Comparison of efficacy of two different bolus doses of norepinephrine as prophylactic to prevent post-spinal hypotension during elective caesarean section

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TITLE PAGE

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MANUSCRIPT

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3. Abstract

**Background and aims:** During caesarean section spinal anaesthesia causes central neuraxial blockade which decreases sympathetic tone and SVR resulting in hypotension. Norepinephrine, a potent vasopressor can be used to prevent hypotension. In this study we compared two different bolus doses of norepinephrine to control post spinal hypotension. **Method:** It is an interventional study including 80 participants aged 18 years & above with ASA 2 physical status undergoing elective caesarean section under spinal anaesthesia. Participants were divided into 2 groups. Patients in group A received a bolus dose of 0.1μg/kg norepinephrine bolus while those in group B received 0.15μg/kg norepinephrine. The outcomes variables that were measured were blood pressure, heart rate and Apgar scores. Numerical data were stated in the form of mean ± standard deviation and analysed using t-test & chi square test. P value less than 0.05 was considered significant. **Results:** The mean change in Blood pressure after 3 mins was 113.25 ± 15.825 in group A and 114.93 ± 13.660 in group B and p value was found 0.614 which was not significant. Mean dose of norepinephrine administered in Group A is 6.1575 ± 0.89525 and group B is 9.3063 ± 1.36373 & P values using t test was 0.000 (highly significant). **Conclusion:** Lower doses (0.1μg/kg) of norepinephrine are equally effective to higher doses (0.15μg/kg) in preventing post spinal hypotension without the incidence of reactive hypertension.

**Key words:** Caesarean section, spinal anaesthesia, hypotension, vasopressor, norepinephrine, Apgar score.