EFFECTIVENESS OF PAIN MANAGEMENT IN PATIENTS WITH MUSCULOSKELETAL TRAUMA

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BACKGROUND AND AIM

- Acute pain following traumatic injury is one of the most frequent reasons why patients are seeking medical care.
- While acute pain is the most frequent complaint in emergency care, its management is often neglected, placing patients at risk of oligoanalgesia.
- Our aim is to investigate how often pain management is provided in the prehospital phase and in the Emergency Department (ED) and how this affects pain relief.

STUDY DESIGN AND POPULATION

- This prospective cohort study (PROTACT) includes 248 adult patients presenting with acute musculoskeletal pain caused by blunt trauma of the extremities to the ED of Medisch Spectrum Twente, Enschede, The Netherlands.
- Data regarding pain and pain management were collected in prehospital and ED-setting using registries and questionnaires.

RESULTS

At ED discharge
- Very severe pain (NRS 9-10)
- Severe pain (NRS 7-8)
- Moderate pain (NRS 5-6)
- Mild pain (NRS 3-4)
- Minimal pain (NRS 1-2)
- No pain (NRS 0)

Pain intensity at ED admission and ED discharge. Mean pain score was NRS 6.5 (SD=2.4) at admission and 5.7 (SD=2.5) at discharge.

Effect of pain management in the ED. Patient who receive no pain management had a mean pain reduction of 0.54. Patient who had both non-and pharmacological pain management (1.42), with only non-pharmacological (0.58) and only pharmacological (1.11) reduction. Patients who received pharmacological pain management at ED had higher pain reduction: 1.33 vs. 0.57 (difference 0.76; 95%CI 0.37-1.13) than patients without medication, also after adjustment for pain at admission. Only one-quarter of patients had a clinical effective (2-points) pain reduction during ED-visit: 39% of those receiving pain medication vs. 18% who did not receive medication.

DISCUSSION

- An insufficient proportion of patients receives pain management and pain relief remains unsatisfactory.
- The importance of pharmacological pain management in ED is reflected in the proportion of patients with clinical pain reduction during ED-visit.
- Effective pain management is important, it leads to earlier mobilization and recovery and may prevent long-term consequences as chronic pain.

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