

Anesthesia Management of caesarean section in patient with Pericardial effusion

Dr Kuraganti MD, Dr Kamath MD, Dr Yarmush MD

NewYork-Presbyterian
Brooklyn Methodist Hospital

Background

- ▶ Small subclinical pericardial effusions are common and have been reported to be present in 15 to 20 percent of all pregnancies in the first and second trimester and approximately 40 percent in the third trimester (1). These effusions are asymptomatic and usually resolve spontaneously. In the absence of signs or symptoms of acute pericarditis or cardiac tamponade, neither diagnostic testing nor specific treatment is required. However, cardiac tamponade may be partially masked during pregnancy due to the physiologic increase in circulating blood volume. This may lead to a larger pericardial effusion being present before signs or symptoms are detected.

SOAP
Society for Obstetric
Anesthesia and Perinatology

Anesthesia Management of caesarean section in patient with Pericardial effusion

- ▶ Our patient is a 25-year-old woman with SLE. She had a previous pregnancy only complicated by preeclampsia necessitating a C-section.
- ▶ This pregnancy was remarkable for a symptomatic pericardial effusion during the first trimester requiring pericardiocentesis. The remainder of her pregnancy was uncomplicated until 37 weeks gestation when a repeat echo for planned C Section showed LVEF of 55-60% with a large primarily posterior directed pericardial effusion similar to her previous effusion. The patient denied any chest pain, palpitations or dyspnea. There was no evidence of tamponade. Her vital signs and labs including chest x-ray and EKG were normal.
- ▶ A multidisciplinary meeting was convened with obstetrics, anesthesia, cardiology, hematology and rheumatology teams to discuss her planned elective C-section. A sequential combined spinal-epidural (CSE) with careful fluid management to maintain preload, afterload and heart rate was agreed upon in view of her heart condition.

Anesthesia Management of caesarean section in patient with Pericardial effusion

- ▶ Standard monitoring along with invasive arterial pressure monitoring was established. An epidural catheter was inserted via the L₃₋₄ interspace using an 18 G Tuohy needle. Lumbar puncture was performed at L₃₋₄ interspace and 1 ml (7.5 mg) hyperbaric bupivacaine along with 15 mcg fentanyl and 0.15 mg morphine was given intrathecal, after confirming free flow of cerebrospinal fluid. Sensory level was achieved till T₆. Simultaneously, the patient was given 750 cc of 5% Albumin and a norepinephrine drip was started. Crystalloid was titrated throughout for a total of 1500 ccs. A slow intravenous oxytocin infusion (30 units in 500 ml of 0.9% saline) was started soon after delivery of baby. Patient was comfortable and asymptomatic throughout.
- ▶ Careful co-loading of fluids and a norepinephrine drip allowed for an uneventful C-section with regional anesthesia.

Reference:

- ▶ 1. Abduljabbar HS, Marzouki KM, Zawawi TH, Khan AS. Pericardial effusion in normal pregnant women. Acta Obstet Gynecol Scand 1991; 70:291.