Major Compulsory Revisions:

The authors retrospectively compared adverse events during and after hip fracture surgery in 120 elderly patients with isobaric levobupivacaine and hyperbaric bupivacaine subarachnoid anesthesia. The results showed that incidences of intraoperative hypotension and postoperative congestive heart failure were significantly higher in the group of hyperbaric bupivacaine. The incidence of red blood cell transfusion was higher in the isobaric levobupivacaine group. The authors concluded that isobaric levobupivacaine was safer than hyperbaric bupivacaine for subarachnoid anesthesia for hip fracture surgery in elderly patients.

The present study was retrospective and the methods were not controlled. First, the flaw of this manuscript is missing description of the levels of analgesia by subarachnoid anesthesia. As the authors addressed in “Discussion,” intraoperative hypotension is related to the level of anesthesia, degree of sympathetic blockade. The adequacy of anesthesia for surgery is also related to the level of anesthesia. However, the authors didn’t show the level of anesthesia in each group nor patients with hypotension. The authors speculated that postoperative congestive heart failure would be related to intraoperative hypotension, fluid therapy, use of vasopressors and anemia. However, these factors were not appropriately provided in the present study to support their speculation.

Second, the present study had two factors affecting the results; different baricities and agents, isobaric or hyperbaric, and levobupivacaine or bupivacaine. Therefore, which factor affected the results was not clarified.

Minor Essential Revisions:

P2, L17. Does “at the end of anesthesia” mean “at the end of surgery?”

P2, L18-19. “1.43 mg” and “1.16 mg” should be errors for “1.43 ml” and “1.16 ml,” respectively.

P2, Results. Please provide “P values” for showing statistical significance.

P2, L31. There are double “%.”

P4, L28. What does “at 30 min into surgery” mean, “30 min after anesthesia?” “At the end of anesthesia” should be “at the end of surgery.”
P5, L16. “Our” should be an error for “or.”
P5, L19. “And” should be “with.”
P5, L28-P6, L5. This paragraph should be moved to the top of “Materials and methods.”
P6, L12. “(Fc)”?
P6, L22. Please provide the criteria for red blood cell transfusion.
P7, L3. Please define “solution A” and “solution B.”
P7, L15-21. The levels of sensory and motor block were not provided in “Results.”
P9, Results. Significant figures of the values should be considered throughout the manuscript and the tables, such as “SBP 155.88” should be “SBP 156.”
P9, L5-12. This is confusing description. Please describe the results clearly.
P9, L9. What does “mean intraoperative SBP” mean, “SBP at 30 min after anesthesia?”
P9, L11. What does “-4%” mean?
P9, L13-14. Did SpO2 in the bupivacaine group increase at 30 min after anesthesia? The authors described that the mean SpO2 values decreased from 95.67% to 95.48%.
P11, L5-11. The level of sensory block was not provided in the present study. Therefore, the authors’ speculation is not supported.
P11, L15. The authors didn’t provide the data regarding onset of action in “Results.”
P11, L16-22. The reviewer cannot understand the authors’ explanation regarding higher incidence of blood transfusion in the levobupivacaine group. The levobupivacaine group had lower incidence of hypotension and lower dose of local anesthetic, but the incidence of blood transfusion was higher than the bupivacaine group.
P12, L9-10. While the reviewer didn’t read reference 19, does levobupivacaine cause vasoconstriction when administered in the subarachnoid space?

Level of interest: An article of insufficient interest to warrant publication in a scientific/medical journal

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I am a consultant of Maruishi pharmaceutical company, which sells levobupivacaine.