

## A Million \$\$\$ Picture

Morbid obese and severe pulmonary hypertension for robotic hysterectomy

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A 43-year old woman with abnormal uterine bleeding and endometrial precancer was scheduled for robotic hysterectomy. Co-morbidities are morbid obese (BMI60), OSA, chronic PE, moderate to severe pulmonary hypertension (PA 53 mmHg, dilated RV and reduced contractility), hypoxic on O<sub>2</sub>, limited activity, HFpEF, HTN, DMT2. Medications include viagra, eliquis, lotensin, clonidine, prozac, insulin, Iron, flexeril, and glucophage. After visiting PAC, it was not clear should she have a robotic procedure, or rather precede with open abdominal surgery.

Anesthesia concerns were: 1) airway (mask and intubation); 2) ventilation and oxygenation; 3) airway pressure and positioning (STP 30°); 4) cardiac instability, the most intraoperative challenge. This patient has a significant left heart failure (HFpEF) and right ventricle failure plus volume overload. Intraoperatively CO<sub>2</sub> insufflations would ensure a significant hypercapnia and acidosis which would have profound detrimental effects on pulmonary vascular resistance. Another dilemma was to choose the proper monitoring for a minimal invasive robotic surgery.

A 4-hour surgery was a real challenge to the surgeon and anesthesia team in all aspects. From induction to robotic ports insertion, lost ETCO<sub>2</sub> waveform tracing from the flolan administration, the ever concerned arterial blood gases. The team worked

diligently to ensure a good outcome. Despite the significant hypercarbia and respiratory acidosis intraoperatively, she was successfully extubated in the operating room and recovered well. The patient was discharged home in the following afternoon.

At presentation, will discuss the understanding of airway pressure changes and the monitoring and management for pulmonary hypertension under robotic hysterectomy.