

COVID-19 in pregnant women with heart diseases. Adverse maternal and fetal outcomes. Case series from InCor registry of Pregnancy and Heart Disease

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Background: Heart disease is the leading non-obstetric cause of maternal death during pregnancy. In this field, the emergence of pandemic COVID-19 has caused the worst-case scenario considering that pregnant women are more susceptible to viral infections, and preexisting cardiac disease is the most prevalent co-morbidity among COVID-19 deaths.

Purpose: To assess the maternal and fetal outcomes of COVID-19 during pregnancy of women with heart diseases.

Methods: During the year 2020, among 82 pregnant women with heart disease followed consecutively at the Instituto do Coração-InCor, seven of them with an average age of 33.2 years had COVID-19 during their pregnancies. The underlying heart diseases were rheumatic valve disease (5 pt), congenital heart disease (1 pt) and one case with acute myocarditis, without preexisting cardiopathy. The prescription (antibiotics, inotropes, corticosteroids and others) used was according to the clinical conditions required for each patient, however subcutaneous or intravenous heparin was used in all patients.

Results: Only one case had an uneventful maternal-fetal course, the other six women required hospitalization / ICU for an average of 25.3 days, including the need for mechanical ventilation in two of them. Serious complications were related to respiratory failure (ADRS), recurrent atrial flutter with hemodynamic instability, acute pulmonary edema, and cardiogenic shock associated with sepsis which caused two maternal deaths. There were two emergency mitral valve interventional, percutaneous balloon valvuloplasty and valve bioprosthesis replacement, respectively. There were five premature births with an average gestational age of 34.2 weeks of gestation, which resulted in one stillbirth. Pathological findings of three placental and the six-months follow-up of the babies did not confirm vertical transmission of COVID-19.

Conclusions: The uncertain evolution given of the overlapping complications of three conditions – COVID-19, pregnancy, and heart disease – implies an increased risk for women with heart diseases of childbearing age, for whom pregnancy should be discouraged and planned after vaccination