

# The role of short-term long-acting hydromorphone in acute pain management following open abdominal urologic surgeries

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## BACKGROUND

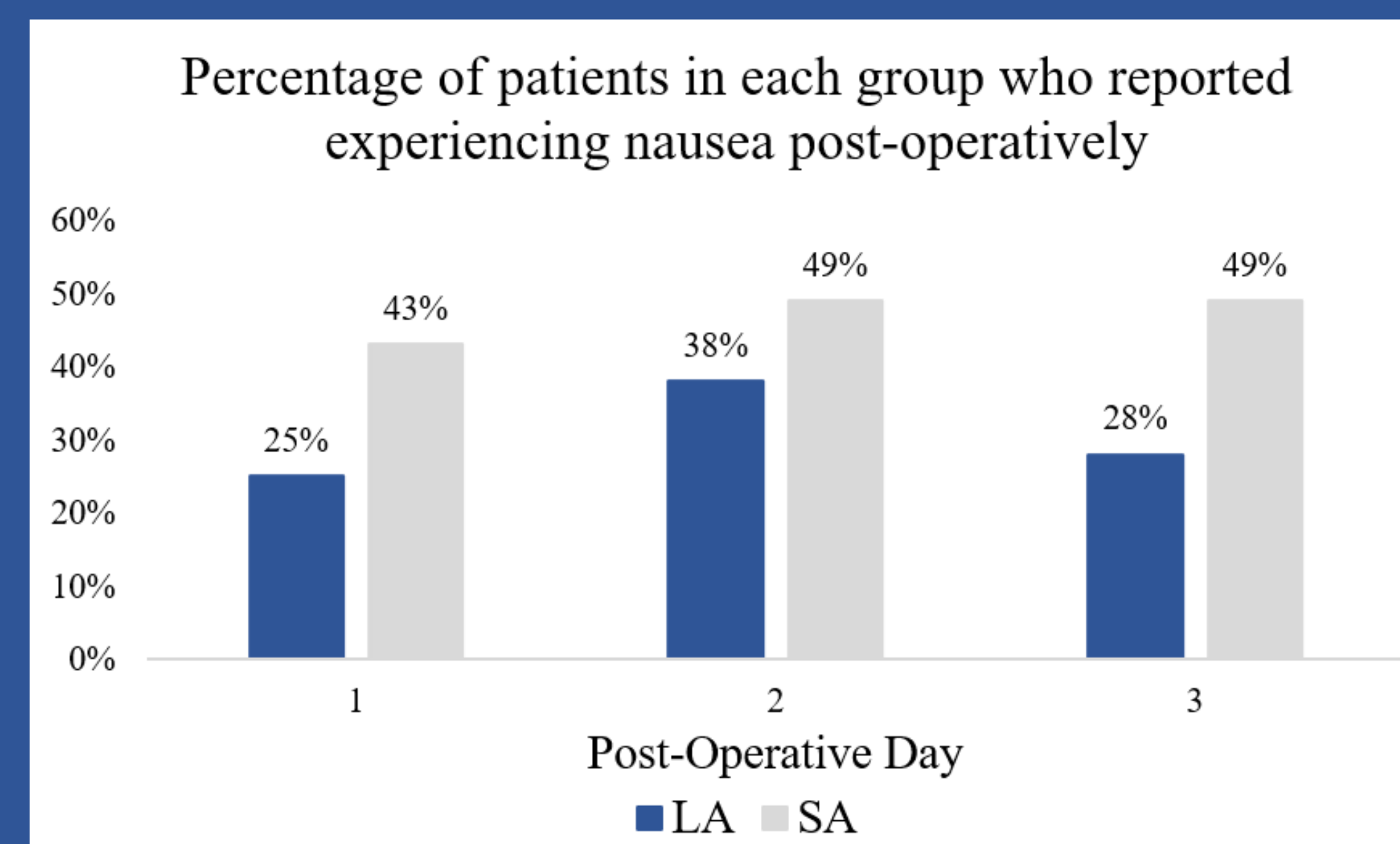
- The use of long-acting opioids has been reduced due to the risk of adverse events and overdose when used for chronic pain. <sup>1, 2</sup>
- Evidence is lacking to support the short-term use of a low dose long-acting opioid for acute pain control in a monitored setting.
- Objective: to evaluate whether low dose, long-acting hydromorphone short term (two days) combined with short-acting hydromorphone as required offers better pain control post-operatively to allow earlier ambulation after major urologic surgeries compared to short-acting opioid alone.

## METHODS

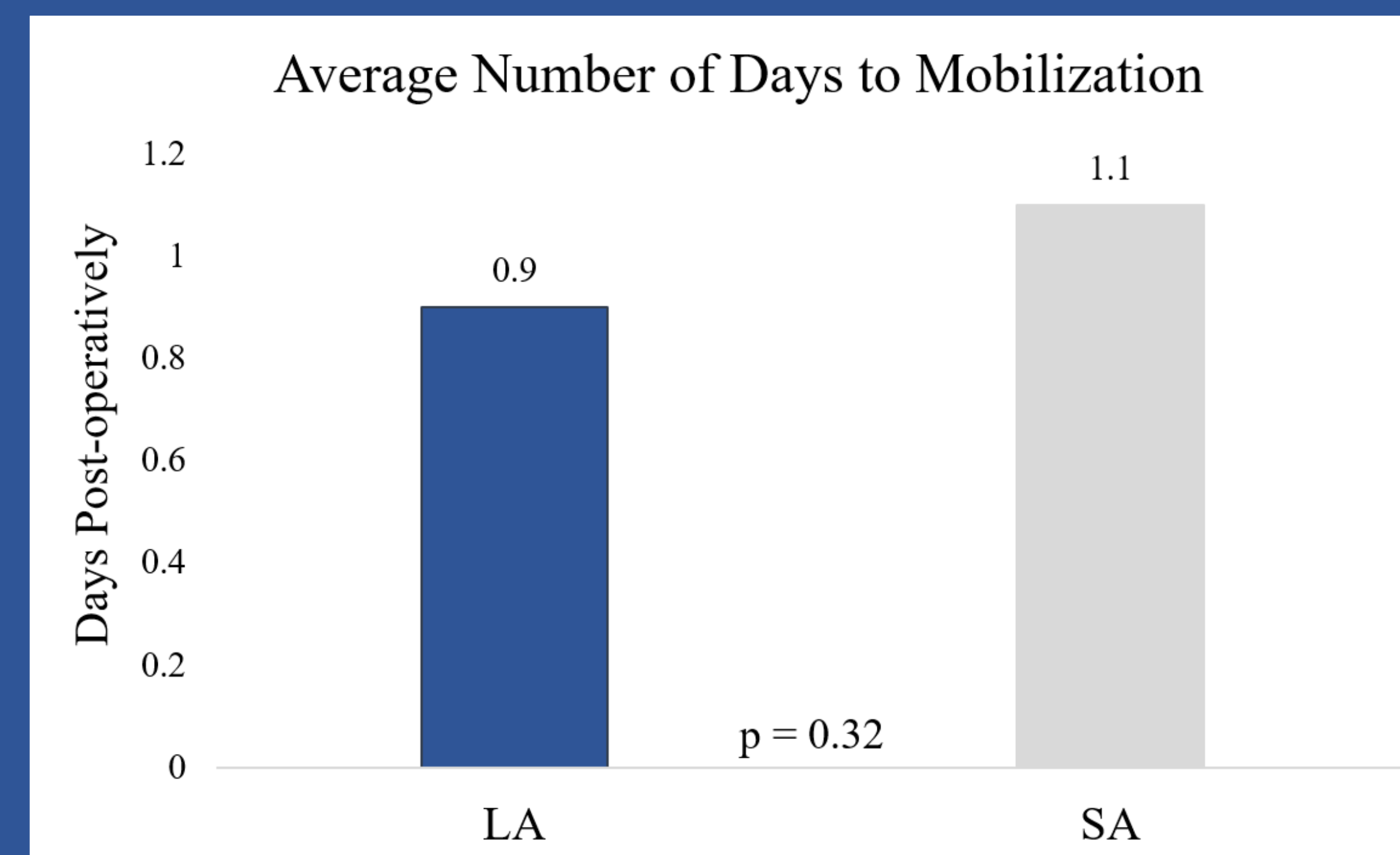
- Randomized, double-blind, controlled trial assessed all adult patients undergoing elective open abdominal urologic surgeries who met the inclusion criteria. Patients were divided into two groups:
  - **LA:** Long-acting hydromorphone on a regular basis for two days with short-acting hydromorphone available on an ‘as required’ basis.
  - **SA:** Short-acting hydromorphone on an ‘as required’ basis only.

## RESULTS

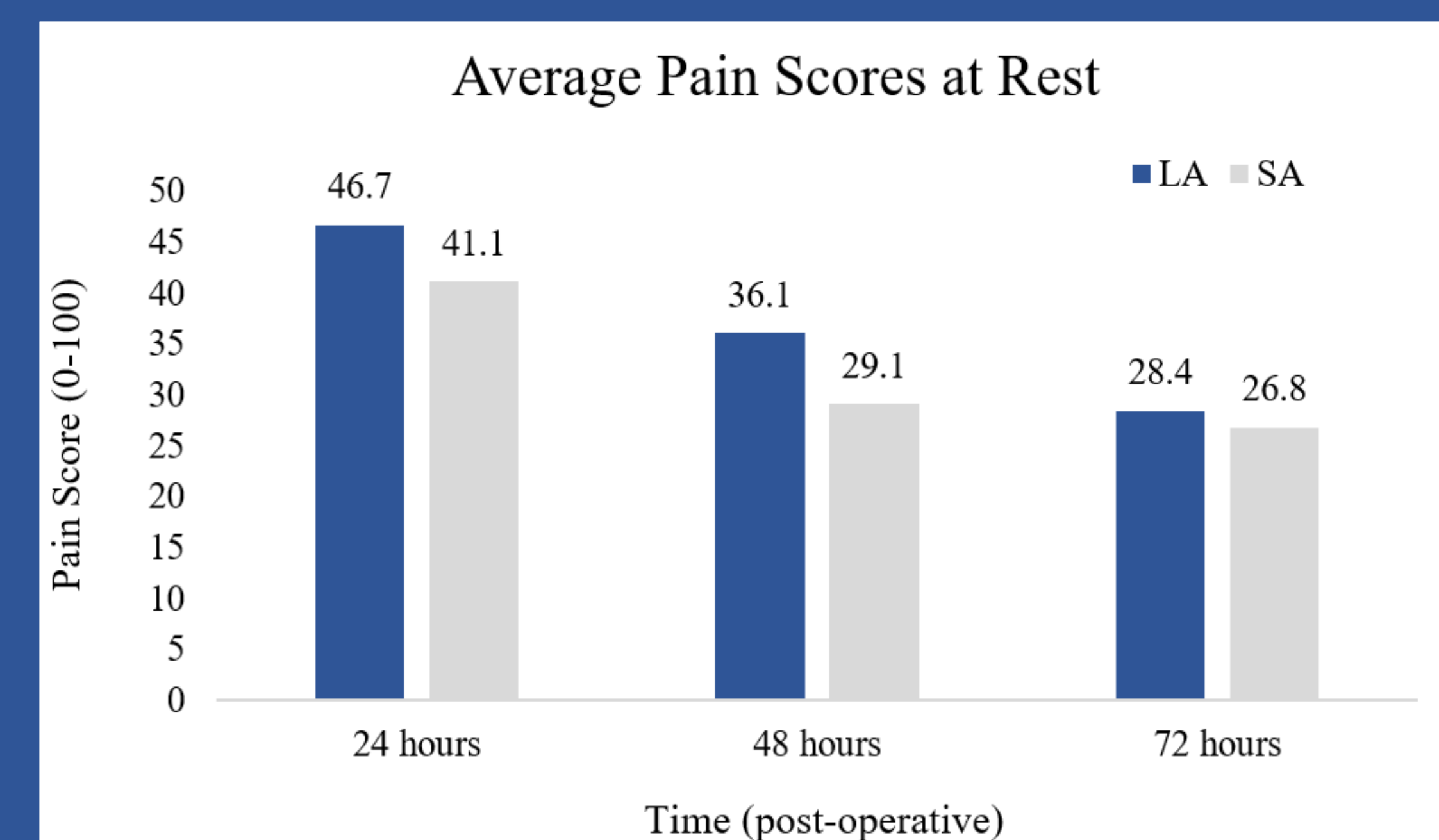
- **No statistically significant difference** in the time to first mobilization, opioid consumption, or pain scores at any time point between the two groups.



- Both groups reported similar levels of satisfaction with their pain control.



- Trends toward **more nausea** on post-operative days one, two and three, as well as more **severe loss of sleep** the first night after surgery in the short-acting group.



## OUTCOMES

- Primary outcome: time to achieve adequate pain relief to get up and walk three steps.
- Secondary outcomes: pain scores in the post anesthesia care unit (PACU) and 24/48/72 hours post-operatively, opioid consumption intraoperatively, in the PACU and 24/48/72 hours post-operatively, nausea, vomiting, loss of sleep, patient satisfaction and other adverse events.

## DISCUSSION

- Patients who received low dose, long-acting hydromorphone **did not mobilize earlier** than those who received short-acting hydromorphone.
- This **refutes the concept of more stable analgesia and less frequent dosing with long-acting opioids** due to sustained plasma levels. <sup>3, 4, 5</sup>
- A larger sample size is warranted.

## REFERENCES

1. Chua et al., 2020; 2. Salkar et al., 2022; 3. Cheville et al., 2001; 4. Lam et al., 2022; 5. Argoff & Silvershein, 2009