

# A study to assess the effect of lemon juice with honey on level of blood pressure among mothers with PIH admitted in maternity hospital from Sangli, Miraj, Kupwad corporation area

Tejashri Ananda Dalvi<sup>1</sup>, DR. (Mrs.) Nilima R. Bhore<sup>2</sup>

<sup>1</sup> Bharati Vidyapeeth (Deemed to be University), College of Nursing, Sangli, Maharashtra, India  
Email ID: tejashridalvi413@gmail.com

<sup>2</sup> Dean faculty of Nursing and Principal, Bharati Vidyapeeth (Deemed To Be) University  
College of Nursing, Sangli  
EMAIL: - nilimabhore@yahoo.com

Received: 14 April 2020 Revised and Accepted: 8 August 2020

**ABSTRACT:** A Quantitative study was conducted 'to assess the effect of lemon juice with honey on level of blood pressure among mothers with PIH admitted in maternity hospital from Sangli, Miraj, Kupwad corporation area.'

**OBJECTIVES** 1) To assess the level of blood pressure before administration of lemon juice with honey in experimental and control group. 2) To evaluate the effectiveness of lemon juice with honey on level of blood pressure in experimental group. 3) To compare the level of blood pressure between experimental and control group. 4) To find out association between pre-test level of blood pressure and selected demographic variables among experimental and control group.

**Keywords-** Lemon Juice with honey, Blood pressure, PIH Mothers.

## INTRODUCTION

Healthiness has long been observed as the most exclusive aim for people to realize. Without health, we cannot do any effort and we cannot recover in life. So, health is the primary need for each one of us<sup>1</sup>.

Pregnancy and childbirth are natural process in women. Still the reality is that women and children undergo and die as end result of child bearing process. Hypertension is the most worldwide medical Problem encounter in pregnancy and remains significant cause of maternal and fetal morbidity and mortality. In a multi center education that is primary health centre, sub centers, community health centers just about 30% of hypertensive disorder of pregnancy was due to persistent hypertension where 70% of the cases were diagnosed as gestational induced hypertension<sup>2</sup>. According the report of National centre of health statistic hypertension make problems around 37% of pregnancy in the India and 16% of pregnancy associated death from complication of pregnancy induced hypertension.<sup>3</sup> According to global health result overall 3- 10% of world is estimated to have pregnancy induced hypertension among which black women are at risk of 3 times more than white women to die from pre-eclampsia. It is common in developing countries. The reported incidence of hypertension disorder of pregnancy in India was 5.38% while pre-eclampsia, eclampsia accounted for 44% and 40% leading to 5.55% maternal mortality rate and 37.5% prenatal death rate<sup>4</sup>.

Pre-eclampsia can present as HELLP syndrome that is haemolysis, elevated liver enzymes and low platelet count or eclampsia that is occurrence of convulsion that cannot be attributed to other etiologic factors. Eclampsia is reported to be associated with a maternal mortality rate of 0.5-10% usually requiring high quality intensive care. Hypertension can be managed by pharmacological and non-pharmacological treatment. The drug used for treating hypertension includes diuretics, adrenergic inhibitors, direct vasodilators etc and these drugs have their own hyperuricemia, hypotension hypocalcemia as side effect. The non pharmacological management includes lifestyle modification as well as alternative therapy like exercises, diet, reduce weight, stress management, physical activity, moderation of alcohol consumption and lemon juice as home remedies<sup>5</sup>.

**REVIEW OF LITERATURE:**

I) TesfayeAberaGudeta, 2019 a cross sectional study was carried out on PIH and associated factors among women attending delivery service at Nizan-Tepi university teaching hospital, Euthopia. They are used 422 samples for data collection by systematic sampling technique. The result of prevalence of PIH was 33% gestational Hypertension, 36% mild Eclampsia, 45.5% were sever Eclampsia and with positive family history of PIH. They were concluded the prevalence of PIH among women was 7.9% having family history of PIH.<sup>11</sup>

II) Mrs.Uma Parvathi,2018, A study was conducted on evaluative study to assess the effectiveness of lemon juice on PIH among antenatal mothers in dommasarra PHC, benglor. In this study the method was used quasi experimental pre test and post test design with control group.total 30 samples were collected by using purposive sampling technique. The result shows that significant difference between pre test and post score of SBP. It concluded that the intake of lemon juice is effective for PIH<sup>15</sup>.

III) Esther OlusolaAluko, 2016 a study was conducted on honeys ability to reduce BP & HR in healthy male subjects. This study evaluated honeys ability to reduce SBP , DBP & HR in healthy male subjects. Honey was significantly decreased SBP & It consumption might have a beneficial effect<sup>20</sup>.

IV)Lemon juice helps to keep the blood vessels flexible and soft. By removing the rigidity from the blood vessels, the blood pressure levels will come down. You can lower your chances of complete heart failure by consuming lemon juice on a regular basis. The vitamin C in lemon juice is also a powerful antioxidant, which helps to neutralize free radicals and supports the immune system. All it takes is the juice from one lemon added to a glass of water. Consume this each morning, on an empty stomach<sup>24</sup>.

V) Taking a spoon or two a day of pure, natural honey can help to improve the health of your cardiovascular system and [prevent heart disease](#).A review of many studies on the effect of honey in preventing cardiovascular disease found that its natural antioxidants have a heart-protective effect. Researchers reported that compounds in honey help to prevent bad cholesterol, reduces blood pressure, and helps blood flow better. Studies have shown that the beneficial effect of raw honey on the cardiovascular system helps protect against stroke, heart attacks, and blood clots<sup>28</sup>.

**MATERIALS AND METHODS:**

The research design adopted was quasi-experimental research design – two group pre and post-test design. Sample size of 40 was divided into 2 groups, 20 each as experimental group and control group.The tool used for collecting data was demographic variables of Antenatal mothers, Observation table for check level of blood pressure.“TheWidenbanchs Prescriptive Theory” was adopted as a theoretical base for framework of the study. Analysis was done using frequency and percentage distribution and paired test.

**RESULTS:**

- **FREQUENCY AND PERCENTAGE DISTRIBUTION OF DEMOGRAPHIC VARIABLE (n=40):**  
**In experimental group**75% of antenatal mothers were between age group of 21-30 years, 80% of mothers were mixed dietary pattern, 65 % were primipara mothers, 83% were the mothers who had family history of hypertension. **In control group**65% of antenatal mothers were between age group of 21-30 years, 65% of mothers were mixed dietary pattern, 55 % were primipara mothers, 75% were the mothers who had family history of hypertension.
- **COMPARISON OF LEVEL OF BLOOD PRESSURE BEFORE AND AFTER INTERVENTION IN EXPERIMENTAL GROUP(n=40):**In experimental group it shows that there is statistical difference in Systolic and diastolic blood pressure between before and after intervention of lemon juice with honey as p value is less than 0.05 it is statistically highly significant.
- **COMPARISION OF POST TEST LEVEL OF BLOOD PRESSURE IN EXPERIMENTAL AND CONTROL GROUP(n=40):**There is not significant difference between post test mean score of systolic blood pressure but in diastolic blood pressure there was significant difference between experimental and control group.
- **ASSOCIATION BETWEEN PRE TEST LEVEL OF BLOOD PRESSURE WITH DEMOGRAPHIC VARIABLES(n=40):** There is significant association between pre test level of diastolic Blood pressure with age.

**PROCEDURE FOR DATA COLLECTION**

After obtaining the necessary permissions from the concerned authorities and informed consent from the mothers with PIH, the researcher collected the necessary data. The data was collected in three phases.

**Pre intervention phase:** - Phase I : Demographic data was collected from mothers with PIH in the experimental and control group.

**Intervention Phase:** - Phase II : In experimental group, lemon juice with honey was administered to mothers with PIH for seven days. The juice was given early in the morning with empty stomach once a day. In control group, the hospital routine care was carried out.

**Post-intervention Phase:** - Phase III: The researcher was checking the level of blood pressure every day for seven days in both experimental and control group.

**CONCLUSION:**

The lemon juice with honey ingestion was effective in reducing BP among antenatal mothers but there was significant association of age with diastolic blood pressure. PIH cannot be cured by lemon juice with honey ingestion but it can be controlled effectively by administering lemon juice with honey with medication .

**REFERENCES:**

[1] Alele Pillitere, maternal and child health nursing, 6th edition, Lippincott and Wilkins company 2010 pg-575.

[2] Annamma Jacob, A Comprehensive Textbook of Midwifery. Jaypee Brothers Medical publisher (P) LTD 2nd edition reprint 2009.

[3] D.C Dutta, Textbook of obstetrics. Jaypee Brothers Medical Publishers(p) Ltd, New Delhi 7th Edition reprint 2013 Pg no-219.

[4] Dr. ( Mrs) Nilima R. Bhore, “Planned teaching programme improves knowledge about nosocomial infections among staff nurses in regional center in Maharashtra” in *Innovational Journal of Nursing and Healthcare (IJNH)*, 2015.

[5] K Park. The Text Book of Preventive and Social Medicine. 12th edition, Banarsidas Bhanot Nagpur Road Pg no-683.

[6] Manual of Obstetrics, Elsevier a division of Reed Elsevier India (P) LTD ND edition reprint 2007 Pg no -9.

[7] Dr. ( Mrs) Nilima R. Bhore, “Disease burden of nosocomial infections and knowledge of nurses regarding the nosocomial infections: A Review” in *International Journal of Nursing Research (IJNR)* in December 2015.

[8] Dr. ( Mrs) Nilima R. Bhore, “ to assess the effect of back massage on let down reflex among mothers undergone cesarean section” in *International journal of science & research (IJSR)* in March 2016.

[9] Suresh k Sharma. Nursing Research and Statistics, Published by Elsevier, a division of Reed Elsevier India Private limited Pg no – 375 to 376.

[10] Ethiop, of health science 2019;29(1)831-840.

[11] Dr. ( Mrs) Nilima R. Bhore, “ to test & prepare the effectiveness of video assisted teaching programme on primipara mothers regarding post-natal care” in *International Journal of Science and Research (IJSR)* in July 2016.

[12] *International journal of advanced research*, www.journalIJAR01/6365, <http://dx.doi.org/10.21475/IJAR 01/6315>.

[13] *Frontiers in science* 2016,4(1):8-11. DOI.10.5923/i.s.20140401.02.

[14] Dr. ( Mrs) Nilima R. Bhore “ Breast self Examination a Boon to womanhood” in *Global Journal for Research Analysis*, Volume-8, Issue 4, April 2019.

[15] Dr. ( Mrs) Nilima R. Bhore “ A study to assess the effect of back massage on let down reflex among mothers undergone cesarean section” in *International journal of science & research (IJSR)* in March 2016.

[16] Nguyen S, Choi HK, blood pressure in ado. *J Pediatr*. 2009;154:807-8013

[17] Ramesh K, Sangeetha Gandhi and Vishwas Rao. Socio- Demographic and other Risk Factors of Pre-Eclampsia 2014 Volume 8 Page no (111).

[18] Dr. ( Mrs) Nilima R. Bhore “ A study to assess the effectiveness of selected aspects of

[19] Lamez method on pain among primigravida mothers during first stage of labour in selected hospitals of Sangli, *International Journal of Recent Scientific Research*, Vol. 7, Issue, 10, pp. 13547-13550, October, 2016.

[20] Sibai B, Dekker G, Kupferminc M. Pre-eclampsia *Lancet* 2005;365(9461); 785-991.

[21] Silva LM, Coolman M, Steegers EA, Jaddoe VW, Moll HA, Hofman A, Mackenbach-JP, Raat H. Low socioeconomic status is a risk factor for preeclampsia 2008 *Jun*, 26(6) Page no (111)

[22] <https://naturalon.com/12-of-the-best-remedies-to-reduce-high-blood-pressure-naturally-no-pills-no-sweat/view-all>.