



A COMPARATIVE STUDY OF EPHEDRINE AND MEPHENTERMINE FOR MAINTENANCE OF BLOOD PRESSURE DURING SPINAL ANAESTHESIA IN LOWER ABDOMINAL SURGERIES

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ABSTRACT

Background: Hypotension is a common complication following spinal anaesthesia due to sympathetic blockade resulting in vasodilatation and reduced venous return. Ephedrine and mephentermine are frequently used vasopressors to manage this condition. This study compared their efficacy in maintaining haemodynamic stability during lower abdominal surgeries under spinal anaesthesia. **Methods:** This prospective, randomized, comparative study was conducted in the Department of Anaesthesiology, SSIMS & RC, Davangere. Sixty-six adult patients aged 20–50 years, belonging to ASA physical status I and II and undergoing lower abdominal surgeries under spinal anaesthesia, were enrolled. Patients who developed intraoperative hypotension were allocated into two groups: Group E received intravenous ephedrine 6 mg bolus, and Group M received intravenous mephentermine 6 mg bolus. Haemodynamic parameters including systolic blood pressure, mean arterial pressure, heart rate, recurrence of hypotension, and adverse effects were assessed. **Results:** Both vasopressors effectively corrected spinal anaesthesia-induced hypotension. Ephedrine demonstrated a faster improvement in systolic blood pressure and was associated with fewer recurrent hypotensive episodes. Mephentermine provided sustained haemodynamic stability with a comparatively smaller increase in heart rate. Overall haemodynamic control was satisfactory in both groups. **Conclusion:** Both ephedrine and mephentermine are effective and safe vasopressors for the treatment of hypotension during spinal anaesthesia. Ephedrine offers rapid restoration of blood pressure, whereas mephentermine provides prolonged haemodynamic stability. The choice of vasopressor may be guided by patient characteristics and clinical requirements.

KEYWORDS : Spinal anaesthesia, hypotension, ephedrine, mephentermine, vasopressors, haemodynamic stability.

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