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Gynaecology

THE ROLE OF EFFECTIVENESS OF ANTENATAL CHECK UP IN TO REDUCTION OF INFANT MORTALITY AND PRETERM BIRTH

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ABSTRACT **Aim:** To study the role of ANC in infant mortality and preterm birth. Methods: This study was done for a period of one year from April 2016 to March 2017 in patients who has come in outpatient department in obstetrics and gynaecology department of JLNMCH, Bhagalpur. Thorough examination, investigations were performed. A total of 100 cases were taken in the study. All patients were given proper antenatal care before delivery. Results: Out of 100, 85 patients attended ANC, 15 patients did not attend ANC. Age group of woman attending ANC was 25-35 years. Financial problems in 10 patients and ignorance in 5 patients was the reason not to attend ANC. Woman who attended ANC were immunized regularly and iron supplements were given but not in patients who did not come for ANC. Maternal complications like anaemia and pregnancy induced hypertension occurred more commonly in women without ANC. The proportion of low birth weight and preterm babies was higher in women with inadequate or no ANC. NICU admissions were more in patients who did not go for ANC due to various reasons like neonatal sepsis, birth asphyxia, jaundice etc. Two neonatal deaths has been reported in patients without ANC. No mortality in patients with ANC. Maternal and perinatal outcomes were found to be better in women who attended regular ANC. Conclusion- ANC is very important for pregnant ladies. The quality of antenatal care needs to be strengthened. The health system needs to ensure the availability of ANC in primary care level and to establish mobile clinics for those living far from the health facilities.

KEYWORDS : Antenatal care, infant mortality, preterm birth, immunization

Introduction-

Antenatal Care (ANC) means "care before birth", and includes education, counselling, screening and treatment to monitor and to promote the well-being of the mother and foetus. The current challenge is to find out which type of care and in what quantity is considered sufficient to ensure good quality of care for low-risk pregnant women. Only interventions of proven effectiveness, for which benefits largely overcome possible harms, and those acceptable to pregnant women and their families, should be offered. The aim of Antenatal care (ANC) is to assist women to remain healthy, finding and correcting adverse conditions when present, and thus aid the health of the unborn. ANC should also provide support and guidance to the woman and her partner or family, to help them in their transition to parenthood. This implies that both health care and health education are required from health services. This broad definition of ANC is endorsed by national labour laws and by evidence-based clinical guideline. In many developing countries health promotion in antenatal clinics is limited to passive reception of a health talk and more passive communications through wall posters. The impact of this kind of intervention on health outcomes is at best limited. This commentary will focus on the potential of antenatal screening as a significant contributor to infant mortality reduction in developing countries. A review of the international effectiveness literature conducted at the NPEU in 2008 (updated in 2009 confirmed the paucity of relevant systematic review level evidence relating to infant mortality and related outcomes in disadvantaged populations; and a review of UK interventions to improve perinatal outcomes in disadvantaged groups found limited UK evidence of effective interventions for disadvantaged childbearing women . Antenatal care is generally thought to be an effective method of improving outcomes in pregnant women and their babies, although many antenatal care practices have not been subject to rigorous evaluation . One review from the early 1990 s evaluated 'prenatal care packages' but found only five studies of adequate quality which evaluated the effect of the programme on gestational age at birth and/or infant mortality, two of which (Nurse Home Visitation; and case management were found to have a positive effect on the relevant outcome measure. Other systematic reviews have evaluated the effect of specific antenatal care packages on preterm birth (PTB) and infant mortality, including: alternative ways of delivering antenatal care to Australian indigenous women; telephone support and home visiting programmes; continuity of caregiver during pregnancy and childbirth; and modified timing and frequency of antenatal care visits. In most developing countries severe blood loss or hemorrhage is often the leading cause of maternal mortality. Hemorrhage could be antepartum (before onset of labor) or postpartum (in practice it includes bleeding during labor and afterwards). By far, postpartum hemorrhage (PPH) contributes more to maternal mortality than antepartum hemorrhage. Unfortunately, there is no detectable state or algorithm that can help to identify women who will develop PPH in antenatal clinics. Pre-pregnancy anemia limits the compensatory capacity of women when blood loss occurs but anemia is not one of the seven leading causes of maternal mortality.

Material and Methods

This study was done for a period of one year from April 2016 to March 2017 in patients who has come in outpatient department in obstetrics and gynaecology department of JLNMCH, Bhagalpur. Thorough examination, investigations were performed. A total of 100 cases were taken in the study. All patients were given proper antenatal care before delivery.

Results

Out of 100, 85 patients attended ANC, 15 patients did not attend ANC. Age group of woman attending ANC was 25-35 years. Financial problems in 10 patients and ignorance in 5 patients was the reason not to attend ANC. Woman who attended ANC were immunized regularly and iron supplements were given but not in patients who did not come for ANC. Maternal complications like anaemia and pregnancy induced hypertension occurred more commonly in women without ANC. Neonates born to women with inadequate care tended to have lower birth weights ($p = 0.05$) and higher rates of admission to NICU . The proportion of low birth weight and preterm babies was higher in women with inadequate or no ANC. NICU admissions were more in patients who did not go for ANC due to various reasons like neonatal sepsis, birth asphyxia, jaundice etc. Two neonatal deaths have been reported in patients without ANC. No mortality in patients with ANC. Maternal and perinatal outcomes were found to be better in women who attended regular ANC.

DISCUSSION:

ANC is an important component of Safe Motherhood Initiative and ANC services may help in prompt identification of pregnancy complications and their timely treatment. Therefore, these services are prerequisite for health of the mother and the new-born. Primigravida woman reported more frequently than multigravida. In our study, the birth weight of newborn with no prenatal care was higher. In a study Hueston et al, indicated that the prevalence of low birth weight was lower in newborns who had received prenatal care from the first trimester compared to those who had received the care in the second and third tri- mester. Goldani (2004) considers the impact of pre- natal care on improving birth weight as the result of pre- vention of newborns with SGA, better nutrition during pregnancy and reduced

cigarette smoking in women with adequate prenatal care. The present study reported that, the rate of NICU ad- mission was lower in the group with adequate prenatal care. Nevertheless, the 1st and 5th minute Apgar scores were not significantly different between the two groups. However, in the study by Boss et al, sufficient prenatal care was associated with improved neonatal mortality, birth weight, and Apgar scores.

Conclusion

Effective and appropriate antenatal care should be offered to all pregnant women. The interventions should be provided free of charge to all pregnant women to ensure their universal access and utilization. ANC is very important for pregnant ladies. The quality of antenatal care needs to be strengthened. The health system needs to ensure the availability of ANC in primary care level and to establish mobile clinics for those living far from the health facilities. Adequate prenatal care results in better birth weights and decreased rate of admission in NICU.

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