

ORIGINAL ARTICLE

Evaluation of cases of Pregnancy induced hypertension- A clinical study

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ABSTRACT:

Background: This study was conducted to determine cases of pregnancy induced hypertension. **Materials & Methods:** The present study was conducted on 815 pregnant women. A through clinical examination was done. In all pregnant women, blood pressure was measured with mercury sphygmomanometer. **Results:** Out of 815 pregnant women, 82 (10%) had hypertension. Pre- eclampsia was seen in 37, gestational hypertension in 19, eclampsia in 16 and chronic hypertension in 10 patients. The difference was significant ($P < 0.05$). Common symptoms were swelling on face/legs (35), headache (32), convulsions (15), giddiness (10), vomiting (12) and breathlessness (5). The difference was significant ($P < 0.05$). **Conclusion:** PIH is commonly seen in pregnancy. A through clinical examination time to time may be useful in preventing complications.

Key words: Eclampsia, Hypertention, Sphygmomanometer.

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INTRODUCTION

Pregnancy-induced hypertension (PIH) leads to 20% of maternal deaths. It involves systemic vasospasm that can lead to poor perfusion and eventually tissue ischemia, affecting placental blood flow and the maternal cardiovascular, renal, neurologic, hepatic and hematologic systems. Hypertensive disorders of pregnancy rank high among the causes of maternal mortality and morbidity.² In China it was reported second most common cause of maternal mortality.

It is divided into four types: 1. gestational hypertension, where after the 20th week of gestation, resting BP is 140/90 mm Hg or higher; 2. chronic hypertension, which exists before pregnancy or begins in the first 20 weeks of gestation; 3. preeclampsia that is raised BP and edema or proteinuria/ eclampsia which includes preeclampsia and seizures; and 4. preeclampsia superimposed on chronic hypertension. The incidence of preeclampsia is 10% in primigravidae and 5% in multigravidae.⁴

India is one of the country where still the maternal mortality rate is high, which is 174 per 1,00,000 live

birth. Although PIH more commonly occurs during first pregnancies, it can also occur in subsequent pregnancies. There are various risk factors for PHI reported DC Dutta's textbook of obstetrics which are elderly primipara, family history of hypertension, obesity, vascular disorders and placental abnormalities. This study was conducted to determine cases of pregnancy induced hypertension.

MATERIALS & METHODS

The present study was conducted in the department of Obstetrics and Gynaecology. It comprised of 815 pregnant women visited the department. All were informed regarding the study and written consent was obtained. Ethical approval was taken prior to the study. General information such as name, age etc. was recorded. A through clinical examination was done. In all pregnant women, blood pressure was measured with mercury sphygmomanometer. Results were tabulated and then subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I: Cases of pregnancy induced hypertension

Total	PIH	Percentage
815	82	10%

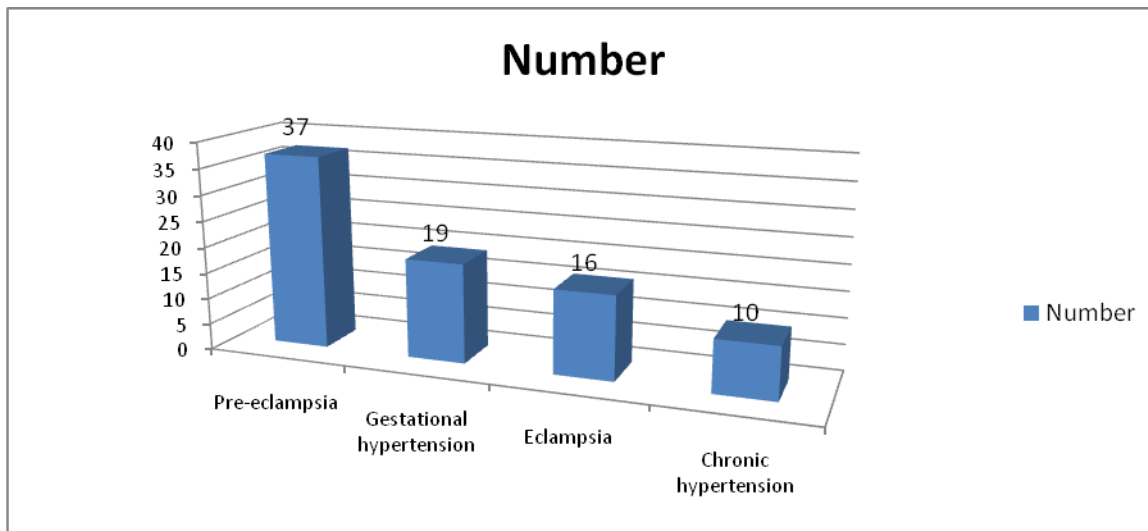
Table I shows that out of 815 pregnant women, 82 (10%) had hypertension.

Table II: Distribution of cases

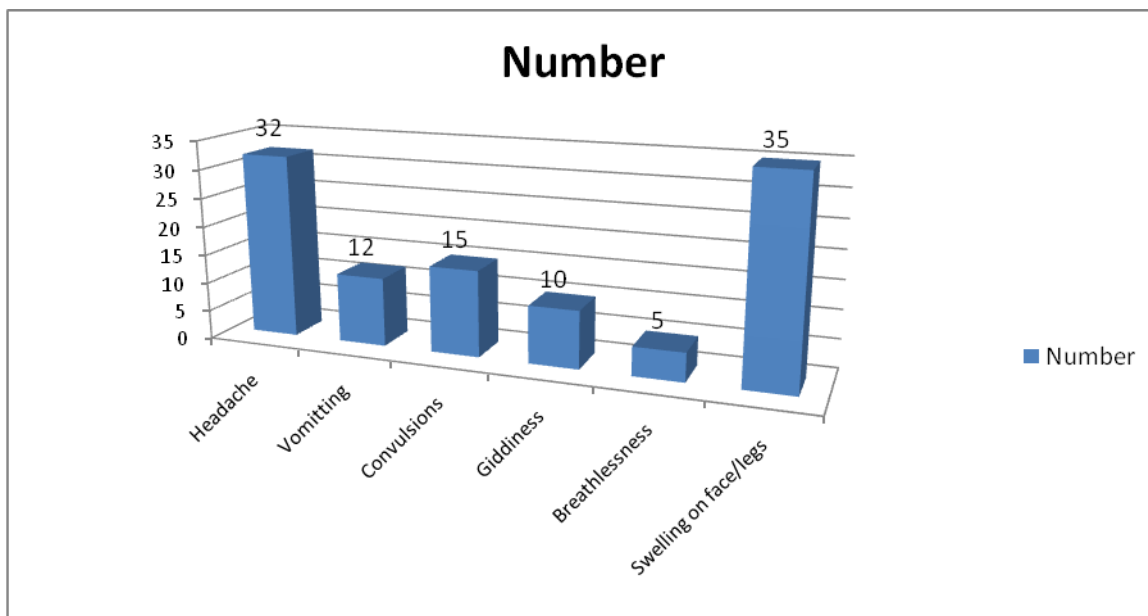
Type	Number	P value
Pre- eclampsia	37	0.05
Gestational	19	
Eclampsia	16	
Chronic hypertension	10	

Table II, Graph I shows that pre- eclampsia was seen in 37, gestational hypertension in 19, eclampsia in 16 and chronic hypertension in 10 patients. The difference was significant (P< 0.05).

Graph I Distribution of cases



Graph II Common symptoms in patients



Graph II shows that common symptoms were swelling on face/legs (35), headache (32), convulsions (15), giddiness (10), vomiting (12) and breathlessness (5). The difference was significant (P< 0.05).

DISCUSSION

Hypertension can lead directly to cardiac failure, brain hemorrhage, or pulmonary edema.⁵ Treating the hypertension does not alter the progression of disease. However it has been shown that early treatment decreases not only the frequency of hypertensive crisis, but also the rate of neonatal complications. Antihypertensive medications are mainly used to prevent or treat severe hypertension, to prolong pregnancy for as long as safely possible thereby maximizing the gestational age of the infant, and to minimize fetal exposure to medications that may have adverse effects. During pregnancy, the challenge is in deciding when to use antihypertensive medications, and what level of blood pressure to target.⁴ The antihypertensive drugs that may be used in pregnancy are methyldopa, beta blockers, calcium channel blockers and vasodilators. This study was conducted to determine cases of pregnancy induced hypertension.

In this study, out of 815 pregnant women, 82 (10%) had hypertension. Bangal et al⁵ in their study, there were 50 women with PIH and 50 women without PIH. The women with PIH and without PIH, both groups were matched for their background information. It was found that there was no association with primipara and multipara with PIH. Menstrual history had also no association with present PIH condition. Family history of hypertension and family history of diabetes mellitus also had not association with present PIH. Past history of PIH had strong association with current PIH for women who are multigravida. Also there was interesting observation that vegetarian had higher chance of getting PIH than mixed diet pattern.⁶

We observed that pre-eclampsia was seen in 37, gestational hypertension in 19, eclampsia in 16 and chronic hypertension in 10 patients. However study by Uday Mathur et al⁷ recorded pre-eclampsia in 49%, eclampsia in 11% and chronic hypertension in 27% and gestational hypertension in 13% of cases.

We found that common symptoms were swelling on face/legs (35), headache (32), convulsions (15), giddiness (10), vomiting (12) and breathlessness (5). Antihypertensives are agents that lower blood pressure. The aim of antihypertensive therapy in the management of pregnancy induced hypertension is to prevent complications due to hypertension while prolonging the course of pregnancy. Monotherapy and combination therapy were used in our hospital for treating hypertension during pregnancies. The most commonly prescribed antihypertensive agent was adrenergic receptor alpha-2 agonists: Methyldopa, Nefidipine, Labetol. The use of combination antihypertensive pharmacotherapy

suggests increased Severity of illness where optimal BP control cannot be achieved on monotherapy.⁸

There are several risk factors like family history of hypertension and family history of diabetes mellitus that play important role. Lucie et al⁹ reported the strong association with family history of DM and PIH in their studies. Family history of DM was also found as strong associated risk factor by Ravi.¹⁰

CONCLUSION

PIH is commonly seen in pregnancy. A through clinical examination time to time may be useful in preventing complications.

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