subjects based on screening with inclusion and exclusion criteria and were randomized into 2 groups such as the experimental group of patients taking Enalapril 5-15 mg /day) with Taking a dose of YA HOM TEP PRA CHIT 3 capsules 3 times before meal (1,200 mg/day) once a day in the morning by the standards and evaluation satisfaction after the treatment

Results: The results of the study concluded that the average blood pressure at the pretest and post-test in the experimental group had an average decrease. Baseline characteristics between the treatment and control groups were similar. Before the treatment, the systolic blood pressure of the intervention and control group in term of after the treatment showed the average systolic blood pressure of the control group before joining the study and before the treatment are 153.13,153.83,153.93,154.98, and 154.98. The average diastolic blood pressure of the intervention group before joining the study and before the treatment showed the average diastolic blood pressure of the control group before joining the study and before the treatment are 84.38,85.05,85.53,86.15, and 86.40.

Conclusion: For the comparison of average systolic blood pressure after the treatment of both groups are statistically significant differences at the 0.05 level, but before the experiment, the average systolic blood pressure of both groups does not have statistically significant differences at the 0.05 level. And for the comparison of average diastolic blood pressure after the treatment in week2-4 of both groups are statistically significant differences at the 0.05 level.

Keywords: YA HOM TEP PRA CHIT; blood pressure; hypertension

Introduction

Hypertension is a major public health problem in Thailand. Currently, several changes cause changes in behavior. The hustle of life affects your health and body, causing even more. High blood pressure can cause many

complications. The most common complication of hypertension is heart coronary artery disease, kidney disease, kidney failure, and other complications. The World Health Organization survey and data collection of hypertensions around the world found that the death rate up to 12.8% of all mortality, or approximately 7.5

million people per year, and in May will have a patient population of 2025 is hypertension increased 1.2-1.5 billion people.[1] 2 and 3 in the pathogenesis of hypertension occur in developing countries in East Asia and Southeast today found the incidence of the disease is 1 in 3 people will suffer from high blood pressure. In Thailand, the number of patients with hypertension who registered more year, in 2017 the population of patients with hypertension registered an increase of 12,342.14 14,926.47 per 100,000 population and in Region 1 healthy body, including Chiang Mai, Lamphun, Phayao, Mae Hong Son and Chiang Rai, Phrae, Nan certain rate of patients with hypertension were 94,408 new cases in which the offense itself [2]. Chiang Rai has a new 1565.79 cases per 100,000 people in the year 2011. Department of Non-Communicable Diseases Department of Disease Control survey of high blood pressure both male and female, aged 15-74 years, hypertension often occurs in males: female ratio was 1.7: 1, most commonly between the ages 60 and over, followed by the age range of 40-59 years and an age range 15-39 years.[3] The severity classification of hypertension among adults aged 18 years and over was based on blood pressure levels measured in clinics, hospitals, or public health facilities. Hypertension care in Thailand: best practices and challenges, 2019. World Health Organization. Country Office for Thailand. Optimal systolic blood pressure < 120 and diastolic blood pressure < 80, Normal 120-129 and/or 80-84, High normal systolic blood pressure 130-139 and/or diastolic blood pressure 85-89, Hypertension level 1 systolic blood pressure diastolic blood pressure 140-159 and/or 90-99, Hypertension level 2 systolic blood pressure diastolic blood pressure 160-179 and/or 100-109, Hypertension level 3 systolic blood pressure diastolic blood pressure 180 and/or 110 and isolated systolic hypertension (ISH) systolic blood pressure diastolic blood pressure 140 and < 90. Treatment of hypertension is often mainly used to treat the medicine, patients taking drugs to lower blood pressure levels. This treatment is only for the good of the patient's symptoms are not worse than they were. The doctors have to learn to treat high blood pressure by focusing on behavior modification, controlling diet weight (Level of BMI) within the normal range, exercise, and mental health treatment. Otherwise, there is also hypertension treatment by using massage to help reduce blood pressure levels and remain at or below 130/85 mm Hg. to prevent complications and symptoms that may occur in the future.[4] Previous research has studied this quasi-experimental research Clinical practice guideline in Thai Traditional medicine for patients with hypertension in Chiang Saen Hospital 2014 showed that the treatment of hypertension can lower blood pressure as the systolic and diastolic equivalent of treating hypertension with medicine today [5,6] and education study massage therapy for essential

hypertension: a systematic review showed that massage may play a critical role in controlling high blood pressure in the treatment of primary support therapy, when combined with high blood pressure, may be more effective than drugs for high blood pressure as well as reductions in systolic blood [7] and a study of the effect Massage therapy for essential hypertension: a systematic review showed that massage may play a critical role in controlling high blood pressure in the treatment of primary support. Massage therapy, when combined with high blood pressure, may be more effective than drugs for high blood pressure as well as reductions in systolic blood pressure and a study of the effect of Massage therapy for essential hypertension: a systematic review showed that massage may play a critical role in controlling high blood pressure in the treatment of primary support. Massage therapy, when combined with high blood pressure, may be more effective than drugs for high blood pressure as well as reductions in systolic blood pressure.[7] From the above, you can see that taking a dose of YA HOM TEP PRA CHIT 3 capsules 3 times before meal (1,200 mg/day) may help lower the blood pressure of patients to come back in the stable or less than the original. Thus, the authors of the research promote the use of traditional medicine in Thailand to treat patients with high blood pressure further. Researchers are interested to study the efficacy and safety of the YA HOM TEP PRA CHIT formula that can decrease blood pressure with standard treatment on a patient with hypertension and compare patients with hypertension with standard treatment.

Methodology

The study design was Quasi-Experimental research that compared the intervention and the control group by collecting data from a sample group of male or female patients aged 34-59 years. After purposive sampling, 80 patients were divided into 2 groups 40 people each based on the criteria of the inclusion criteria as has been diagnosed with essential hypertension or primary hypertension and receiving high blood pressure treatment by taking Enalapril 5-15 mg. once a day in a morning by the standards of the Wiang Chiang Rung Hospital Chiang Rai, blood pressure ranges from 140/90 mmHg but not exceeding 160/100 mmHg, not have dyspnea/chest pain/pulse rate more than 100 times/minute and irregular pulse, no complications as a result of high blood pressure to the target organs such as the kidneys or the heart and so on, and no other common diseases such as high blood lipid or diabetes, asthma, heart disease, cancer, stroke and renal disease based on the history of treatment, and pleased to cooperate in this study. The two groups signed the consent form to participate in the study. Discontinuation criteria are blood pressure is greater than or equal to 160/100 mmHg

From blood pressure monitoring to 2 rounds[8] (according to the schedule of activities), found symptoms of cardiovascular disorders such as chest pain, etc., or signs of urinary tract disorders, such as urinary incontinence, bloody urine, etc., found a disease that occurred during the research was diagnosed as life-threatening if still in the research stage and not treated, do not follow the rules of research or not follow the schedule, and want to withdraw from this study. The 40 people in the intervention group were treated such as the experimental group Patients taking Enalapril 5-15 mg /day) by the standards for the treatment of hypertension in early-stage patients, the dose of Enalapril was able to control blood pressure due to its 24 -hour duration by taking a dose of YA HOM TEP PRA CHIT 3 capsules 3 times before meal (1,200 mg/day) once a day in a morning by the standards of the Wiang Chiang Rung Hospital Chiang Rai, and evaluation satisfaction after the treatment at week4.

Statistical analysis

The study duration is 8 weeks containing the steps for preparation, clinical examination, and collecting data. The steps for preparation. Study documents and related research. Contact the relevant authorities and gather the required information. Procedures for ethical research are the step for clinical examination and collecting data. Choose population and clinical examination process. The step for process and analyzing the data. Explain statistics of variable data by mean percentage and standard deviation. Use independent sample t-test and SPSS program to compare mean between experimental group and control group. All statistical tests were performed at a two-sided p-value less than 0.05 levels.

Results

This research is quasi-experimental research to study the effect of high blood pressure treatment by an experimental group of patients taking Enalapril 5-15 mg /day) taking a dose of YA HOM TEP PRA CHIT 3 capsules 3 times before meal (1,200 mg/day) with standard treatment and control group taking standard treatment and taking Enalapril 5-15 mg. Once a day in the morning. Measurement of blood pressure and side effects and also compared the satisfaction of those who

received high blood pressure treatment at Wiang Chiang Rung Hospital, Wiang Chiang Rung District, and Chiang Rai province. The research team collected data from 80 patients, divided into 40 experimental groups and 40 control groups. The data was analyzed and presented in the form of a lecture table divided into 3 parts.

Part 1: General characteristics of the sample

Personality

The general characteristics of the sample show the characteristic of the sample group. The most gender in the sample group is female; the experimental group is 60.00 percent and the control group is 65.00 percent. The most age in the experimental group is 50-54 and 55-59 years old with 40.00 percent. Then the second is 45-49 and 40-44 years old with 7.50 percent the most age in the control group is 50 – 54 years old with 32.50 percent. The most Marital status is married which has the same in 2 groups. Married in the experimental group has 85.00 percent and, in the control, the group has 80.00 percent.

Part 2: The result of the treatment of hypertension by YA HOM TEP PRA CHIT 3 capsules 3 times before meal (1,200 mg/day) in combination with taking Enalapril 5-15 mg per oral once a day in the morning.

From table 1, the comparison of the result of the treatment by YA HOM TEP PRA CHIT 3 capsules 3 times before meal (1,200 mg/day) in combination with taking Enalapril 5-15 mg. per oral once a day in the morning of the intervention and the control group in term of before the treatment showed that an average of systolic blood pressure of the intervention group before joined the study and before the treatment in week1, week2, week, and week4 are 151.50, 138.40, 133.48, 130.83 and 129.93. The average systolic blood pressure of the control group before joining the study and before the treatment in week 1, week 2, week 3, and week 4 were are 153.13, 153.83, 153.93, 154.98, and 154.98. The average diastolic blood pressure of the intervention group before joining the study and before the treatment in week 1, week 2, week 3, and week 4 are 84.23, 83.78, 81.53, 80.78, and 81.28. The average diastolic blood pressure of the control group before joining the study and before the treatment in week 1, week 2, week 3, and week 4 are 84.38, 85.05, 85.53, 86.15, and 86.40.

Table 1 Showed an average, standard deviation and compares the average blood pressure of the intervention group (N = 40) and the control group (N = 40) before joining the study and before the treatment in week1, week2, week3, and week4 divide into systolic and diastolic

Blood Pressure		Blood Pressure (mmHg) Intervention group (N=40)		Blood Pressure (mmHg) Control group (N=40)	
		Mean	SD	Mean	SD
Systolic	Before	151.50	12.77	153.13	11.67
	Week-1	138.40	17.09	153.83	10.84
	Week-2	133.48	15.93	153.93	10.58
	Week-3	130.83	14.15	154.98	10.30
	Week-4	129.93	12.52	154.98	10.30
Diastolic	Before	84.23	12.07	84.38	11.82
	Week-1	83.78	14.80	85.05	11.54
	Week-2	81.53	17.51	85.53	11.48
	Week-3	80.78	13.02	86.15	11.26
	Week-4	81.28	12.04	86.40	11.46

Table 2 Showed an average standard deviation and compares the average blood pressure of the intervention group (N = 40) and the control group (N = 40) after the treatment in week 1, week 2, week 3, and week 4 divided into systolic and diastolic.

Note:*Statistical significance at the 0.05 level.

Blood Pressure		Blood Pressure (mmHg)		t	df	P-value
		Mean	SD			
Before						
Intervention group Systolic		151.50	12.77	-.594	78	0.554
Control group Diastolic		153.13	11.67			
Intervention group Systolic		84.23	12.07	-.056	78	0.955
Control group Diastolic		84.38	11.82			
Week1						
Intervention group Systolic		138.40	17.09	-4.820	78	0.000*
Control group Diastolic		153.83	10.84			
Intervention group Systolic		83.78	14.80	-.430	78	0.669
Control group Diastolic		85.05	11.54			
Week2						
Intervention group Systolic		133.48	15.93	-6.760	78	0.000*
Control group Diastolic		153.93	10.58			
Intervention group Systolic		81.53	17.51	-1.208	78	0.231
Control group Diastolic		85.53	11.48			
Week3						
Intervention group Systolic		130.83	14.15	-8.618	78	0.000*
Control group Diastolic		154.98	10.30			
Intervention group Systolic		80.78	13.02	-1.974	78	0.052
Control group Diastolic		86.15	11.26			
Week4						
Intervention group Systolic		129.93	12.52	-9.768	78	0.000*
Control group Diastolic		154.98	10.30			
Intervention group Systolic		81.28	12.04	-1.949	78	0.055
Control group Diastolic		86.40	11.46			

From table 2 the comparison of the result of the treatment by YA HOM TEP PRA CHIT 3 capsules 3 times before meal (1,200 mg/day) in combination with taking Enalapril 5-15 mg. per oral once a day in the morning of the intervention and the control group in term of after the treatment showed that 151.50,138.40,133.48,130.83 and129.93. The average systolic blood pressure of the control group before joining the study and before the treatment in week 1, week2, week3, and week4 is 153.13, 153.83, 153.93,

154.98, and 154.98. The comparison of average systolic blood pressure after the treatment in week-1,2,3 and week-4 of both groups are statistically significant differences at the 0.05 level, but before the experiment, the average systolic blood pressure of both groups is not statistically significant differences at the 0.05 level. The average diastolic blood pressure of the intervention group before joining the study and before the treatment in week 1, week 2, week 3, and week 4 are 84.23,83.78,81.53,80.78, and 81.28. The average of

diastolic blood pressure of the control group before joining the study and before the treatment in week 1, week 2, week 3, and week 4 are 84.38,85.05,85.53,86.15, and 86.40. For the comparison of average diastolic blood

Discussion

The results of the study concluded that the experimental group's average blood pressure at pretest and post-test had an average decrease. Baseline characteristics between the treatment and control groups were similar. Before the treatment, the systolic blood pressure of the intervention and control group is the comparison to the result of the treatment by YA HOM TEP PRA CHIT 3 capsules 3 times before meal (1,200 mg/day) in combination with taking Enalapril 5-15 mg. per oral once a day in a morning of the intervention and the control group in term of after the treatment showed that 151.50,138.40,133.48,130.83 and 129.93. The average of systolic blood pressure of the control group before joining the study and before the treatment in week 1, week 2, week 3, and week 4 were are 153.13, 153.83, 153.93, 154.98, and 154.98. The comparison of average systolic blood pressure after the treatment in week-1,2,3 and week-4 of both groups are statistically significant differences at the 0.05 level, but before the experiment, the average systolic blood pressure of both groups is not statistically significant differences at the 0.05 level. The average of diastolic blood pressure of the intervention group before joining the study and before the treatment in week1, week2, week3, and week4 are 84.23,83.78,81.53,80.78, and 81.28. The average diastolic blood pressure of the control group before joining the study and before the treatment in week1, week2, week3, and week4 are 84.38,85.05,85.53,86.15, and 86.40. For the comparison of average diastolic blood pressure after the treatment in week3 and week4 of both groups are no statistically significant differences at the 0.05 level. The effect of YA HOM TEP PRA CHIT on the circulatory system of the heart, brain, and throughout the body, which was discovered from modern research as evidence confirming the properties of aromatherapy. It has been found since ancient times that it helps to relieve palpitations, fainting, blackouts, dizziness, and dizziness. Beriberi, including symptoms due to low blood pressure and insufficient blood supply to the brain, resulting in increased blood flow of small blood vessels to the brain and peripheral organs of the entire body and organs outside the body, such as blood vessels that feed the hands, feet, etc. However, the use of YA HOM TEP PRA CHIT Should be used according to the indications and precautions as follows should be careful when eating with drugs in the anticoagulant group (anticoagulant) and antiplatelet drugs (antiplatelets) and

pressure after the treatment in week3 and week 4 of both groups are no statistically significant differences at the 0.05 level.

be careful with continued use of the drug. Especially in patients with hepatobiliary dysfunction. Because camphor accumulation and poisoning may occur and be careful with the drug in patients allergic to pollen.

Conclusion

This is consistent with the research on the treatment of high blood pressure by Court-type Thai traditional such as medical massage exercise combined with modern medicine can reduce blood pressure while heart compression and relaxation as well treatment of high blood pressure with modern medicine.[9] This is consistent with Chairat N.'s research that compares the treatment of hypertension between Court-type Thai traditional and modern medicine which compares the average systolic and diastolic blood pressure before and after the treatment in week4, week8, and week12 [5,10] of the intervention group and control group and the mean was significantly lower at 0.001. The comparison in each week shows that the mean was slightly decreased. The decrease is statistically significant at 0.05 levels. YA HOM TEP PRA CHIT formulation capsule was well tolerated. No clinically meaningful difference in the overall adverse event. There was no serious clinical adverse event. Frequent urination and diarrhea after taking medication were reported in both groups. For this reason, we are unable to make a definite conclusion about the effectiveness of the YA HOM TEP PRA CHIT formulation capsule. However, the results of this study can be used to estimate the sample size for bigger studies. In conclusion, the treatment of high blood pressure by YA HOM THE PRA CHIT can reduce blood pressure levels statistically significantly compared with modern medicine's treatment. Therefore, Thai traditional medicine should be applied to treat patients with hypertension combined with modern medical treatment.

Competing Interests

The authors declare no conflict of interest. The funders had no role in the design of the study in the collection, analysis, or interpretation of the data in the waiting of the manuscripts, or in the decision to publish the result.

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Author contributions

Conceptualization and methodology: T.T., and K.S. Visualization: T.T., K.S., and C.V. Formal analysis: T.T., K.S., and C.V. Writing original draft preparation: T.T.

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