

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 Osmanabad District

Tejashri Ananda Dalvi

Assistant Professor, Maharashtra University of Health Science, Nashik
Dr. Shivajirao Ghogare Institute of Nursing Osmanabad

Abstract: A Quantitative study was conducted "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 Osmanabad district." **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

1. Introduction

Good healthiness has long been observe 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 us¹.

Pregnancy and childbirth are natural process in women. still, the reality is that women and children undergo and die as a end result of child bearing process. Hypertension is the most worldwide medical Problem encounter in Pregnancy and remains an significant cause of maternal and fetal morbidity and mortality. In a multi centre education just about 30% of hypertensive disorder of pregnancy was due to persistent hypertension where 70% of the cases were diagnosed as gestational induced hypertension². 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.³ 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 rate⁴.

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 attribute 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 etc³ and they 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 remedies⁵.

2. Review of Literature

- 1) Tesfaye Abera Gudeta, 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.¹
- 2) 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 PIH¹⁵.
- 3) Esther Olusola Aluko, 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 effect²⁰.
- 4) 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

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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 stomach²⁴.

- 5) 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 clots²⁸.

3. 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. “The Widenbanchs Prescriptive Theory” was adopted as a theoretical base for framework of the study. Analysis was done using frequency and percentage distribution and paired test.

4. 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.
- **Comparison 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.

5. 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.

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