

**Continuous Femoral Nerve Catheters Decrease Opioid-Related Side Effects and Increase Home Disposition Rates Among Geriatric Hip Fracture Patients**

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**Purpose:** The purpose of the study was to evaluate the effect of continuous femoral nerve catheters (CFNCs) for postoperative pain control in geriatric proximal femur fractures compared to standard analgesia (SA) treatment.

**Methods:** We retrospectively identified 265 consecutive geriatric hip fracture patients who underwent surgical treatment at 1 academic Level I trauma center. 149 patients were treated with SA without nerve catheter while 116 patients received an indwelling CFNC. The main outcome measurements included daily average preoperative and postoperative pain scores, daily morphine equivalent consumption, opioid-related side effects, and discharge disposition.

**Results:** CFNC patients reported lower average pain scores preoperatively ( $1.9 \pm 1.7$  for CFNC vs  $4.7 \pm 2$  for SA;  $P < 0.0001$ ), on postoperative day 1 ( $1.5 \pm 1.6$  for CFNC vs  $3 \pm 1.7$  for SA;  $P < 0.0001$ ) and postoperative day 2 ( $1.2 \pm 1.5$  for CFNC vs  $2.6 \pm 2.1$  for SA;  $P < 0.0001$ ). The CFNC group consumed 39% less morphine equivalents on postoperative day 1 ( $4.4 \pm 5.8$  mg for CFNC vs  $7.2 \pm 10.8$  mg for SA;  $P = 0.005$ ) and 50% less morphine equivalent on postoperative day 2 ( $3.4 \pm 4.4$  mg for CFNC vs  $6.8 \pm 13$  mg for SA;  $P = 0.105$ ). CFNC patients had a lower rate of opioid-related side effects compared to SA patients (27.5% for CFNC vs 47% for SA;  $P = 0.001$ ). More CFNC patients were discharged to home with or without health services than SA patients (15% for CFNC vs 6% for SA;  $P = 0.046$ ).

**Conclusion:** CFNCs decreased daily average patient reported pain scores and narcotic consumption while decreasing the rate of opioid-related side effects. CFNC patients were discharged to home more frequently. Based on these data, we recommend routine use of perioperative CFNCs in geriatric hip fracture patients undergoing surgery.