



MATERNAL AND FETAL OUTCOME IN PREGNANCY WITH HEART DISEASES

Gynecology

Dr. Sweety Sinha Assistant Professor, Dept. Of Obstetrics And Gynaecology, PMCH, Patna.

ABSTRACT

Background: Cardiac disease is an important cause of maternal mortality and morbidity both in antepartum and postpartum period. The overall incidence of heart disease in pregnancy is <1%. Objective of present study was to determine maternal outcome in pregnant women with heart diseases in terms of fetal complication, maternal complication and Mode of delivery.

Methods: This study was conducted in the Department of Obstetrics and Gynaecology at PATNA MEDICAL COLLEGE, HOSPITAL, Patna. 40 women with heart disease which were previously established or diagnosed during pregnancy were enrolled in the study.

Results: In 40 women pregnancies was complicated by heart disease in the study. The prevalence of heart disease amongst all pregnancies found in hospital was 4.3%. The principal cause of cardiac lesion was Rheumatic heart disease (RHD) (62.5%) while congenital heart disease was seen in 12.5%. Among the women who had RHD, mitral stenosis seen in 15 (37.5%) was most common lesion and Multiple cardiac lesions 10 (25%) women. Among the women with congenital cardiac disease, mitral valve prolapse was most common constituting 5 (12.5%) cases. women delivered by caesarean section were 14 (35%) while 26 (65%) had vaginal delivery. with spontaneous onset of labour in 20 (50%) and assisted instrumental vaginal delivered in 6 patients. There was 1 maternal death. No baby had congenital heart disease. 70% babies born weighed more than 2kg.

Conclusions: This study concluded that pre-pregnancy diagnosis, counselling, appropriate referral, antenatal supervision and delivery at equipped centre improve the pregnancy with heart disease outcome for both mother and baby.

KEYWORDS

Cardiomyopathy, Mitral valve stenosis, Pregnancy, Rheumatic heart disease

INTRODUCTION

Cardiac disease is one of the important cause of maternal mortality and morbidity both in antepartum and postpartum period. Cardiac disease in pregnancy is broadly divided into congenital and acquired. The acquired group includes RHD, cardiomyopathies and ischemic heart disease. Of these, in developing countries rheumatic heart disease is the commonest type, whereas cardiomyopathies and congenital heart disease one more common in developed countries. Among all presentations of Rheumatic heart disease, mitral stenosis is the predominant lesion and accounts for nearly three quarters of all cases.

Cardiovascular abnormalities are considered most important non-obstetric cause of morbidity and mortality during pregnancy. In women of childbearing age, Rheumatic and Congenital heart diseases are currently the most frequently found cardiovascular diseases. In developed countries, the prevalence of pregnancy complicated by rheumatic heart disease (RHD) has decreased. Previous ratio of 3:1 for RHD to congenital heart disease complicating pregnancy is now essentially reversed but in developing countries rheumatic heart diseases are still predominant and continues to be a major cause of maternal morbidity and mortality.

MATERIAL AND METHODS

This study was conducted in the Department of Obstetrics and Gynecology at Patna Medical College Hospital, Patna, during period of 1 year from 1st may 2020 to 1st may 2021. 40 pregnant women with heart disease which were previously established or diagnosed during pregnancy were enrolled in the study. Included in our study were all pregnant women with congenital or acquired cardiac lesions. Disorders like Diabetes mellitus, pulmonary disease, renal disease or any other endocrinological disease were excluded from this study. A structured detailed proforma was used to gather the essential information regarding heart disease in pregnancy. Age, parity, gestational age, cardiac lesions, use of cardiac medications, thorough clinical examination including chest and cardiovascular auscultation, ECG and echocardiographic assessment of left and right ventricular systolic function were noted. The mode of delivery was seen.

RESULTS

A total of 40 patients whose pregnancy was complicated by heart disease were included in the study.

Table 1 Age And Parity Distribution

MEAN AGE	22.875	
PRIMIGRAVIDA	24	60%
MULTIGRAVIDA	16	40%

Maximum patients of study group were of 20-30 years of age. Primigravida patients were 60% and multigravida were 40%.

Table 2 Distribution of cardiac lesion

MITRAL VALVE STENOSIS	15 (37.5%)
MULTIPLE VALVE LESION	10 (25%)
CONGENITAL HEART DISEASE	5 (12.5%)
CARDIOMYOPATHIES	5
PRIOR CARDIAC SURGERIES	5

Rheumatic heart disease was the commonest heart disease, constituting 62.5% of cases.

Among the women who had Rheumatic heart disease, Mitral Valve stenosis being the most common lesion and was seen in 15 (37.5%) of cases. Multiple cardiac lesions were present in 10 (25%) of women. Among the women with congenital cardiac disease, mitral valve prolapse was most common lesion constituting 5 (5%) cases.

Table 3 Maternal and perinatal outcome

LSCS	14
SPONTANEOUS VAGINAL DELIVERY	20
INSTRUMENTAL VAGINAL DELIVERY	6
Baby weight >2kg	28
<2kg	12
NICU admission	12

Majority of the patients were delivered vaginally. LSCS was done for obstetrical indications in 14 patients. 1 patient was applied forceps and 5 patients ventouse to cut short 2nd stage of labour.

Among all the babies born alive none had congenital heart disease. Among all babies born 28 (70%) weighed more than 2 Kgs. 12 babies were admitted in NICU, but recovered well.

CONCLUSION

Present data supports the fact that the prognosis of pregnant women with heart disease has improved, leading frequently to successful outcome. Proper evaluation of maternal prognosis prior to conception and adequate clinical follow up during pregnancy are both fundamental measures for obtaining a satisfactory outcome in these patients. This study concluded that pre-pregnancy diagnosis, counselling, appropriate referral, routine antenatal supervision and delivery at an equipped centre improve the pregnancy with heart disease outcome for both mother and baby. Cardiac failure is a serious complication and often leads to maternal death. We therefore stress the need to monitor cardiac patient for early detection and management of heart failure throughout the course of pregnancy, labour and puerperium.

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