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**Comparison between the Effects of Ringer`s Lactate  
and Hydroxyethyl Starch on Pulse Rate and Systolic  
Blood Pressure after Spinal Anesthesia: A  
Randomized Clinical Trial**

**Dr. Bharat Verma**

**Abstract**

**Background:** Hypotension during spinal anesthesia is common and can lead to severe injuries and even death. Administration of crystalloid fluids is advised to prevent occurrence of hypotension; however its effectiveness is still the matter of arguments.

**Objectives:** This study was designed to compare the effects of Ringer`s lactate and hydroxyethyl starch 6% on hemodynamic parameters after spinal anesthesia in patients undergoing orthopaedic surgeries on lower limbs.

**Methods:** This randomized clinical trial was performed in MLB Medical College Jhansi. 75 patients undergoing elective obstetrics and orthopedics surgeries with spinal anesthesia were included in this study. Fitted patients were randomly divided into two equal groups. After entrance to the operation room and before spinal anesthesia, patients' hemodynamic parameters including systolic blood pressure (SBP) were evaluated using monitoring electro-velocimetry set.

**Results:** The baseline values of mentioned variables did not show a significant difference between two groups using t-test ( $P > 0.05$ ). Also SBP after intervention was not significantly different between two groups using t-test ( $P > 0.05$ ).

**Conclusion:** The result of present study on patients undergoing femoral fracture surgeries who received Hetastarch or Ringer`s lactate solutions showed that Hetastarch was not significantly more effective in compensation of hypotension induced by spinal anesthesia.

**Keywords:** Hetastarch, Ringer`s Lactate, Spinal Anesthesia, Hypotension

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