

Cesarean Section in an Impella Dependent Patient

Sierra Trost, MD; Liliana Goelkel Garcia MD; Mikayla Troughton MD; Benjamin Gorbaty MD; Iryna Chugaieva, MD
Department of Anesthesiology, University of Minnesota Medical Center, Minneapolis, MN

We report a case of successful use of an Impella to maintain fetal viability in early pregnancy and support hemodynamics during planned Cesarean Delivery in a parturient with anthracycline induced heart failure.

Background

Pregnancy-related physiologic and hemodynamic changes are poorly tolerated by patients with pre-existing heart failure and such patients are at high risk for sudden decompensation. Severe cases may require initiation of mechanical circulatory support (IABP, Impella (figure 1), LVAD or ECMO).

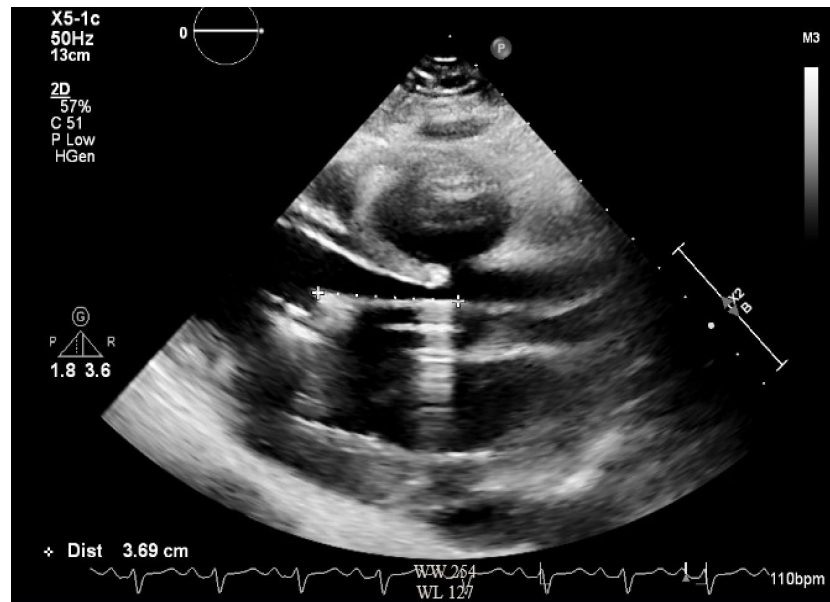
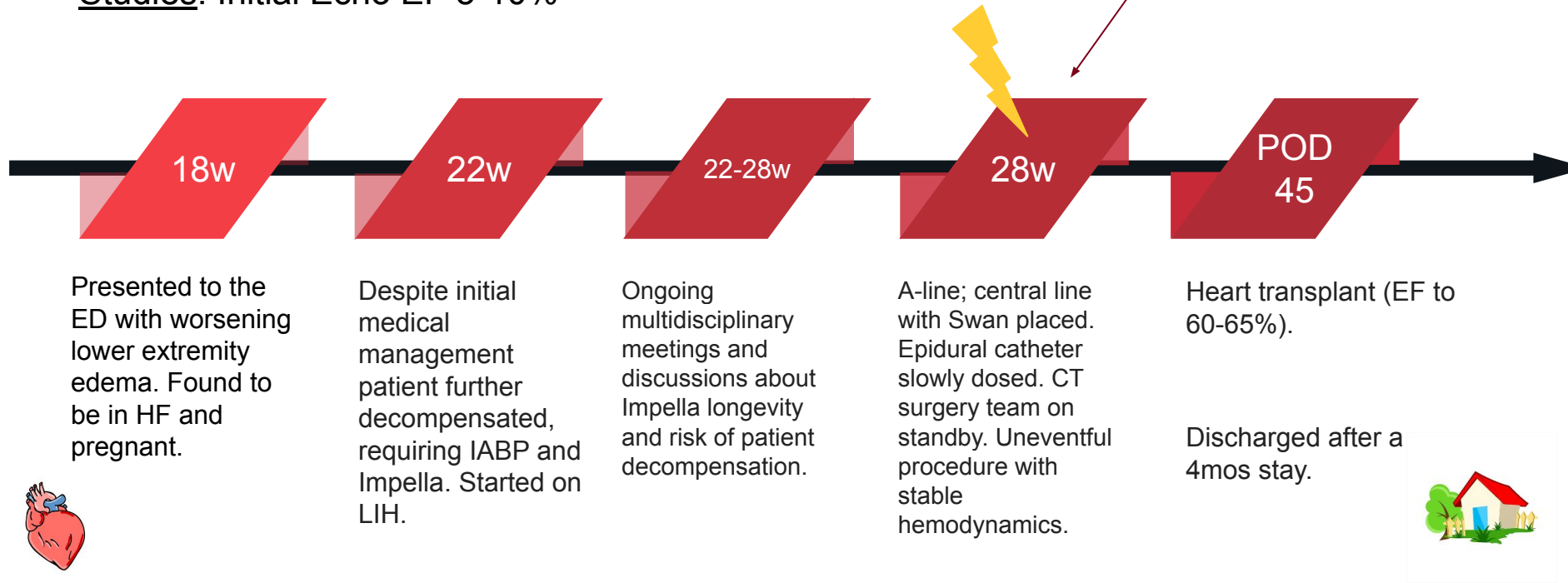


Figure 1. Impella placement seen on echocardiogram

Case Presentation

- 30 yo G1P0 at 28w0d for primary cesarean section
- PMHx: osteosarcoma s/p anthracycline therapy
- Studies: Initial Echo EF 5-10%

Delivery Day



Discussion

Management of pregnant pt with MCS presents multifaceted challenges requiring coordinating care with multiple teams. Multidisciplinary meetings promote cohesive teamwork and translates to enhanced patient care.

Ethically: We disclosed the significant maternal and fetal risks of pregnancy due to her critical heart failure. After a detailed discussion and shared decision making, patient elected to continue with this pregnancy. She was amenable to the possibility of early delivery after viability had been reached.

Carefully titrated neuraxial technique with appropriate hemodynamic monitoring and personnel on standby remains an option for delivery in these patients.

