



CODEN [USA]: IAJPBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF  
PHARMACEUTICAL SCIENCES**

SJIF Impact Factor: 7.187

<http://doi.org/10.5281/zenodo.3955498>Available online at: <http://www.iajps.com>

Research Article

**ANALYSIS OF HYPERTENSION AND ANEMIA AMONG  
NON-WORKING PRIMIGRAVIDA GROUP WOMEN**Dr. Bazgha Naeem<sup>1</sup>, Dr. Ishrat Irshad<sup>2</sup>, Dr. Taskeen Zahra<sup>2</sup><sup>1</sup>Allama Iqbal Memorial Teaching Hospital, Sialkot<sup>2</sup>Ex-House Officer Allama Iqbal Memorial Teaching Hospital, Sialkot

Article Received: May 2020

Accepted: June 2020

Published: July 2020

**Abstract:**

**Introduction:** Pregnancy is one of the most important periods in a woman's life and is accompanied with huge physiological changes, which can be similar to a tsunami for the body. Many different factors can influence the process of pregnancy and consequently the pregnancy outcome. **Aims and objectives:** The basic aim of the study is to analyze that pregnancy induced hypertension and anemia are more common in non-working Primigravida group women. **Methodology of the study:** This was a randomized study conducted in Allama Iqbal Memorial Teaching Hospital, Sialkot during June 2019 to November 2019. We collected the data from 112 female patients who visits the OPD of a hospital. We divided the data into two groups one was those who were non-working Primigravida group women and second group was working Primigravida group. We collected all the basic characteristics of selected patients of both groups. We recorded their BP in 3 consecutive antinatal checkup, along with HB, on each visit. **Results:** The data were collected from 112 patients with the mean age of working women are  $27.4 \pm 2.4$  and non-working women are  $25.5 \pm 2.6$ . The mean gestational age is  $24.4 \pm 3.5$  and  $25 \pm 2.4$  in working and non-working women respectively. The mean Hb level were differ significantly in working and non-working women, as mean Hb level is  $11.5 \pm 2.31$  and  $11.5 \pm 2.31$  among working and non-working women respectively. BMI of working women was noted as  $25.4 \pm 2.6$  and in non-working women as  $26.5 \pm 3.4$ . **Conclusion:** It is concluded that working women are protected to develop pregnancy induced hypertension or pre-eclampsia and as compare to non-working pregnant women regarding BP and anaemia. It may be due to awareness of working women about their health and exertion. Results found very positive differences in the HB and BP among both groups.

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Please cite this article in press Bazgha Naeem et al, *Analysis Of Hypertension And Anemia Among Non-Working Primigravida Group Women* ., Indo Am. J. P. Sci, 2020; 07(07).

**INTRODUCTION:**

Pregnancy is one of the most important periods in a woman's life and is accompanied with huge physiological changes, which can be similar to a tsunami for the body. Many different factors can influence the process of pregnancy and consequently the pregnancy outcome. Maternal age, parity, and socioeconomic factors are among these important factors<sup>1</sup>. Gestational hypertension is the most common cause of hypertension in pregnant women. Gestational hypertension is a clinical diagnosis defined by the new onset of hypertension (systolic blood pressure  $\geq 140$  mmHg and/or diastolic blood pressure  $\geq 90$  mmHg) at  $\geq 20$  weeks of gestation in the absence of proteinuria or new signs of end-organ dysfunction<sup>2</sup>.

Primigravida (PG), defined as a woman who conceives for the first time, is in a high-risk group. PGs are at significantly higher risk for prolonged first and second stage of labor, increased chances of fetal distress during labor and need for intensive monitoring as compared to the multigravidas<sup>3</sup>. PGs are also at significantly increased risk for operative vaginal delivery and emergency cesarean section. The chances of primary postpartum hemorrhage in PGs are found to be more, and perinatal morbidity is also increased in the group<sup>4</sup>.

Iron deficiency anemia is the most common nutritional deficiency would wide affection approximately 1.3 billion people. Anemia is identified as a very common nutritional problem in developing countries<sup>5</sup>. Prevalence of micro nutrient malnutrition in respect of iron, iodine and vitamin A is more wide spread then protein energy malnutrition. Pregnancy is a serious burden to the women with the disease for the anemia and places them at increased risk of mortality. Moderate to severe anemia during pregnancy increase the risk of low birth weight<sup>6</sup>.

According to the WHO, anemia in pregnancy is present when the hemoglobin concentration in the peripheral blood is  $< 11$  gm%. Anemia in pregnancy is further divided into three grades, 10–10.9 gm% as mild anemia, 7–10 gm% as moderate anemia, and  $< 7$  gm% as severe anemia<sup>7</sup>. The prevalence of

anemia in pregnancy as per National Family Health Survey-3 in India is as high as 58.7%. The present study was conducted with the objective of to assess the impact of anemia on course and outcome of pregnancy in anemic (hemoglobin 8–10.9 gm%) and non-anemic PGs<sup>8</sup>.

**Aims and objectives**

The basic aim of the study is to analyze that pregnancy induced hypertension and anemia are more common in non-working primigravida group.

**METHODOLOGY OF THE STUDY:**

This was a randomized study conducted in Allama Iqbal Memorial Teaching Hospital, Sialkot during June 2019 to November 2019. We collected the data from 112 female patients who visits the OPD of a hospital. We divided the data into two groups one was those who were non-working Primigravida group women and second group was working Primigravida group. We collected all the basic characteristics of selected patients of both groups. We recorded their BP in 3 consecutive antenatal checkup, along with HB, on each visit. Non probability convenient sampling method was used on the basis of inclusion and exclusion criteria.

**Statistical analysis**

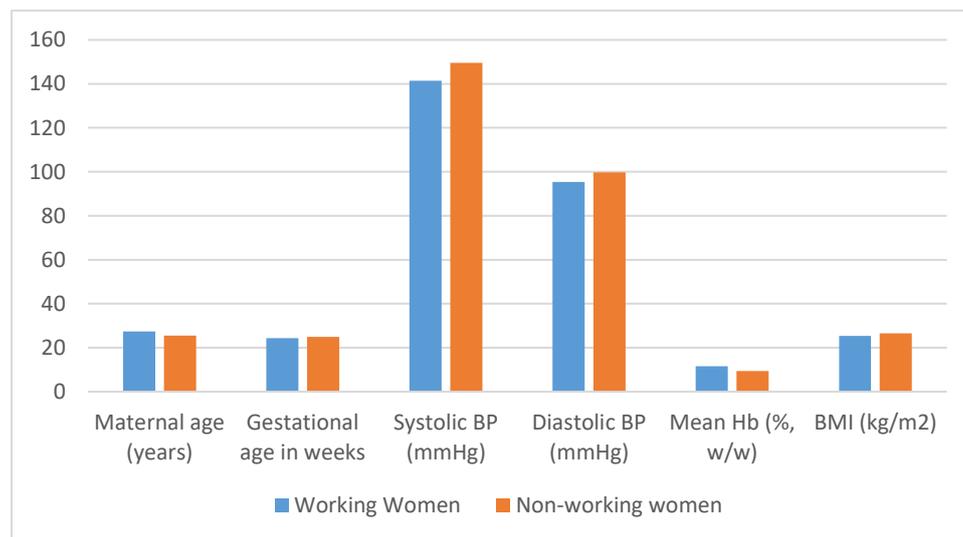
The collected data were analyzed using SPSS software (version 17). The results are presented as a mean with 95% confidence interval limits or standard deviations. The significant value for  $P < .05$  was accepted as statistically significant.

**RESULTS:**

The data were collected from 112 patients with the mean age of working women are  $27.4 \pm 2.4$  and non-working women are  $25.5 \pm 2.6$ . The mean gestational age is  $24.4 \pm 3.5$  and  $25 \pm 2.4$  in working and non-working women respectively. The mean Hb level were differ significantly in working and non-working women, as mean Hb level is  $11.5 \pm 2.31$  and  $11.5 \pm 2.31$  among working and non-working women respectively. BMI of working women was noted as  $25.4 \pm 2.6$  and in non- working women as  $26.5 \pm 3.4$ . Results shows that Hb level of working women becomes high as compared to non-working women.

**Table. 1:** Analysis of basic parameters of selected patients of both groups

Characteristics	Working Women	Non-working women	P Value
Maternal age (years)	27.4± 2.4	25.5 ± 2.6	.005
Gestational age in weeks	24.4±3.5	25 ± 2.4	.020
Systolic BP (mmHg)	141.4 ± 9.2	149.6 ± 10.3	.001
Diastolic BP (mmHg)	95.4 ± 8.5	99.7± 7.4	.001
Mean Hb (% , w/w)	11.5±2.31	9.43±2.6	.001
BMI (kg/m <sup>2</sup> )	25.4±2.6	26.5±3.4	.010

**Figure 01:** Comparison of non-working Primigravida group women with working Primigravida women on the basis of mean values**DISCUSSION:**

Pregnancy is the normal incident in the life of a women body, every pregnancy is a unique experience for women and each pregnancy the women experience will be new and adequately different from the previous<sup>8</sup>. The anatomical and physiological changes in pregnancy are associated with minor discomforts between women during pregnancy. Self-management regarding minor discomforts and practices during prenatal period is beneficial for pregnant women so practices of women about self-management are necessary for their health protection<sup>9</sup>. In our study we observed that the chances of anaemia and pregnancy induced hypertension is less in working woman as compare to house wives or non-working women, keeping in view the AGE and BMI plus other risk factors are the same. No close strong hypertensive history in the parents.

Pregnancy induced hypertension is thought to be one of the major causes of maternal death and sufferings all over the country. This study was conducted to

know prevalence of pregnancy induced hypertension in third trimester in a teaching hospital<sup>10</sup>.

**CONCLUSION:**

It is concluded that working women are protected to develop pregnancy induced hypertension or pre-eclampsia and as compare to non-working pregnant women regarding BP and anaemia. It may be due to awareness of working women about their health and exertion. Results found very positive differences in the HB and BP among both groups.

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