Introduction:
The induction of anesthesia in a patient with a large anterior mediastinal mass can precipitate life-threatening compression of airway and cardiovascular structures. Diagnosis of such masses can be delayed in pregnancy as symptoms may mimic the normal cardiorespiratory changes of pregnancy. We present the anesthetic management for Cesarean delivery of a parturient with a large anterior mediastinal mass at 34 weeks gestation. Written consent was obtained from the patient.

Case Description:
The patient was a 30-year-old G3P2 with a 4 month history of dyspnea and cough, attributed to asthma and physiologic changes of pregnancy. A CT scan was done the preceding week to assess for pulmonary embolus, and instead confirmed a 12 cm anterior mediastinal mass with lymphadenopathy suggestive of lymphoma. Tracheal compression and deviation was noted, along with significant compression of the left mainstem bronchus, as well as the left subclavian artery and vein. She initially denied orthopnea, chest pain or hoarseness. An echocardiogram demonstrated minor, peripheral left pulmonary artery compression. A multidisciplinary meeting was held with anesthesiology, high-risk obstetrics, medical oncology and the patient; an elective Cesarean delivery was planned for the following day. The patient was reassessed the next morning and had developed profound positional dyspnea, hoarseness, and a new “choking sensation” overnight, with no clinical evidence of SVC syndrome. Significant progression of her airway compression was suspected, thus an urgent, awake lymph node biopsy was performed for tissue diagnosis, followed by immediate administration of steroids prior to her Cesarean delivery. Otolaryngology and cardiac surgery were on standby for emergency rigid bronchoscopy and cardiopulmonary bypass (CPB), respectively. A right-sided radial arterial line and left-sided femoral central line were placed. To expedite emergent CPB in the event of cardiovascular collapse, the right femoral vessels were exposed and CPB lines were primed and readily available. Adequate epidural anesthesia was achieved with 12 mL of 2% lidocaine. The patient was hemodynamically stable until immediately following delivery; precipitous hypotension (60/20) followed by bradycardia (50 bpm) was noted prior to administration of uterotonics. She was tilted further to her left side, and given phenylephrine 300 mcg and ephedrine 10 mg IV. Her hemodynamic status returned to baseline and she was transferred to the ICU post-operatively.

Discussion:
This case highlights the severe, acute decompensation that can occur with a rapidly growing mediastinal mass, and the need for a constantly evolving, multidisciplinary plan. Previous case reports describe having CPB teams on standby. However,
establishment of CPB can take several minutes, thus others have described preoperative cannulation in high-risk patients.\textsuperscript{3-4} For our patient, in consultation with cardiac surgery, we elected to have our CPB team on standby with adequate exposure of the femoral vessels, to avoid cannulation and further complications.

References:

Figure 1

Repeat computed tomography done immediately after Cesarean section showing the large anterior mediastinal mass.