Infective endocarditis (IE) in the pregnant patient is a rare presentation, though its incidence is rising amidst the opioid epidemic and associated intravenous drug use. Given its rarity, there is limited established guidance regarding appropriate management of the pregnant patient with IE. Given the sparsity of research in this area, this report aims to add to the body of literature regarding IE in pregnancy by describing a case in a pregnant patient at our institution, the management of said patient, and the maternal and neonatal outcome.

**Case presentation**

29-year-old gravida six para four at 22 weeks gestational age with a known history of intravenous drug abuse (IVDA) was admitted after being found unresponsive and ill-appearing at her home. Echocardiogram revealed a large (0.8 cm) sessile vegetation involving both mitral valve leaflets, with features concerning for abscess. The patient was septic and met the modified Duke Criteria for infective endocarditis.

- Appropriate treatment of the patient and delivery of the fetus required significant multidisciplinary teamwork to optimize maternal and fetal outcomes. The plan became to deliver the fetus prior to valve replacement at 28 weeks, along with careful monitoring for maternal deterioration indicating surgical intervention. The mother was managed conservatively with IV antibiotics. However, she then left against medical advice. At 28 weeks, she was readmitted for acute decompensation, the fetus was delivered, and the valve was replaced. The neonate and mother recovered well in the immediate postoperative period. The patient then resumed IVDA, was readmitted 2 months postoperatively, and died of sepsis.

**Discussion**

The estimated incidence of IE during pregnancy is exceedingly rare at 0.006%. However, the rates of IE have risen in the last two decades, including among pregnant patients and reproductive aged women, particularly in areas significantly impacted by the opioid epidemic. Given the increased stress on the maternal cardiac system, it is not surprising that IE is associated with extremely poor maternal and fetal outcomes. Several commentators report mortality in pregnant patients with IE to be as high as 33% vs. 18% in non-pregnant patients. In pregnancy complicated by IE however, surgical intervention remains uncommon. This is largely because the risks of fetal or neonatal death in surgery requiring cardiopulmonary bypass (CPB), have consistently been reported in larger compressive studies as between 20-30%, along with the risk of maternal death in cardiac surgery at 11%. However, in all reported studies, the decision to intervene surgically followed a discussion between the patient and a multi-disciplinary physician team (MDT).

In this case, we demonstrate an approach to the management of a 29-year-old female with mitral valve IE in the second trimester of pregnancy. In our case, the early formation of a multidisciplinary team resulting in an established management plan, and initial conservative care with careful monitoring for acute decline requiring surgical intervention helped us maximize short-term positive maternal and fetal outcomes.