

Risk Factors for Post-Induction Hypotension Among Elderly Patients Undergoing Elective Non-Cardiac Surgery Under General Anesthesia

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Abstract : Background: Postinduction hypotension is common and occurs more often in elderly patients. We aimed to determine risk factors for hypotension after induction among elderly patients (aged 65 years and older) who underwent elective non-cardiac surgery under general anesthesia. Methods: This cohort study analyzed from 580 data between December 2017 and July 2018 at a tertiary university hospital in south of Thailand. Hypotension is defined as more than 30% decrease mean arterial pressure from baseline after induction within 20 minutes or the use of vasopressive agent to treat low blood pressure. Intraoperative parameters were blood pressure and heart rate at T0, TEI, T5, T10, T15 and T20 (immediately after arrival at operating room, time after intubation, 5, 10, 15 and 20 minutes after intubation) respectively. Results: The median age was 72.5 (68, 78) years. A prevalence of post-induction hypotension was 64.8%. The highest prevalence (39.7%) was at 15 minutes after intubation. The association of post-induction hypotension is rising with diuretic drug as preoperative medication (P-value=0.016), hematocrit level (P-value=0.031) and the degree of hypertension immediately after arrival at operating room (P-value<0.001). Increasing fentanyl dosage during induction was associated with hypotension at intubation time (P-value<0.01) and 5 minutes after intubation (P-value<0.001). There was no statistically significant difference in the increasing propofol dosage. Conclusion: The degree of hypertension immediately after arrival at operating room and increasing fentanyl dosage were a significant risk factors for postinduction hypotension in elderly patients.

Keywords : risk factors, post-induction, hypotension, elderly

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