Avoiding a broken heart during anesthesia - Management of Takotsubo Cardiomyopathy

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Introduction

- Takotsubo myocardial pathology (TCM) is a transient cardiac syndrome that involves left ventricular apical akinesis (also known as apical ballooning) and basal hyper contraction that may symptomatically mimic acute coronary syndrome in the absence of coronary disease.
- It's a rare condition usually triggered by a stressful event and patients are often postmenopausal women. According to systematic reviews the recurrence rate of this condition is between 1.5-1.8%, and patients have a higher risk for major cardiac event, stroke or transient ischemic attack.

Case Presentation

- A 75 year-old female patient, ASA III, scheduled for flexible video bronchoscopy (VB) to study a mass in the lower left lobe
- Medical history: hypertension, diabetes mellitus type 2, dislipidemia, hypothyroidism and chronic urticaria.
- Diagnosed with **Takotsubo Cardiomyopathy** 2 months previously, during omalizumab treatment.
- Complete reversion in 24 hours.

TCM: chest pain + abnormal ECG + decreased systolic function with ejection fraction of 30% on echocardiography + ↑ troponin T + normal coronariography, ventriculography with left ventricular apical akinesis and basal hypertrophy. Complete reversion in 24h.

Pre-medication with 2mg i.v. midazolam, monitored, accompanied by nurse, calm environment.
Before entrance to room: 2 mg i.v. midazolam

3 hours in recovery room, monitored, without complications. Uneventful discharge

Discussion

- The avoidance of stressful events and hemodynamic stability seems to have a major role in the perioperative management of these patients, in order to prevent recurrence and major cardiovascular events.
- The manual boluses was the technique chosen in an attempt to prevent any tachycardia/hypertension according to different invasiveness and stimulation of the technique.
- As this was an uneventful procedure and it is a rare disease, this report could help to raise awareness.

Conclusion

After an exhaustive research we concluded that there's a lack of information about peri and intraoperative management of patients with a previous diagnose of Takotsubo Syndrome. Despite the incidence and recurrence of TCM is believed to be low, anesthesiologists should be aware of this syndrome.