

Regional Anesthesia Delays Mobility and Increases Length of Stay in Hip Fracture Patients

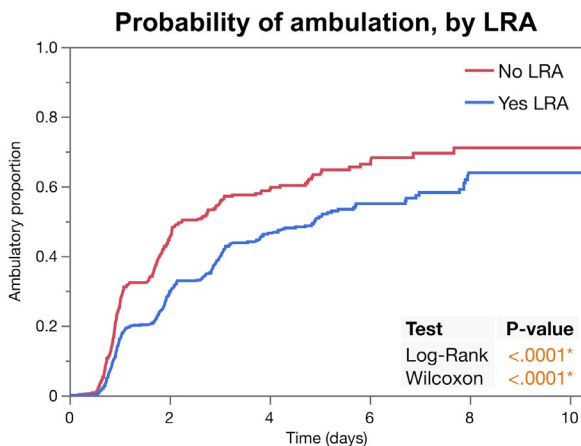
Nicholas James Morriss, BA; David Kerr, MD; Daniel Joseph Cunningham, MD; Billy Insup Kim, BA; Elle Martin Macalpine, BA; Colleen Wixted, BS; Kwabena Adu-Kwarteng, BA; Malcolm DeBaun, MD; Mark Gage, MD
 Duke University Health System, Durham, North Carolina, UNITED STATES

Purpose: Regional anesthesia has been increasingly utilized in the care of geriatric hip fracture patients in order to reduce perioperative opiate use and the need for general anesthesia. However, the associated motor palsy may impair patients’ ability to mobilize effectively following surgery, and subsequently may increase latency to key mobility milestones postoperatively, as well as increase inpatient length of stay (LOS). We hypothesize that regional anesthesia will not impact time to mobilization and inpatient LOS in geriatric hip fracture patients.

Methods: A retrospective review identified 1768 patients who underwent surgery for hip fracture between 2013 and 2018 at a single academic health system. Patients were excluded if <65 years of age, baseline non-ambulatory, restricted weightbearing postoperatively, or concomitant injuries precluding mobilization. For the final cohort of 1052 patients, time to event analyses for discharge and mobility milestones were assessed using univariate Kaplan-Meier and multivariate Cox proportional hazard regression analyses.

Results: Regional anesthesia was associated with delayed postoperative time to out-of-bed (hazard ratio [HR] 1.08 [1.01-1.16], P = 0.024) and ambulation (HR 1.25 [1.15-1.37], P<0.0001), and with increased LOS (HR 1.18 [1.10-1.63], P<0.0001).

Conclusion: While regional anesthesia for geriatric hip fractures may decrease the perioperative use of opiates and general anesthesia, it may also have the detrimental effects of longer hospital stays and delayed time to mobilization. These results highlight the importance of a risk-benefit discussion with patients and health-care teams when considering regional anesthesia and the continued need for non-opioid multimodal analgesia in this population.



The FDA has stated that it is the responsibility of the physician to determine the FDA clearance status of each drug or medical device they wish to use in clinical practice.