PAIN AND PAIN MANAGEMENT WITH FEMORAL NERVE BLOCK FOLLOWING HIP FRACTURE

Effects and experiences: the perspective of older patients and staff

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Akademisk avhandling

som med vederbörligt tillstånd av Rektor vid Umeå universitet för avläggande av medicine doktorsexamen framläggs till offentligt försvar i Aula Biologica, Biologihuset, Umeå Universitet, fredagen den 10 juni, kl. 09:00.
Avhandlingen kommer att förvaras på svenska.

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**Abstract**

**Background:** Pain and the use of opioids are common among patients with hip fracture, opioids can prove a challenge, especially for older people. A preoperative femoral nerve block (FNB) reduces pain and the need for opioids, but studies on FNB often exclude patients with dementia, and there is limited research on whether a FNB reduces the incidence of complications following hip fracture. There is also a lack of research on the experience of pain and pain management among patients with a hip fracture, and of staff’s experiences of providing nursing care for patients who received an FNB.

**Aim:** The aim was to investigate the effect of a preoperative FNB in patients with hip fracture in terms of pain and complications, and, further, to describe experiences of pain and pain management among patients with hip fracture who received FNBs as well as staff’s experiences of treating them.

**Methods:** In a randomized controlled study, patients (≥70 years) with a hip fracture were randomized into having an FNB and opioids if needed (intervention group), or opioids only (control group). Groups were compared regarding preoperative pain (self- and proxy-reported VAS) and use of opioids in paper I (n=266) and pre-and postoperative complications were assessed between groups in paper II (n=236). Papers III and IV were based on individual semi-structured interviews, exploring the experiences of patients (n=23, ≥70 years) with a hip fracture receiving an FNB (paper III), and the experiences of the nurses and assistant nurses (n=19) caring for these patients (paper IV).

**Results:** Patients (I) who received a FNB assessed lower pain scores over a period of 12 hours and required smaller amounts of opioids compared to those who received opioids only. There was an overall high incidence of complications (II) but for the most common complications there was no statistical difference detected between the groups. Patients (III) described how they dealt with pain in their own way, but also how they felt dependent on the staff’s willingness to relieve the pain. They described that the pain treatment could be lifesaving, but that it could also create the feeling of a near-death experience. Staff (IV) described that the FNB setting the agenda when caring for older patients with hip fracture in the preoperative phase, depending on whether the block was successful or not and in that it required timing. But also, that staff faced ethical challenges regarding the FNB.

**Conclusion:** This thesis shows that FNB is a feasible preoperative pain management for patients with a hip fracture, even among those with dementia. Evidence-based guidelines are necessary as a basis for assessing pain and providing pain management, but staff should add an individualized pain management approach. Staff should evaluate every patient and see each patient as a unique individual with different experiences of pain and pain management to successfully relieve pain among patients with a hip fracture.

**Keywords**
femoral nerve block, hip fracture, individualized pain management, nursing care, older, pain, pain management