

Frequency of Hypertension in Pregnant Women Visiting District Head Quarter Hospital Rajanpur, Pakistan

Sidra Bilal¹, Sadia Batool², Hafiza Mehreen Gul³ and Muhammad Ishtiaq⁴

ABSTRACT

Objective: To determine the prevalence of hypertension in pregnant ladies throughout the pregnancy period.

Study Design: Cross sectional study

Place and Duration of Study: This study was conducted at the Medical Clinic DHQ Rajanpur from 1st June to 15th July 2016.

Materials and Methods: 100 pregnant women with gestational age from 20 weeks ahead were contained. Gestational age was determined by ultrasound and from the concluding menstrual period. Pregnancy-induced hypertension was determined by measuring the blood pressure and based on clinical examination. The data was registered in a pre-designed table, entered and analyzed by using SPSS 22.

Results: Our study found that 57% of pregnant women who visited the hospital clinic were found with hypertension. The average age of the respondents was ± 31.54 and Standard Deviation of 3.18. Most of the respondents about (64.5%) were form the middle-aged group (26-35 years old), the highest age of childbearing.

Conclusion: Pregnancy is associated with a complex threat of pregnancy-induced hypertension. The mothers experience most of the complications during pregnancy and childbirth. Early booking, good care throughout pregnancy and childbirth and the rational use of contraceptive services can prevent complications from occurring.

Key Words: Pregnancy; Complications; Hypertension.

Citation of article: Bilal S, Batool S, Gul HM, Ishtiaq M. Frequency of Hypertension in Pregnant Women Visiting District Head Quarter Hospital Rajanpur, Pakistan. Med Forum 2017;28(2):35-37.

INTRODUCTION

Pregnancy induced hypertension are the term used to describe the different stages of the same syndrome¹. Preeclampsia is pregnancy-induced hypertension alongside involvement of renal system and proteinuria². Preeclampsia progresses to Eclampsia when seizures appear along with above symptoms³. Arterial hypertension is a problem in about 8 to 10% of pregnant women and is one of the cause for the increased risk of prenatal complications, which include maternal or child mortality³. Among different varieties of pregnancy - induced hypertension, pre - eclampsia and eclampsia are responsible for most of the increased blood pressure in pregnant women⁴.

Pregnancy-induced hypertension remains a major cause of maternal prenatal disease and death⁵.

US Congressional obstetricians and gynecologists define it as a continuous blood pressure of 140 mmHg or a higher and diastolic 90 mmHg or more⁶. Signs and Symptoms of PIH is usually after 20 weeks of gestation. Hypertension in pregnancy is associated with CVS disorders later in life^{7,8}. It has been suggested that blood pressure monitoring in women who have experienced high blood pressure early in pregnancy after puerperium helps in detection and prevention of various CVS disorders. It may hang on the relative hyper and rogenic status and additional modifications in vascular endothelial function, carbohydrate and lipid metabolism, which have been shown to correlate with previous history of hypertension or otherwise to healthy women⁹. Per the National Heart, Lung and Blood Institute of Pregnancy; many possible reasons of high blood pressure include overweight or failing to remain active, smoking, drinking, high maternal age during the first pregnancy that is more than 35 years, and manifold fetuses¹⁰.

The pathogenesis is determined by the interface between the surface endothelial cells in the uterine placental circulation, motherly platelets and hostile action by these tissues producing eicosanoids¹¹. Our country is comparable to about 75% of other evolving countries where local co-ordination is lacking in basic health services and the concept of prenatal care is obscure¹². Consensus on the "causes and frequency of pregnancy-induced hypertension" is not fully agreed and immune factors to see trigger placental disease

¹. Department of Obstet. & Gynae, DHQ Hospital, Rajanpur.

². Department of Obstet. & Gynae, THQ Hospital, Jatoi.

³. Department of Obstet. & Gynae, Basic Health Unit Lakhani, Taunsa Sharif.

⁴. BVH, Bahawalpur.

Correspondence: Dr. Hafiza Mehreen Gul, Women Medical Officer, Basic Health Unit Lakhani, Taunsa Sharif
Contact No: 0342-6417280
Email: mehreengul408@gmail.com

Received: October 30, 2016; Accepted: December 24, 2016

genetic arrangements leading to maternal vulnerability¹³. In Bangladesh, the study led to various complications like eclampsia, dystocia, postpartum hemorrhage and other labor complications associated to PIH¹⁴.

MATERIALS AND METHODS

This cross-sectional study of descriptive crossover was performed at the Medical Clinic of DHQ Rajanpur from 1st June to 15th July 2016. 100 pregnant women with gestational age from 20 weeks ahead were contained. Sampling was performed using a non-probabilistic sampling technique.

Inclusion criteria: 100 pregnant women with gestational age from 20 weeks ahead were contained. Gestational age was determined by ultrasound and from the concluding menstrual period and age of 15 to 40 years.

Exclusion criteria: History of DM, RA factor.

Data Collection Process: Data was collected from all study variables by using open and closed ended questions of self-administered questionnaires.

Data Analysis: Accessed and analyzed the complete data on SPSS version 22.

RESULTS

Our study found that 57% of pregnant women who visited the hospital clinic were found with hypertension. The average age of the respondents was \pm 31.54 and Standard Deviation of 3.18. Most of the respondents about (64.5%) were from the middle-aged group (26-35 years old), the highest age of childbearing.

There were significant differences in the time of the different gestational ages and in the diagnosis of hypertension. High blood pressure was diagnosed more in the 2nd and 3rd trimester.

Many Conflicts found in believes that antenatal checkups help in early diagnosis and management of prenatal hypertension. In the presence of two groups of pregnant women one having antenatal visits and other not, no significant difference was found in between them. An important question rises here whether prenatal checkups are miscarried to determine high blood pressure or they do not consider it significant to determine and treat the hypertension.

Table No.1: Respondents with age groups

| Age Groups | Frequency | %age |
|-------------|-----------|------|
| 15-25 years | 20 | 20 |
| 26-35 years | 73 | 73 |
| > 35 years | 7 | 7 |
| Total | 100 | 100 |

DISCUSSION

In this study the prevalence of PIH was seen in 57. Our result compared with studies, such as per an assessment

made in Bangladesh, more than 50% of mothers suffer from pregnancy-induced hypertension, eclampsia, dystocia, postpartum hemorrhage and delayed delivery leading to death¹⁴ where, PIH is found to be 20% complicating the pregnancy¹⁵, and in an intercontinental and was found 18% in the native study¹⁶. In some other studies the population of teenage mothers with PIH found with frequency of 30% and 32%^{17,18}.

Same magnitude of disease where only group of 70 mothers were involved surprisingly showed the frequency of hypertensive disorders even up to 37% which is lower from our figures¹⁹.

CONCLUSION

The findings of this study elaborate that pregnant women with hypertension are recognized at the end of their gestation with a significant limitation of their proper management. More pregnant women who are opting pregnancies after long duration of their marriage are more sufferers of hypertension. Late diagnosis of Efforts must focus on the strict enforcement of the rules prohibiting marriage in our country. Access to the recognized health services should be recognized.

Recommendation: The collective awareness of health care providers and women with reproductive age at high blood pressure should be tested. Posters, pamphlets and leaflets should be put out and distributed on the awareness of early diagnosis and management of hypertension.

Conflict of Interest: The study has no conflict of interest to declare by any author.

REFERENCES

1. Redman CWG..Hypertension in pregnancy oxford textbook of medicine. Volume 1, section 1-12, 2nd ed. 1982.p4-11.9
2. Won HS, Kim DY, Yang MS, Lee SJ. Hyun-hoshin, Prk JB. Pregnancy induced hypertension but not gestational diabetes mellitus for venous thrombus embolism in pregnancy. Korean Cire J 2011;41:23-7.
3. Easterling TR, Carr DB, Bratang D, Diederiches C, Schimucker B. Treatment of hypertension in pregnancy: Effect of atenolol on maternal disease, preterm delivery and fetal growth. Obstet Gyneacol 2001;98:427-33.
4. Sibai BM, Barton JR. Expectant management of severe pre-eclampsia remote from term: patient selection, treatment and delivery indications. AM J obstet and Gyneacol 2007;196(6);514,e1-9.
5. Mugo M. Govinderjan G, kurukalasuriya LR, Sowers JR, Mcfarlane ST. Hypertension in pregnancy. Currhypertens Rep 2005;7:348-54.
6. Health Canada special report on maternal mortality and severe morbidity in Canada-enhanced

- surveillance: path to prevention. Minister of public works and Gout services Canada, 2004.
7. Centre of Maternal and child Enquiries (CMACE) Saving Mother's lives reviewing maternal deaths to make motherhood safer:2006-08. The eighth report on confidential enquiries into maternal deaths in UK. BJOG 2011;118(suppl.1):1-203.
 8. Sibai BM. Hypertension. In Gabbe SG, Niebly JR, Simpson JL editors. Obstetrics normal and problems pregnancy 5th ed. Philadelphia Elsevier: Churchill living stones;2007.
 9. MugoM, Govinderjan G, Kurukalasureiya LR, Sowers JR, Mcfarlane ST. Hypertension in pregnancy. Currhypertens Rep 2005;7:348-54.
 10. Pregnancy Hypertension: an International journal of women's CVS health. 2014;4(2):105-145.
 11. Incidence of Women Having Pregnancy Induced hypertension. In Karachi. Pak J Pharmacol 2003; 20(1):5-8.
 12. Visser VS, Henses W, Afronx CM. Koopmans M. Pregnancy Hypertension. An Int J women's CVS Health 2013;3(4):242-247.
 13. Naqvi MM, Naseem A. Maternal and fetal risks associated with teenage and adult pregnancy. JRM 2010;14 (1):40-2.
 14. Banerjee B. Teenage pregnancy: a socially inflicted health hazard. Ind J Comm Med 2009;34(3): 227-231.
 15. Chahande MS, Jadho AR, Wadhva SK, Udhade S. Study of some epidemiological factors in teenage pregnancy hospital based case comparison study. Ind J Comm Med 2002;27:106-9.
 16. Shah N, et al. Comparison of obstetric outcome among teenage and non-teenage mothers from three tertiary care hospitals of Sindh, Pakistan. J Pak Med Assoc 2011;61 (10): 963-7.
 17. Saxena P, Salhan S, Chattopadhyay B, Kohli M, Nandan D, Adhish SV. Obstetric and perinatal outcome of teenage and older primigravidas- a retrospective analysis. Health and Population: Perspectives and Issues 2010;33(1):16-22.
 18. Rudra S, Bal H, Singh S. A retrospective study of teenage pregnancy in a tertiary care hospital. Int J Reprod Contracept Obstet Gynecol 2013;2(3): 383-87
 19. Grover N, Sandhu J, K. Teenage Pregnancy: Too Much Too Soon. JSAPOG 2009; 1(3):41-3.

Electronic Copy