Advantages of Standardized Preoperative Nerve Block versus Conventional Analgesia in Elderly Patients with Hip Fractures

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Purpose: Our objective was to determine the advantages of preoperative nerve block versus conventional analgesia during hospital stays in elderly patients with hip fracture. Additionally, we wanted to compare hospital opioid consumption between patients with nerve block and those with conventional analgesia as well as to determine the risk factors associated with delirium.

Methods: A 2-arm prospective cohort study was carried out with ambispective data collection in patients 65 years or older treated for a fragility fracture of the hip in 2 Level IV hospitals in Bogotá, Colombia from the first months of 2019 and last of 2020.

Results: The total study sample was of 218 patients from which 119 received conventional analgesic management and 99 patients received fascia iliaca nerve block. There was no difference between the use of nerve block and delirium ($P = 0.442$). There was a lower opioid consumption in the nerve block group in comparison to the conventional analgesic group (16.3 mg vs 27.61 mg, respectively, $P = 0.003$), shorter surgery time (81.08 vs 90.84 min, respectively, $P = 0.030$), and shorter in-hospital stay (5.41 vs 6.06 days, respectively, $P = 0.641$). We found an association between urinary tract infection ($P<0.002$), admission to the ICU ($P<0.021$), respiratory failure ($P<0.001$), and greater age ($P<0.010$) with the development of delirium.

Conclusion: The fascia iliaca nerve block improves the outcomes of orthogeriatric management, can be used as an adjuvant analgesic method for pain control, and can positively influence the functionality and future morbidity and mortality of these patients.