



EFFECT OF CURRY LEAVES POWDER ON THE LEVEL OF BLOOD PRESSURE AMONG PATIENTS WITH HYPERTENSION

Arya S Nair

Lecturer, Global College Of Nursing, Nattalam, Tamilnadu.

ABSTRACT

Hypertension is an important public health challenge in both economically developing and developed countries. This study has been conducted to assess the effect of Curry leaves powder on the level of blood pressure among patients with hypertension. Quantitative research approach, one group pre test post test design was used for the study. 65 samples were selected by purposive sampling technique. Pretest and post-test blood pressure level was assessed by using a standardized sphygmomanometer. The result of the study shows that in the pre-test the mean score of systolic and diastolic pressure were 146.25 and 94.06 respectively. In post test II the mean score of systolic blood pressure was 131.09 and diastolic blood pressure was 79.06. The obtained 't' value was statistically significance at 0.05 level. It is interpreted that there is a significant difference in the blood pressure level of patients with hypertension. Hence the intervention of administering Curry leaves powder among patients with hypertension had a positive impact on the level of blood pressure.

KEYWORDS : Effect, Curry leaves powder, Blood pressure, effect, Assess

INTRODUCTION

Hypertension is one of the principle problems of society which is a silent killer whose onset is insidious. Hypertension is an important cause of cardiovascular morbidity and mortality. It is an imperative global public health problem and is most extensively documented risk factor for cardiovascular diseases, stroke and renal dysfunction. Progressive damage to major body organ is the most common complication of hypertension. End organ damage can lead to encephalopathy, renal failure, left ventricular failure, retinal haemorrhage etc. Hypertensive crisis is the severely elevated blood pressure equal or greater than a systolic blood pressure of 180mmHg and diastolic blood pressure of 110mmHg which produces significant and immediate risk of acute complications such as myocardial infarction and cerebrovascular accident. Untreated hypertensive crisis results in significant morbidity and mortality.

Hypertension is one of the most common medical problems. It does not usually cause any symptoms and it is not always diagnosed in the early stages. It is predicted that non communicable forms of cardiovascular diseases will become the leading cause of death and disability by 2020. Hypertension is more responsible for more deaths worldwide than any other causes. A prospective cohort study was conducted by Sree Chitra Thirunal Institute of Medical Sciences and Technology during the period of 2003-2010. Demographic characteristics and behavioural risk factors were determined by interview and samples underwent physical and biochemical examinations. A total of 297 samples between the age group of 15-64 were selected for the study. This focuses on the need for the improvement of awareness, treatment and control of hypertension in Kerala.

Murrayakoeingii (curryleaves) are a popular leaf spice used in very small quantities for their distinct aroma due to the presence of volatile oil and their ability to improve digestion. It belongs to Rutaceae family. The chemical composition of the fresh leaves consists of carbazole alkaloids and triterpene. It has phytochemical and pharmacological properties. Because of its antioxidant property it is effective in cardiovascular problems. Curry leaves powder is easily available homely grown which makes it cost effectiveness and easily affordable and accessible. It contains strong antioxidant properties which is effective in preventing cardiovascular problems including hypertension

MATERIALS AND METHODS

The objective of the study was, to evaluate the effect of Curry leaves powder on the level of blood pressure among patients with hypertension. Quantitative research approach, one

group pre test post test design was used for the study. Pre test and post-test blood pressure level was assessed by using a standardized sphygmomanometer. Formal permission was obtained from the concerned authority and written consent obtained from the subjects after explaining the nature and purpose of study. 65 subjects were selected by purposive sampling technique. As pre-test, Systolic blood pressure and diastolic blood pressure were assessed from the samples and they were instructed to continue their regular medication and life style modification and with that 5 Gms of curry leaves powder was provided after the breakfast for a period of 60 days continuously. Post test I was conducted on 31st day and post test II was conducted on 61st day after the administration of curry leaves powder.

RESULTS

a. Sample characteristics

Majority of the samples (44.6%) were between the age group of 40-50 years and 55.4% of samples were in between the age group of 51-60 years. 64.6% of samples were males and 35.4% of the samples were females. 13.8% of the samples completed their primary education, 27.7% of the samples were completed their higher secondary qualification and 20% of samples were graduate and above.

46.1% of the samples were private employee and 10.8% of the samples were having other works such as coolie works. 38.5% of samples have a monthly income of Rs 5001-10000 and 9.2% of samples were having monthly income of above Rs 15000.

44.6% of samples were diagnosed hypertension before 7-8 years, 40% of samples were diagnosed hypertension before 5-6 years and 15.4% of the samples were diagnosed hypertension before 3-4 years. 93.8% of samples were following regular treatment and 6.2% of samples were on irregular treatment for hypertension.

13.8% of samples have habits of smoking, 27.7% of samples have habits of alcoholism, 4.6% of the samples have both smoking and alcoholism and 53.9% of the samples have none of these habits. 20% of samples were vegetarians and 80% of samples were non vegetarians.

b. Effect of Curry leaves powder on level of blood pressure among patients with high blood pressure.

Mean standard deviation and t value of pre-test and post-test II diastolic level of blood pressure N=65

| Group | Mean | SD | Mean Difference | Paired t' test | P value |
|---------------------|-------|------|-----------------|----------------|---------|
| Pretest Diastolic | 94.06 | 4.95 | 15 | 16.83 | 0.002 |
| Post test Diastolic | 79.06 | 7.70 | | | |

*Significance at 0.01 level

Paired't test was done to find out the effect of curry leaves powder on level of blood pressure among patients with hypertension. It was found that there was a significant difference between pre-test and post-test level of systolic and diastolic blood pressure.

DISCUSSION

From the present study, the pre test score of systolic blood pressure was 146.25 and mean score of diastolic blood pressure was 94.06. The mean post test I score of systolic blood pressure was 138.28 and diastolic blood pressure was 85.93 was significantly reduced. It shows that the blood pressure was reduced among hypertensive patients. The obtained't value was statistically significant at 0.005 level. The mean score of post test II systolic blood pressure was 131.09 and post II diastolic blood pressure was 79.06 respectively. The obtained t value was statistically significant at 0.005 levels. Hence the intervention of administering Curry leaves powder among patients with high blood pressure had a positive impact on the level of systolic and diastolic blood pressure. The hypothesis of the study was intended to show the significant difference in the level of blood pressure before and after administering Curry leaves powder among patients with hypertension. Hence research hypothesis H1 is accepted. This shows the effectiveness of Curry leaves powder.

These findings are supported by a study conducted to know the impact of curry leaves supplementation on hypertensive subjects in India. The mean recorded value for systolic blood pressure was 147 ± 1.93 and diastolic pressure was 93 ± 0.87 mm Hg. After 30 days of supplementation of curry leaves chutney the value of systolic blood pressure was found to be decreased to 136 ± 2.14 mm Hg and that of diastolic blood pressure was 89 ± 0.62 mm Hg. The difference between systolic and 70 diastolic blood pressure at 30 days from their initial values was statistically significant ($P < 0.01$).

REFERENCES

1. Hypertension.[Internet] available from [https:// www.heart.org/en/healthtopics/high-blood-pressure](https://www.heart.org/en/healthtopics/high-blood-pressure)
2. Lewis, Dirkson, Heitkemper, Bucher. Lewis's Medical-Surgical Nursing: Assessment and Management of Clinical Problems. Elsevier Health Sciences; volume 1
3. Uncontrolled hypertension in creases risk of all cause and cardiovascular morbidity the NHANES III linked mortality study .[Internet]. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6010458/>
4. Stephan Hales [Internet]. [Cited 2018 June 1]. Available from: https://en.wikipedia.org/wiki/stephan_hales
5. Joyce M. Black, Jane hokanson Hawks. Medical surgical Nursing: Clinical Management for Positive Outcomes; elseiver Publications, volume 1; 8th edition
6. Hypertension [Internet] available from: <https://en.wikipedia.org/wiki/Hypertension>
7. World heart Foundation. Elevating Hypertension on the Public Health Agenda.[internet] .[cited 2018 may 17].Available from:<https://www.world-heartfederation.org/news/elevating-hypertension-public-health-agenda>
8. Mosca L, Benjamin EJ, Berra K, Bezanson JL, Dolor RJ, Lloyd-Jones DM, Newby LK, Pina IL, Roger VL, Shaw LJ, Zhao D. Effectiveness-based guidelines for the prevention of cardiovascular disease in women—2011 update: a guideline ii from the American Heart Association. Journal of the American College of Cardiology. 2011 Mar 22;57(12):1404-23
9. Indian council of Medical Research [Internet]. Available from: https://www.icmr.nic.in/sites/default/files/press_realease_files/Hypertension.pdf
10. Lippincott Williams, Wilkins. Manual of Nursing Practice, 8th edition. Mosby publications.
11. Phipps, Monahan, Sands, Neighbour, Marek. Medical Surgical Nursing, Health and Illness Perspective. Mosby Publications, 7th edition.
12. S N Chug. Text Book of Medical Surgical Nursing, Deepak publishers. Part 1.
13. Nahas R. Complementary and alternative medicine approaches to blood pressure reduction: an evidence-based review. Canadian Family Physician. 2008 Nov 1; 54(11):1529-33.