

ABSTRACT

BACK GROUND

Heart disease has re-emerged as one of the leading cause of maternal mortality in world and in Sri Lanka it was the major indirect cause of maternal death in 2004. Maternal complications and poor fetal outcome are also markedly increasing.

OBJECTIVES

Description and analysis of socio demographic features, types of lesions, pain control in labour, modes of delivery, maternal and fetal outcome are the main objectives.

DESIGN & SETTINGS

Cross sectional analytical study was conducted in obstetric units, Teaching Hospital, Kandy.

METHOD

Eighty one mothers with heart disease and 162 matched uncomplicated pregnant mothers were recruited in non randomized way.

RESULTS

Average ages of cases were 29.2 ± 11.2 (range 17-42) and controls 28.3 ± 10.4 . There were statistically significant differences observed in height and weight ($p=0.001$), but the BMI ($p=0.11$). There were almost similar distributions seen in ethnic origin, educational status, and economical status in both groups. Majority were para 2 in both groups, however more grand multipara seen in controls (3.1% vs 1.2%). Majority

of mothers were having Rheumatic (43.2%) origin and MR was the commonest lesion (54.3%) while MS and ASD were sharing 20.9% each. Pulmonary hypertension was detected in 33.3% and 6.1% were classified as NYHA III or IV. More preterm deliveries occurred in cases (23.5% vs 16.1%) but it was not significant ($p=0.16$). Usage of anaesthesia in heart disease mothers was significant (81.4% vs 40.1%; $\chi^2=35.1$; $p<0.001$) and 20.9% of cases received epidural analgesia. Less number of heart disease mothers were given syntocinon during labour and it was statistically significant ($\chi^2=9.9$; $p=0.002$). More cases were delivered by LSCS (41.9% vs 18.5%) and instrumentally (8.6% vs 3.1%) than controls.

Lower birth weights observed in cases than controls (2.64 ± 1.22 kg vs 2.92 ± 1.32 kg) more LBW babies were seen in cases ($\chi^2=-3.23$; $p<0.001$). Perinatal mortality was high in heart disease mothers (6.2% vs 2.5%) and congenital abnormality in babies also seen more but not significant (5% vs 1.2%; $p=0.07$). There were 2 maternal deaths (2.4%) seen in cases; one due to cardiomyopathy and the other due to primary pulmonary hypertension. Maternal complication is highly significant in heart disease mothers (OR=1.6; 95% CI 2.65-16.8). Significant number of heart disease mothers received special ICU/CCU care than controls ($\chi^2=28.3$; $p<0.001$) and more cases were sterilized after delivery ($\chi^2=10.6$; $p=0.01$).

CONCLUSION

Pregnancy in women with MS, PHT and arrhythmias are associated with increase in maternal morbidity and unfavourable fetal outcome which are related to severity of disease. Therefore, there is a need for identifying and implementing strategies to reduce these complications due to heart disease in pregnant women