

A study of hypertension among pregnant women residing in rural community of Satna district

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Abstract

Background: Worldwide influence of Hypertensive disorders of pregnancy is seen in 5 to 22% of pregnancies. Despite extensive global research, etiology, management, prevention remains elusive. When prevention is not possible, early diagnosis can save mothers and babies despite disorders, but rural women especially in developing countries lack awareness, health services, resources too, so suffer much more.

Objectives: A study was conducted to assess the hypertension among pregnant women residing in rural community of Satna district.

Material Methods: Retrospective study was carried out regarding hypertension during pregnancy among women residing in rural area of Satna district. Information about hypertension among rural pregnant women was collected from women's antenatal records available in Private hospital of Satna district. Blood pressure data was collected by the health assistant from records available. Data was interpreted accordingly.

Results: 100 women with hypertension during pregnancy referred to private hospital from rural setting were included in the study. 72 had moderate gestational hypertension (GH)/preeclampsia (PE), 28 severe/eclampsia. Of 8 women aged below 20 years, 62 women were 30-34 yrs. 46 were illiterate (some had gone to school for one or few years). No Significant difference between primi and multigravida regarding hypertension was seen.

Conclusion: Hypertension during pregnancy was common in rural area. They lead to a lot of maternal, perinatal loss. So intervention is required at community level to detect hidden cases and treating them timely for good maternal and fetal outcome during pregnancy.

Introduction

Despite extensive global research, the etiology, prevention and management of hypertension during pregnancy remain elusive. Cunningham et al. ¹ had evidenced complicated 5-10% of pregnancies due to hypertension and it was leading cause of maternal, fetal and neonatal morbidity and mortality globally. Others have reported that worldwide 5 to 22% of pregnancies were affected by hypertension. Some women develop severe complications and their babies also get affected, more in developing countries ². Mothers with hypertension at the time of pregnancy can develop organ failure either single or multiple. Diagnosis is delayed sometimes because of increasing fatality due to organ failure in cases of hypertension in pregnancy. ³ In cases of lack of prevention, early diagnosis with proper treatment is tried in patients with hypertension in pregnancy so that outcome is improved in mothers and babies. In most of the studies information of rural women is scarce, so this study was conducted to assess status of rural women with hypertension during pregnancy.

Objectives

To study hypertension among pregnant women residing in rural community of Satna district

Material And Methods

Retrospective study was carried out regarding hypertension during pregnancy among women residing in rural area of Satna district. Information about hypertension among rural pregnant women was collected from women's antenatal records available in Private hospital of Satna district. Blood pressure data was collected by the health assistant from records available. Data was interpreted accordingly.

Study setting

Hospital-based retrospective study was conducted in pregnant women referred from rural communities to private hospital located in Satna district.

Study Type

Retrospective study

Study period

1 year

Study sample

Study sample was 100 cases from records available in private hospital in study duration fulfilling the inclusion criteria

Inclusion criteria

Pregnant women with hypertension and age group of 15-45 years who delivered

Pregnant women with residence in rural area

Results

Over 1 years, many women delivered in private hospital were referred from rural area, 100 women had hypertension during pregnancy, 72 (72%) had moderate gestational hypertension/Preeclampsia and 28 (28%) had severe hypertension/eclampsia. Of 8 women aged below 20 years, 62 women were 30-34 yrs. 46 were illiterate (some had gone to school for one or few years). No Significant difference between primi and multigravida regarding hypertension was seen. In table 1 moderate hypertension was present in 2.8% cases of age below 20 years and 61.1% cases of age group 30 to 34 years. Severe hypertension was seen in 14.3% cases age of more than 34 years. Significant association was found (P value <0.05)

According to education as shown in table 2, illiterate cases had severe hypertension (53.6%). And 43.1% illiterates were of moderate hypertension. Significant association was found (P value <0.05). According to parity as shown in table 3, 26 cases of P1 parity had moderate hypertension while 17 had severe hypertension. No significant association was found

TABLES

Table 1- Age wise distribution of hypertension among pregnant women residing in rural community

Age	Moderate (N)	Moderate (%)	Severe (N)	Severe (%)
Below 20 years	2	2.80%	6	21.40%
30 to 34 years	44	61.10%	18	64.30%
More than 34 years	26	36.10%	4	14.30%
Age	Chi-square	12	P value	0.002

Table 2- Education wise distribution of hypertension among pregnant women residing in rural community

Education	Moderate (N)	Moderate (%)	Severe (N)	Severe (%)
High	5	6.90%	2	7.10%
Middle	17	23.60%	11	39.30%
Primary	19	26.40%	0	0.00%
Illiterate	31	43.10%	15	53.60%
Education	Chi-square	9.644	P value	0.022

Table 3- Parity wise distribution of hypertension among pregnant women residing in rural community

Parity	Moderate (N)	Moderate (%)	Severe (N)	Severe (%)
P1	26	36.10%	17	60.70%
P2/P3	31	43.10%	8	28.60%
P4	15	20.80%	3	10.70%
Parity	Chi-square	5.069	P value	0.079

Discussion

Maternal, perinatal morbidity and mortality associated with hypertension during pregnancy are most commonly seen in rural areas. It is most difficult to prevent and continue to be a research agenda due to presence of gaps in knowledge. Mehta ⁴, from India reported that nearly one in 14 pregnant women in rural areas had hypertension in pregnancy. In our study 28% cases had severe hypertension in pregnancy. Chauhan ⁵, from Chhattisgarh, India reported that among rural women hypertension in pregnancy were higher and maximum cases were of 20-25 years and primigravida. In our study maximum cases were from age group 30 to 34 years who had hypertension. Oliveira

⁶, reported that hypertension among the indigenous village population was similar to the prevalence in Brazilians, but may have a more negative effect in disadvantaged populations. Identifying high-risk women early and modifying their risk was desirable which seems a dream for rural women who get even basic care with difficulty. Early diagnosis and treatment through regular and quality antenatal care are key factors for the prevention of severe hypertension in pregnancy and their complications. However, for rural women quality antenatal care is also difficult.

Lean et al. ⁷, also reported that hypertension during pregnancy and fetal growth restriction increased a mother's risk of cardiovascular disease (CVD) in later life. Giorgione et al. ⁸, also reported that women with a history of hypertension during pregnancy were at increased long-term risk of cardiovascular disease. The rural tribal woman who struggle for survival for themselves and their babies, neither have a system of having records for their future nor are aware. Despite the seriousness of the maternal and fetal consequences of hypertension during pregnancy, developing effective screening modalities, reliable diagnostic tests of possible, effective therapy or amelioration of the postpartum maternal cardiovascular legacy are still challenges. In the present study, hypertension during pregnancy contributed too many deliveries at hospitalization in urban area after referral from rural settings, representing an average annual percent change of 1.9% over the study period.

Conclusions

From present study it can be concluded that, at present hypertensive disorders of pregnancy can't be completely prevented, at least early diagnosis and appropriate treatment of hypertension during pregnancy must be tried which can improve mothers' and babies' healthy survival.

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