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Case Report

A case report on dealing with complications of hypertension during child birth

Arti Kaparwan*, Pooja Godiyal

Department Of Nursing, State College of Nursing, Dehradun, Uttarakhand, India

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***Correspondence:**
Dr. Arti Kaparwan,
E-mail: artigopu2012@gmail.com

ABSTRACT

Hypertensive disorder in pregnancy is a major source of morbidity and mortality worldwide. This is a disease unique to pregnancy typically characterized by blood pressure ≥140/90 mm of Hg after 20 weeks of pregnancy and associated with proteinuria 300 mg/24 hours or 1+ dipstick. If left untreated the disorder often leads to serious maternal and perinatal complications. Here there is a case report of women with undiagnosed hypertension during pregnancy which complicates life of both mother and fetus by complicating labour and birth with precipitate labour and postpartum haemorrhage. This is a preventable complication by educating women about importance of routine antenatal visits.

Keywords: Hypertension in pregnancy, Precipitate labour, Foetal distress, Postpartum haemorrhage

INTRODUCTION

Hypertensive disorders are one of common complication of pregnancy that put women and their fetuses at disproportionate risk for further complications. Hypertensive disorders of pregnancy are one of the major causes of maternal mortality and morbidity leading to 10-15% of maternal deaths especially in developing countries and complicates around 3-5% of pregnancies.[1,2]

Classification of hypertension in pregnancy

The national high blood pressure education programme (NHBPEP) working group on high blood pressure in pregnancy defined hypertensive disorders in pregnancy as blood pressure more than 140/90 mm of Hg taken at least 4 hours apart on two separate occasions during the pregnancy.[3]

Gestational hypertension

Hypertension developing after 20th week of pregnancy without proteinuria /edema.

Preeclampsia

Hypertension developing after 20th week of gestation with proteinuria and/or edema.

Chronic hypertension

Hypertension before 20th week of pregnancy in the absence of neoplastic or trophoblastic disease.

Pre-eclampsia superimposed on chronic hypertension

Preeclampsia developing in a woman with pre existing hypertension.

CASE REPORT

Mrs. X, a 22 years old multigravida with 36 weeks+2 days ($G_2T_1P_1L_1A_0$.) gestation came to a tertiary care hospital at 1:20 PM with complain of Labour pains and rupture of membranes from 12:45 PM. She also complained of headache which was not localized to occipital region. She had no history of hypertension in her family and even her previous pregnancy was uneventful. In this pregnancy she

attended only 3 antenatal visits and her last visit was on 26th week. From nearby health facility she only took iron and calcium during her pregnancy.

On examination

Pallor was present, urine albumin was 3+, edema over ankles was present. Her vital signs were BP-180/110 mm of Hg, pulse was 84/min and respiration was 16/min, FHR was 146/min.

Tab. nifedipine 10 mg sublingually given to her and BP was rechecked after 10 min, it was160/110 mm of Hg.

On palpating abdomen, presentation was cephalic which was well engaged. FHR was 146/min and there were 3 contractions of 35-40 seconds. On doing PV examination cervix was soft, dilation was 5-6 cm, effacement was 50%, and station was -2, membranes were ruptured and liquor was clear.

BP was again assessed after examination at 1:40 PM and was 160/100 mm of Hg, inj. labetalol 20 mg IV given, inj. magnesium sulphate 4 gm IV in 10 minutes and 5 gm I/M given on each buttock. Mother was put on continuous monitoring of BP, pulse via cardiac monitor. At 2:10 PM BP was 150/100 mm of Hg inj. labetalol 40 mg IV given. FHR was 120/min. At 2:45 pm FHR was 100 /min. Mother was advised for left lateral position to prevent fetal distress and oxygen inhalation was started at the rate of 4 lit/min. Contractions were 4-5/10 min of 40-45 sec. BP was 140/90 mm of Hg. Mother was prepared for LSCS as advised by doctor; high risk consent was taken from husband. Mother and family were anxious and worried about condition of baby, reassurance was provided to her and family by midwife and her mother is allowed to be with her to make her feel comfortable.

PV was done before sending to OT and cervical dilation was 9-10 cm, effacement was 100% and station was +1, so OT was cancelled and tried for normal delivery. Condition of mother and fetus was closely monitored. Emergency preparations were also done to deal with complications. She reached in full dilation in 1 hr 25 min.

At 2:58 PM, mother delivered an alive female of 2200 gm, who cried after stimulation on back. Apgar was 8 at 1 min. Duration of second stage of labour was 13 min. Immediately 10 unit of syntocin was given I/M as a part of active management of third stage of labour (AMTSL) and placenta was delivered with controlled cord traction method at 3:05 PM. Total duration of labour was 1 hr 45 min.

Mother started bleeding profusely after delivery of placenta. Immediately IV fluid RL 1 lit with 20 unit of syntocin started at free flow rate and tab. misoprostol 800 microgram was given. Uterus was flabby and not contracted, so uterine massage was also performed. Cervicovaginal canal was explored and cervical tear was also identified laterally, which was sutured with catgut. Injection tranexa 500 mg was also administered. PPH was managed efficiently and mother was kept in observation for 2 hours in labour room and then shifted to ICU. In ICU, 1 unit blood was transfused on the day of delivery and 1 unit on second day. Mother was on injection Labetalol 20 mg BD and BP was maintained to 110/70 mmof Hg. Haemoglobin was measured after blood transfusion which was 8.5 gm. Mother was discharged on 4th day after delivery. Tablet amlodepine 5 mg OD was prescribed for seven days, tab ferrous sulphate 200 mg OD, regular BP monitoring and iron rich diet was advised. Follow up was advised after one week.

DISCUSSION

Hypertensive disorders are a common complication of pregnancy that put women and their fetuses at disproportionate risk for further complications. In the above case mentioned mother was admitted with complain of headache, high BP and rupture of membranes which resulted into precipitate labour, as total duration of labour was 1 hour 45 min. Foetal distress and post-partum haemorrhage also occurred which may be the complication of pre-eclampsia as well as precipitate labour, but it was not fully understood. As it has been mentioned in previous literature that the incidence of precipitate labour was significantly higher in hypertensive disorders and in lower gestational age.[4] Researchers also believe that precipitous labour is associated with some maternal complications including perineal lacerations, cervical tear and post partum haemorrhage which can be seen in above mentioned case.[5]

Health care workers in the field and facilities have to be alert to these conditions to avert any further complication and mortality. Mrs X last visit was at 26 weeks. After that she came directly at the time of labour pains. Had she interacted one more time or had she come to the hospital before pains, there would have been a chance for early identification and treatment. She was unaware about the importance of routine antenatal visits and she only took iron and calcium from nearby facility, there also no health care provider monitored her blood pressure. This case shows the critical role that community Health care workers play. Monitoring of the field health care providers is not regularly done by seniors. Large and hilly area to be covered may be one factor. Most health providers in the field are only engaged in filling MCH cards. Fully functioning public health system with focus on mother and child is essential to avoid complications. Antenatal sessions should include complete assessment and education of mothers and families. Early detection of risks and birth preparedness need to be done.

Thus, early detection /diagnosis and appropriate management are extremely important in patients with preeclampsia for better maternal as well as perinatal well-being.

CONCLUSION

This case report of women who presented with 36 weeks of gestation, with complaints of headache, BP 180/110 mm of Hg and labour pain. Eventually labour was complicated by precipitate labour, foetal distress, and post-partum haemorrhage. Timely intervention and prompt action saved serious maternal and fetal complication and patient was discharged on oral antihypertensives. Timely antenatal visits, at least 4 at proper interval can screen out cases of preeclampsia which can be properly managed timely and can further reduce complications during labour and birth. Educating women regarding the impending signs of preeclampsia during antenatal visits and importance of blood pressure monitoring at home should be highlighted.

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