Successful maternal and fetal outcome in an HIV+, cocaine-abusing parturient with infective endocarditis, severe aortic insufficiency, and congestive heart failure

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Abstract Body: An unusual combination of HIV and infective endocarditis caused a previously asymptomatic parturient to decompensate in the third trimester of pregnancy. The interplay of pregnancy, immunosuppression, and cardiac disease aggravated by drug abuse are discussed in this unusual case. The patient had two prior uneventful pregnancies and was previously healthy. She presented late at night in the labor and delivery unit with symptoms of respiratory distress, which on further clinical and laboratory investigation revealed severe underlying cardiac disease.

Case Description: A 26-year-old woman (G3, P2) at 34 weeks gestation presented with fever, right lower back pain, and upper respiratory symptoms; she was found to be HIV+, hypokalemic, pancytopenic, and azotemic. After she rapidly developed fulminant pulmonary edema and hypoxemia secondary to cardiac decompensation, an echocardiogram demonstrated severe aortic insufficiency with vegetations involving all three valve leaflets. After initial stabilization and hemodynamic support, the baby was delivered via Cesarean section; the patient subsequently had open heart surgery with aortic valve replacement.

Discussion: Heart disease is a leading cause of maternal morbidity and mortality (1). Independent predictors of neonatal complications include a maternal New York Heart Association heart failure classification >2, anticoagulation use during pregnancy, smoking, multiple gestation, and left heart obstruction (2). The gravid state, in turn, exacerbates chronic maternal cardiovascular comorbidities. Because cardiac surgical morbidity and mortality in the parturient is higher than in nonpregnant patients, most parturients with cardiac disease are first managed medically, with cardiac surgery being reserved for when medical management fails.

After stabilizing the patient’s airway and hemodynamics, the decision was made to deliver the baby via Cesarean section to improve fetal outcome. The fetus—already exhibiting growth retardation—would suffer further uteroplacental insufficiency if pregnancy were allowed to continue. Cardiac surgery during pregnancy carries considerable risk, especially for the fetus. Similarly, the mother would have improved chances of survival after delivery, as open heart surgery was planned shortly thereafter. This patient presented with poor antenatal care, congestive heart failure (NYHA class 4), and endocarditis, with associated comorbidities of smoking, cocaine abuse, and HIV. The keys to successful management were immediate detection by clinical suspicion and confirmation by echocardiography, timely delivery with multidisciplinary support, and invasive monitoring.

References