

A study of clinical profile and factor associated with PIH at tertiary health care centre

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Abstract

Background: Pre-eclampsia is pregnancy-induced hypertension (PIH) of unknown etiology. Pre-eclampsia can be quite serious as it can lead to various complications both for the mother and the baby. **Aims and Objectives:** To Study Clinical profile and factor associated with PIH at tertiary health care centre. **Methodology:** This was a cross-sectional study carried out in the department of OBGY in the patients who were diagnosed as Pregnancy Induced Hypertension during the year January 2015 to January 2016. After the written informed consent patients were enrolled into the study. The data was presented in the tabular form and expressed in the percentages. **Result:** The majority of the patients were from the age group of >34 were 50.00%, 29-34 were 17.19%, 24-29 were 14.06%, 20-24 were 10.94%, <19 were 7.81%. The majority of the patients were from Gravida 1 were 39.06 %, followed by Gravida 2 were 26.56. The majority of the symptoms Severe headaches in 95%, Vomiting in 90%, Excessive swelling of the feet and hands in 85%, Anuria in 80%, Hematuria in 75%, Dizziness in 60%, Tingling sounds in Ears in 55%. Fever in 40%, Blurred vision in 35%. The most common associated factors were Family history in 90%, Obesity (BMI >30) in 82%, Diabetes-75%, Previous history of PIH in 65%, Age > 34 in 63%, Primigravida in 54%, K/C/O Hypertension in 47%. **Conclusion:** The majority of the symptoms Severe headaches, Vomiting, Excessive swelling of the feet and hands etc. and the most common associated factors were family history, Previous history of PIH, Age > 34, Primigravida, K/C/O Hypertension.

Key Words: Pregnancy Induced Hypertension (PIH), Pre-eclampsia, Body Mass Index (BMI), Risk factors of PIH.

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Received Date: 20/08/2017 Revised Date: 24/09/2017 Accepted Date: 13/10/2017

DOI: <https://doi.org/10.26611/1012414>

Access this article online

Quick Response Code:	Website: www.medpulse.in
	Accessed Date: 16 October 2017

INTRODUCTION

Pre-eclampsia is pregnancy-induced hypertension (PIH) of unknown etiology. Pre-eclampsia can be quite serious as it can lead to various complications both for the mother and the baby. In fact, pre-eclampsia and eclampsia, severe forms of PIH, are the leading cause of infant and maternal death in the United States. Hypertension complicates an estimated 6-8% of all pregnancies. There are genuine differences in the incidence of hypertensive disorders of

pregnancy in the populations of Southeast Asia and the fact that these are not caused by underlying differences in the baseline blood pressures in these populations.¹ Though the cause for pre-eclampsia is unknown, there does appear to be certain risk factors associated with the condition. The factors that have been postulated to influence the risk of pre-eclampsia among the mothers include diabetes, renal disease, obesity, multiple pregnancy, primiparity, age above 30 years, personal or family history of pre-eclampsia, and chronic hypertension. In developing countries, evidence on the association between these factors and pre-eclampsia is scarce. There are many studies in developed and some developing countries to assess the association between these factors and pre-eclampsia.²⁻⁵

MATERIAL AND METHODS

This was a cross-sectional study carried out in the department of OBGY in the patients who were diagnosed as Pregnancy Induced Hypertension during the year

January 2015 to January 2016. After the written informed consent patients were enrolled into the study. All details of the patients like Age, Gravida, Clinical features, associated factors like Family history, Obesity (BMI >30), Diabetes, Previous history of PIH, Known Case Of Hypertension etc. was noted. The data was presented in the tabular form and expressed in the percentages.

RESULTS

Table 1: Distribution of the patients as per the Age

Age group	No.	Percentage (%)
<19	5	7.81
20-24	7	10.94
24-29	9	14.06
29-34	11	17.19
>34	32	50.00
Total	64	100.00

The majority of the patients were from the age group of >34 were 50.00%, 29-34 were 17.19%, 24-29 were 14.06%, 20-24 were 10.94%, <19 were 7.81%.

Table 2: Distribution of the patients as per the Gravida

Gravida	No.	Percentage (%)
1	25	39.06
2	17	26.56
3	9	14.06
4	7	10.94
>4	6	9.38
Total	64	100.00

The majority of the patients were from Gravida 1 were 39.06%, followed by Gravida 2 were 26.56.

Table 3: Distribution of the patients as per the clinical features

Clinical features	No.	Percentage (%)
Severe headaches	60.8	95%
Vomiting	57.6	90%
Excessive swelling of the feet and hands	54.4	85%
Anuria	51.2	80%
Hematuria	48	75%
Dizziness	38.4	60%
Tingling sounds in Ears	35.2	55%
Fever	25.6	40%
Blurred vision	22.4	35%

Severe headaches in 95%, Vomiting in 90%, Excessive swelling of the feet and hands in 85%, Anuria in 80%, Hematuria in 75%, Dizziness in 60%, Tingling sounds in Ears in 55% Fever in 40%, Blurred vision in 35%.

Table 4: Distribution of the patients as per the associated factors

Associated factors	No.	Percentage (%)
Family history	58	90%
Obesity (BMI >30)	52	82%
Diabetes	48	75%
Previous history of PIH	42	65%
Age > 34	40	63%
Primigravida	32	54%
K/C/O Hypertension	30	47%

The most common associated factors were Family history in 90%, Obesity (BMI >30) in 82%, Diabetes 75%, Previous history of PIH in 65%, Age > 34 in 63%, Primigravida in 54%, K/C/O Hypertension in 47%.

DISCUSSION

Pregnancy-induced hypertension (PIH) is defined as the elevation of the blood pressure to $\geq 140/90$ mm Hg with or without proteinuria, which emerges after 20 weeks of gestation and normally resolves by 12 weeks postpartum^{6,7}. It increases the likelihood of progression into preeclampsia or adverse pregnancy outcome such as premature delivery⁸. Preeclampsia and eclampsia happen to be the commonest complication of pregnancy in Sub-Saharan Africa (SSA) with over 50% pregnant women being affected⁹. According to the World Health Organization (WHO), of all the hypertensive disorders of pregnancy, preeclampsia was also found to have an adverse impact on maternal and neonatal health with no definite treatment except for the termination of pregnancy/ expulsion of the fetus¹⁰. Preeclampsia affects 2-8% of all pregnancies worldwide causing about one-third of maternal deaths with over 6 million perinatal deaths and 8 million preterm births¹⁰⁻¹³. Despite the recognition of preeclampsia in ancient times, it was not found to be significant until the late 1800s when an association between hypertension, edema, proteinuria, and eclampsia was established¹⁴. In our study we have found that The majority of the patients were from the age group of >34 were 50.00%, 29-34 were 17.19%, 24-29 were 14.06%, 20-24 were 10.94%, <19 were 7.81%. The majority of the patients were from Gravida 1 were 39.06%, followed by Gravida 2 were 26.56. Severe headaches in 95%, Vomiting in 90%, Excessive swelling of the feet and hands in 85%, Anuria in 80%, Hematuria in 75%, Dizziness in 60%, Tingling sounds in Ears in 55% Fever in 40%, Blurred vision in 35%. The most common associated factors were Family history in 90%, Obesity (BMI >30) in 82%, Diabetes-75%, Previous history of PIH in 65%, Age > 34 in 63%, Primigravida in 54%, K/C/O Hypertension in 47%. This was similar to Kumar S Ganesh¹⁵ *et al* they found Significant risk factors identified in univariate analysis included pre-pregnancy body mass index (BMI > 25) (OR = 11.27), history of chronic hypertension (OR = 8.65), history of diabetes (OR = 11.0), history of renal disease (OR = 7.98), family history of hypertension (OR = 5.4), history of preeclampsia in earlier pregnancy (OR = 9.63), and multiple pregnancy (OR = 4.85). Multiple logistic regression analysis revealed that the pre-pregnancy BMI of >25 (OR = 7.56), history of chronic hypertension (OR = 6.69), history of diabetes (OR = 8.66), family history of hypertension (OR = 5.48), are the significant risk factors of pre-eclampsia.

CONCLUSION

The majority of the symptoms Severe headaches, Vomiting, Excessive swelling of the feet and hands etc. and the most common associated factors were family history, Previous history of PIH, Age >34, Primigravida, K/C/O Hypertension.

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Source of Support: None Declared
Conflict of Interest: None Declared