**Background and Aims:** Spinal anesthesia is widely used as a accepted technique in elective cesarean sections. However, hypotension resulted from sympathectomy is a commonly results in hypotension problem, especially particularly in pregnant women. The prophylactic use of Prevention of this complication by sympathomimetic agents may help prevent this complication is of potential clinical significance. The aim of this study is This study aimed to compare the effect of the prophylactic infusion of Phenylephrine versus Ephedrine in the prevention of hypotension during spinal anesthesia in elective cesarean sections.

**Methods:** Eighty-three pregnant women patients 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 were also compared also controlled and recorded among the groups.

**Results:** Demographic characteristics were comparable. There was an insignificant difference in among demographic data between the three groups. Systolic and diastolic blood pressures were higher in the phenylephrine-Ph group was higher than that in the control P group, but not higher than that in the the ephedrine-E group. Maternal dysrhythmias were more common in the Ephedrine and Phenylephrine groups than in the P control-group. Vomiting was significantly more common in the ephedrine group E group (P < 0.05). In addition, the mean fifth 5-minute Apgar score of neonates was higher in the Phenylephrine and E ephedrine groups was significantly higher than that in the P control group (P < 0.05). The incidence of neonatal acidosis in Neonates of phenylephrine the Ph group was lower than that in had less acidosis than the other two groups.
Conclusion: Prophylactic infusion of phenylephrine can effectively alleviate spinal anesthesia-related hypotension without causing any major maternal or fetal complications for mother or her fetus.