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A retrospective cohort study on perinatal outcomes of hypertensive disorders of pregnancy among women hospitalized to a tertiary referral hospital of Udupi Taluk, Karnataka

BINITA SHARMA

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"ABSTRACT

"A retrospective cohort study on perinatal outcomes of hypertensive disorders of pregnancy among women hospitalized to a tertiary referral hospital of Udupi taluk, Karnataka" was conducted in Manipal College of Nursing, MAHE Manipal for the partial fulfillment of the course.

The objectives of the study were to assess the perinatal outcomes of hypertensive disorders of pregnancy and to compare the perinatal outcomes between hypertensive disorders of pregnancy and pregnancy complicated by other comorbid conditions, except hypertensive disorders of pregnancy. The perinatal outcomes were assessed by baseline proforma and checklist, which consisted of items related to antenatal, intranatal and postnatal period. The conceptual framework used in this study is "Integrated perinatal health framework" developed by (Misra, Guyer, & Allston, 2003) to study how lifespan approach integrates with multiple determinants model. The lifespan approach focuses on preconception and interconceptional periods as targets for improving intervention during perinatal period. This framework is related to the present study in identifying the perinatal outcomes of hypertensive disorders of pregnancy.

Administrative permissions were obtained from the Dean, Manipal College of Nursing, Manipal, Medical Superintendent of Kasturba Hospital Manipal, HoD Department of OBG and In charge of NICU. Ethical clearance from Institutional Ethics Committee (IEC), Kasturba Hospital Manipal, and participant information sheets (PIS) were given and informed consents were obtained from the participants.

Content validity and reliability of the tools were established and all the tools were pretested. All tools were found to be reliable. Pilot study revealed the feasibility of the study and the data obtained were used to calculate the sample size. The study was conducted during December 2018 to March 2019 in the "Woman and Child Health Block' of Kasturba Hospital, Manipal. The data gathered were coded and entered in a master sheet and were analysed using Statistical Package for Social Sciences (SPSS) 16.0 version.

The findings of the study were based on the objectives. Out of 140 participants, 70 pregnant women were diagnosed with hypertensive disorders of pregnancy and 70 pregnant women had pregnancy complicated with other comorbid conditions, except hypertensive disorders of pregnancy. Out of the 70 women, 27 (38.6%) had A positive blood group, 38 (54.3%) were multigravida, 63 (90%) of the women conceived spontaneously, 43 (61.4%) underwent emergency lower segment caesarean section (LSCS), 16 (22.9%) underwent elective lower segment caesarean section and 21 (30%) women delivered at 31-35 weeks of gestation. Among 38 multigravida women, 15 (39.5%) had previous history of abortions, two (5.3%) had ectopic pregnancies, two (5.3%) had medical termination of pregnancy (MTP), one (2.6%) had molar pregnancy, nine (23.7%) had intrauterine fetal deaths (IUD), seven (10%) had a history of intrauterine growth restriction (IUGR) as well as preterm delivery and three (4.3%) had a history of chronic hypertension.

Out of the 70 women, 40 (57%) had gestational hypertension, 16 (23%) had preeclampsia, five (7%) had eclampsia, five (7%) had chronic hypertension and four (6%) had preeclampsia superimposed on chronic hypertension. Twenty seven (38.5%) women had proteinuria, 12 (17.1%) had absent end diastolic flow (AEDF), two (2.8%) had reversal of end diastolic flow (REDF), one (1.4%) had placental abruption, seven pregnant women (10%) had preterm premature rupture of membrane (PPROM), 12 (17.1%) women had fetal malpresentations, ten (14.3%) received drugs for fetal lung maturity and ten (14.3%) had fetal distress.

During the intranatal period, ten (14.3%) received medical treatment for induction. Among ten (14.3%), two (2.9%) women underwent emergency caesarean as a result of failed induction. Out of 70 pregnant women, 18 (25.7%) received antihypertensive treatment and there were two (2.9%) pregnant women who had intrauterine fetal death (IUD).

Significant risk factors were calculated with relative risk and 95% confidence interval (CI) and it was observed that women diagnosed with hypertensive disorders of pregnancy had eight fold risk of having lower segment caesarean section with RR 8.542 (3.824, 19.081) that was statistically significant (p=0.001) and there was five fold risk of receiving drugs for fetal lung maturity with RR 5.667 (1.194, 26.896) that was statistically significant (p=0.015).

The present study reveals that incidence of caesarean section was higher among pregnant women with hypertensive disorders of pregnancy. The common perinatal outcomes observed were preterm delivery, proteinuria, intrauterine growth restriction, low birth weight (LBW) and ventilatory support required by neonate for their survival. This study concludes that the perinatal outcomes of women with hypertensive disorders of pregnancy are unfavourable when compared to perinatal outcomes of pregnant women with other comorbidities, hence proper education, assessment of early risk factors may be beneficial to combat the unfavourable outcomes.