

Association Between Carpreg Score and Cardiovascular Complications of Pregnant Women with Heart Disease

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Background

Heart disease in pregnancy is the leading cause of indirect maternal death. According to the vital statistics of Central Women's Hospital, Mandalay, there were 34, 49 and 87 cases of pregnant women with heart disease in 2015, 2017 and 2019. Heart disease in pregnancy accounted for 12.24% and 11.11% of maternal mortality in 2019 and 2023 respectively. The purpose of the research was to study association between CARPREG score and cardiovascular complications of pregnant women with heart disease.

Methods

This hospital based descriptive study was carried out in Central Women's Hospital, Mandalay during the period of one year from 1st January 2021 to 31st December 2021 and it included pregnant women with heart disease at or after 28 weeks of gestation until delivery. Maternal cardiovascular complications were recorded during antenatal, intrapartum and postnatal period up to 6 weeks after delivery. CARPREG score was calculated and classified as CARPREG 0, 1 or >1. The patients were distributed into two risk groups; CARPREG 0 and 1 were classified as low risk and CARPREG > 1 as high risk. The association between CARPREG score and cardiovascular complications was determined.

Results

The majority of patients belonged to 26-35 year of age group (59.7%). The commonest gravida group was primigravida

(49.25%). The commonest BMI group was between 18-25 kg/m² (47.76%). The most common type of heart disease in pregnancy was rheumatic valvular heart disease (64.18%). The most common cardiovascular complication was worsening of at least two New York Heart Association functional classes (40.3%). Low risk CARPREG score group was associated with 29.41% of overall cardiovascular complications and high risk CARPREG score group was associated with 69.70% of overall cardiovascular complications (p-value = 0.001).

Conclusions

Increased number of cardiovascular complications were found in high risk CARPREG score group compared to low risk CARPREG score group. Therefore, there is statistically significance between CARPREG score and cardiovascular complications of pregnant women with heart disease.

Reference

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