

**Factors Influencing Early Postoperative Mobilization in Geriatric Hip Fracture Patients**

*Posatorn Suwanpongsai, MD; Kongkhet Riansuwan, MD; Direk Tantigate, MD*

**Purpose:** Early postoperative mobilization is crucial for improving outcomes in geriatric hip fracture patients, leading to reduced complications, lower mortality rates, and shorter hospital stays. This study explores the various factors affecting postoperative mobility in this population.

**Methods:** A retrospective study was conducted using data from the acute geriatric hip fracture fast track database spanning from January 1, 2018, to October 31, 2022. The study included patients aged 65 or older with proximal femoral fractures, excluding peri-implant or periprosthetic fractures, patients with injuries impeding mobilization, and multiple trauma patients. Multivariable logistic regression analysis was employed to analyze patient demographics, intraoperative, and postoperative variables.

**Results:** Among 233 patients, 60.9% achieved early postoperative ambulation within 48 hours. Univariate analysis identified significant factors, including American Society of Anesthesiologists (ASA) classification grade 1-2 (odds ratio [OR] = 2.043, P = 0.009), absence of preoperative dementia (OR = 2.859, P = 0.008), new mobility score  $\geq 5$  (OR = 2.738, P < 0.001), albumin level  $\geq 3.5$  g/dL (OR = 2.713, P < 0.001), time from injury to surgery  $\leq 3$  days (OR = 1.723, P = 0.065), and spinal anesthesia (OR = 2.538, P = 0.003). Using the Youden Index, the optimal cut-off points were identified as preoperative hemoglobin level  $\geq 1$  g/dL (OR = 1.809, P = 0.035) and first day postoperative hematocrit level  $\geq 29\%$  (OR = 2.244, P = 0.009). Multivariate analysis revealed the independent factors, absence of preoperative dementia (OR = 3.235, P = 0.030), spinal anesthesia (OR = 2.670, P = 0.017), and first day postoperative hematocrit  $\geq 29\%$  (OR = 2.338, P = 0.021) as crucial contributors to early postoperative ambulation.

**Conclusion:** Optimizing postoperative hematocrit levels above 29% and employing spinal anesthesia play crucial roles in enhancing early mobilization among geriatric hip fracture patients. Additionally, early detection and intervention for preoperative dementia contribute to improved outcomes, providing valuable insights for personalized care strategies and refined rehabilitation protocols.