Spinal anesthesia is widely used an accepted technique in elective cesarean sections. However, hypotension resulted from sympathectomy is a common problem issue, especially particularly in pregnant women. The prevention of this complication by using sympathomimetic agents is of potential clinical significance. The aim of this study was to compare the effect of the prophylactic infusion of phenylephrine versus ephedrine to in the prevention of hypotension during spinal anesthesia in elective cesarean sections.

Methods: Eighty-three pregnant women were enrolled in this study and randomly divided into three groups: Group the Ph group received phenylephrine infusion, group the E group received ephedrine infusion, and while group the P group received were delivered a placebo. Vital signs (blood pressure, heart rate, and arterial oxygen saturation) were recorded throughout the surgery. The incidence of maternal and neonatal perioperative complications was also controlled and recorded. Results: There was no insignificant difference in demographic data between among the groups. Systolic and diastolic blood pressures were higher in the phenylephrine group Ph group than in the control P group, but not higher than that in the ephedrine group E group. Maternal dysrhythmias were more common in the ephedrine and Phphenylephrine groups than in the control P group. Vomiting was more common in ephedrine group the E group (P < 0.05). In addition, the fifth-minute Apgar score of neonates was higher in the Phphenylephrine and E ephedrine-groups than in the control P group (P < 0.05). Neonates of in the Phphenylephrine-group had a lower incidence of acidosis than those in the other two groups. Conclusion: Prophylactic infusion of phenylephrine may effectively decrease spinal anesthesia-related hypotension without causing any significant complication for the mother or her fetus.