Pulmonary Hypertension (PH) is a rare, progressive, and potentially fatal disease. Destruction of the pulmonary vascular bed with a consequential rise in pulmonary artery pressures is the underlying pathology. When PH is combined with the physiologic effects of pregnancy, the mortality rate can rise to more than 50% for vaginal delivery and 100% for caesarean section. Review of the literature reveals very little regarding the preferred and safest method of anesthesia. Cases have been reported using various methods of anesthesia including general, spinal, or epidural anesthesia with high maternal mortality.

Case #1
A 30 year old female at 35 weeks and 5 days (GA) with a history of severe PH presented for an elective cesarean section (CS), bilateral tubal ligation (BTL) and left oopherectomy. A transthoracic echocardiogram (TTE) revealed pulmonary artery systolic pressures (PASP) of 87-92 mmHg with right ventricular volume and pressure overload, an ejection fraction of 60-64%, and normal wall motion. The anesthetic consisted of standard ASA monitors, arterial line, cordis introducer, pulmonary artery catheter, intranasal nitric oxide, and epidural catheter. Anesthesia was maintained with 2% lidocaine via epidural. Despite dosing the epidural very slowly, the patient’s blood pressure decreased requiring a neosynephrine drip for blood pressure support. For the majority of the procedure the pulmonary artery pressure was higher than the systemic blood pressure. The patient tolerated the procedure well. On postoperative day 3 she was discharged home following an uneventful hospital course.

Case #2
A 23 year old female at 28 weeks GA with a history of severe PH presented in labor with a breech presentation for an urgent CS and BTL. Her past medical history included PH, postpartum cardiomyopathy, chronic hypertension, systemic lupus erythematosus, lupus nephritis with renal failure requiring hemodialysis, mural thrombus, thrombotic thrombocytopenic purpura and hemolytic uremic syndrome. The TTE showed a PASP of 59-64 mmHg. The anesthetic included a radial arterial line, femoral central venous line, and epidural catheter. Anesthesia was maintained with 2% lidocaine via epidural. The patient required intermittent vasopressors but remained asymptomatic throughout the case. After surgery she was transferred to the intensive care unit in stable condition and was subsequently discharged on postoperative day 3 without complications.

We will present two cases of parturients with severe pulmonary hypertension who underwent caesarean sections under epidural anesthesia without any adverse outcomes. Both patients had pulmonary artery systolic pressures in the range of 60 mmHg to 90mmHg. Of interest, they both had uneventful postoperative courses.

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