**PREOPERATIVE SKIN TRACTION in ADULTS with HIP FRACTURE: EVIDENCE-BASED PRACTICE**

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**Introduction:**
Mortality rate in the first year of hip fractures ranges from 12% to 37%. Moreover, many patients are not to return to their homes and rather to stay in hospital or nursing homes due to morbidity related to complications that occur in treatment and rehabilitation process of hip fracture. In order to minimize the mortality and morbidity rates and to promote the treatment outcomes, patients should be dealt with a multidisciplinary approach and should be given evidence based nursing care from admission to discharge.

**Aim:**
The aim of this study, that has the target audience as nurses who deliver care to adults with hip fracture in the preoperative period, was to review and analyze the effects and complications of different interventions in preoperative nursing care of adults with hip fracture.

**Methods:**
We searched by using key words entitled “Hip Fracture Nursing Care, Preoperative Skin Traction” through the The Cochrane Library, Pubmed (MEDLINE), CINAHL, EBSCOhost (from 1993 to 1 December 2013). Our selection criteria were all randomized or quasi-randomized trials comparing either skin traction with no traction or patient care about acute hip fracture prior to surgery.

**Results:**
Thirteen randomized or quasi-randomized trials were accessed during the search. Besides, nine reviews on nursing care were found. In the literature, traction was compared with no traction, where the patient is nursed "free in bed", often with the injured limb being placed on a pillow. Outcomes of the studies that compare traction to no traction can be classified as primary and secondary outcomes. Primary outcomes are pain (Visual Analogue Scale) or analgesia use prior to surgery and incidence of pressure ulcers while secondary outcomes are ease of fracture reduction (subjective assessment by surgeon) or time taken to reduce fracture, incidence of medical complications (thromboembolic complications and ‘other’, as specified in trial reports), incidence of adverse events related to treatment, including sciatic nerve palsy, incidence of fracture healing complications (avascular necrosis and ‘other’ as specified in trial reports) (long term: 6 months or more), mortality (long term: 6 months or more).

In the trials, among the primary outcomes such as pain and analgesics prior to surgery no significant difference was found between traction and no traction groups while Grade I pressure ulcers were more common in traction groups and there was not enough evidence for Grade II and deeper pressure ulcers. As we look at the secondary outcomes such as reduction operation duration, medical complication incidence, adverse event incidence, fracture healing and mortality, no significant difference was found between traction and no traction groups, and considered not to have enough evidence for these outcomes.

**Conclusions and Recommendations:**
“Bedridden Patient Care” and “Activity and Exercise” are the main fields of concepts, theories, principles and practices of nursing. Given this fact, learning evidence based interventions, preparing and implementing nursing care plans, taking precautions to avoid complications and assessing outcomes are responsibilities of nurses in care of patients with hip fracture. From the evidence available, the routine use of traction (either skin or skeletal) prior to surgery for a hip fracture does not appear to have any benefit. Given the increasing lack of evidence for the use of pre-operative traction, the responsibility should now be on clinicians who persist in using pre-operative traction to either stop using it or to use it only in the context of a well-designed randomized controlled trial. Keywords: evidence based practices, hip fracture and preoperative nursing care.

**Nursing interventions that may minimize the possible complications held in nine reviews on preoperative nursing practice can be categorized as:**
- Effective pain management
- Quick preoperative preparation with detailed assessment of chronic diseases and medication to avoid delayed surgery (within 24-36 hours)
- Assessment of pressure ulcer risk and if required, using supportive surfaces that avoid pressure ulcers
- Stopping antiaggregation agents and utilizing low molecular weight heparin for thromboprophylaxis
- Prophylactic antibiotics treatment
- Close monitoring for complications including bleeding, fluid electrolyte imbalance, insufficient nutrition, atelectasis, constipation, urinary tract infection, delirium, ischemia and nerve injury due to tight strapping.