

Case Report: Assessment of Hypotension in the PACU Following Spinal Fusion Using Transesophageal Echocardiographic Management

Performed by Jesse Marymont, MD
Evanston Hospital, Evanston, IL

Objective

Diagnose source of post-surgical hypotension in the post-anesthesia care unit (PACU).

Background

A 77-year-old female weighing 48 kg presented with multiple myeloma which had collapsed her T12 vertebrae.

During the operation her blood loss was 1700 ml and urine was 400 ml. IV fluids were 4500 ml with 4 units of PRBC and 250 ml Hespan. Patient was hypotensive (70-80) in the PACU after being administered .75 liters of fluid and neosynepherine.

Methods

The attending physician ordered a bedside hTEE™ using the ClariTEE® probe (ImaCor Inc., Garden City, NY). The probe was successfully placed and transgastric short axis view (TGS AV) of the left ventricle (LV) was obtained. Qualitative and quantitative analysis of the left ventricular end-diastolic area (LVEDA) revealed hypovolemia, hypertrophy, and sub-optimal wall motion. With this information, additional fluids were aggressively administered and pressors were titrated and discontinued. The ClariTEE probe was left in the patient for further assessments.

Results

Patient was normotensive (140) in the intensive care unit the next morning.

Conclusion

Hemodynamic TEE may present a significant diagnostic advantage in determining the etiology of hemodynamic instability. Providing direct visualization of cardiac filling and function, it may enable rapid and accurate assessment of hemodynamic status, critical to guiding volume resuscitation and administration of fluids.