

Clinical and echocardiographic predictors for post-induction hypotension during general anaesthesia

Ahmed Bedier

Mansoura University, Egypt

Abstract

Background: Post-induction hypotension (PIH) is a frequent complication in patients undergoing surgery under general anaesthesia in daily anaesthetic practice. We hypothesized that the previous complication might be linked to the preoperative cardiac status. We conducted this investigation to estimate the incidence and predictors (clinical and echocardiographic) of PIH. **Patients and methods:** We included 150 patients who underwent preoperative echocardiography before undergoing surgery under general anaesthesia. Their data were retrospectively reviewed. The incidence of PIH was estimated, and the patients were divided into two groups: No-PIH and PIH groups. **Results:** PIH was detected in 56 cases (37.33%). The female gender showed a higher prevalence in the PIH group. However, the reported medications and systemic comorbidities did not have a significant effect on that complication, apart from heart failure, which increased in association with PIH. The same group had significantly lower haemoglobin levels. Regarding echocardiographic findings, the PIH group expressed higher end-systolic and diastolic left ventricular diameters, deceleration time, and E/e' ratio, while the same group showed lower ejection fraction, E/A ratio, and inspiratory IVC diameter. The presence of valvular pathology was not associated with PIH. Although anaesthetic drugs were comparable between the two groups, epidural analgesia was significantly associated with PIH.

Conclusion: Female gender, heart failure, low haemoglobin levels, high end-systolic and diastolic ventricular diameter, low ejection fraction, low E/A ratio, prolonged deceleration time, increased E/e', decreased inspiratory IVC diameter, and epidural analgesia were significant risk factors for PIH.

Keywords: Post-induction hypotension; Predictors; Echocardiography.

Received: June 07, 2022; **Accepted:** June 14, 2022; **Published:** June 21, 2022

Biography

Ahmed Bedier working as a cardiologist in Medical Specialized Hospital, Mansoura University at Mansoura University, Egypt

and he is a Former Interventional Cardiologist at Cardiology and CCU.