

Anemia is Associated with Increased Mortality and Adverse In-Hospital Outcomes in Women with Peripartum Cardiomyopathy: A Nationwide Data Analysis

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Abstract:

Background: Anemia is a common comorbidity during pregnancy and in non-pregnant females of childbearing age. Our goal was to ascertain its association with in-hospital mortality and complications in females with peripartum cardiomyopathy (PPCM).

Methods: The national inpatient sample was retrospectively queried from 2011-2017 to identify all women aged 17 to 51 years with the diagnosis of PPCM. We further identified diagnosis of anemia within each admission using ICD-10 codes (D64.9 and D64.89). Primary outcome was inpatient mortality rate while secondary outcomes were in-hospital complications such as acute kidney injury (AKI), pulmonary edema and antepartum hemorrhage. Demographic (age, sex, race) and clinical (history of hypertension, stroke, myocardial infarction, obesity, smoking) data was also noted. Analysis was conducted using STATA 16.0. Adjusted odds ratios (AOR) were calculated with multivariate logistic regression method reported with confidence interval (CI) and a P-value (significance ≤ 0.05).

Results: We recorded 211,476 hospitalizations for PPCM, out of which 38% (80,361) had anemia. Average age of the patients was 35 years and 78% of the women were Caucasian. Overall inpatient mortality rate was 3.9% and was higher in PPCM hospitalizations with anemia compared to those without anemia [4.1% vs 3.3%; AOR: 1.24 (1.19 – 1.30, $p < 0.001$)]. Women with PPCM and anemia reported clinically significant history of obesity and smoking ($p < 0.001$). PPCM hospitalizations with anemia also had higher incidence of preeclampsia, AKI, acute pulmonary edema, and antepartum hemorrhage (Table).

Conclusion: Our study demonstrates that anemia increases inpatient mortality rate in women with PPCM. Anemia also increases in-hospital incidence of preeclampsia, AKI, acute pulmonary edema, and antepartum hemorrhage in women with PPCM.