

C-14 Hemodynamic Collapse During Anesthetic Induction: Diagnosis and Management of Massive Intraoperative Pulmonary Embolism

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Objective

After completion of this session, the participant will be able to:

- Select the steps of management of acute pulmonary embolism during induction of anesthesia.

Case Stem Question

A 51-year male was scheduled for an open reduction and internal fixation (ORIF) of a Tib/fib fracture under general anesthesia. He is a construction worker who tripped and fell. He appeared to have a syncopal episode possibly due to pain. Two months prior, he had a history of a fall with bilateral rib fractures and T6 compression fractures for which he was immobilized. He is a current smoker. His vital signs were normal on arrival.

Guiding Questions for Discussion

1. On induction of general anesthesia with an endotracheal tube it was noted that he had no end-tidal carbon dioxide tension (ETCO₂). What should be done next?
2. His O₂ saturations continue to decrease. What do you do next?
3. The patient is now hypotensive, what next? Would you consider any additional monitors?
4. The peak airway pressures have now increased, and a portable CXR with the suspicion of a tension pneumothorax. What next?
5. What is your differential diagnosis? How would you rule out a pulmonary embolus (PE)? What is expected to be seen on TEE?
6. How do you further manage this unstable patient in setting of acute PE?
7. Would ECMO be an option here? If so, what are the next steps?
8. How would management change for PE once the patient is stabilized?