at activity and the individual expectations should be further focused.

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Paradoxical differences in pain ratings of the same stimulus intensity

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Aims: Stimulus intensity used for assessing temporal summation of pain (TSP) is commonly set at the participants' pain tolerance. Yet pain ratings during TSP rarely reach that initial pain tolerance pain rating. This study aimed to explore the differences between baseline pain tolerance assessed by cuff algometry and subsequent pain ratings of the same stimulus intensity, and the reliability of these ratings over 2 sessions.

Methods: In two sessions, separated by one week, 24 healthy, pain-free males had their pressure pain detection (PDT) and tolerance threshold (PTT) recorded using a staircase inflation paradigm (5 kPa increments, 1sec-ON:4sec-OFF) with a cuff algometry system. The pain intensity was assessed during cuff stimulation using an electronic visual analogue scale (VAS, 0–10 cm). Three different inflation paradigms were then performed, using the PTT level as stimulation intensity, and a 1-s duration for each stimulus: PEAKS: 3 inflations at 0.17 Hz, SLOW: 10 inflations at 0.01 Hz, FAST: 10 inflations at 0.5 Hz). Approximately 5-min was kept between the staircase assessment and the first stimulation paradigm, and between each of the 3 inflation paradigms. The PTT and first inflation VAS rating from each paradigm was extracted.

Results: The VAS rating of PTT pressure was higher in the staircase (VAS: 8.5 ± 2.1 cm) than the first PPT stimulus in any other paradigm (PEAKS: 5.4 ± 2.0; SLOW: 4.6 ± 2.1; FAST: 4.0 ± 2.3, $P < 0.05$). VAS ratings were also lower in each subsequent paradigm (i.e. PEAKS > SLOW > FAST, $P < 0.05$). Intra-class coefficients demonstrated excellent reliability for each paradigm (all ICC > 0.79) between sessions.

Conclusions: PTT, as assessed with the staircase inflation paradigm, was rated more painful during baseline assessment than when the identical stimulus profile (PPT intensity for 1-s) was applied afterwards and this finding is considered reliable.

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Pain assessment and post-operative pain management in orthopedic patients

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Aims: A fast-track based surgical treatment reduces morbidity and hospital stay by providing early mobilization. Sufficient postoperative pain management is mandatory for early mobilization and optimal utilization of rehabilitation measures. Insufficient postoperative pain management is however a widespread problem. Lack of knowledge about pain and pain treatment among health care professionals and general community has been considered as a major potential contributor in insufficient pain management. It has been suggested that severe postoperative pain might imply a potential risk of developing chronic pain. The purpose of this study was to examine this problem in acute and elective surgical patients in department of orthopedic surgery at Bispebjerg Hospital in order to identify obstacles and possibilities for future improvement.

Methods: Questionnaires were developed and distributed to patients consisted of 10 acute admitted and 10 elective orthopedic patients. The patients' pain scores were recorded with a 0–10 NRS scale. The scores were obtained for current pain in rest, current pain in activity, and the highest and lowest pain intensity for the last 24 hours. Data were handled using descriptive statistics.

Results: The goal for sufficient pain treatment was patients with pain score at $\leq$3 NRS at rest and $\leq$5 in activity. For pain at rest 45% of the patients were within the goal range and 55% for the current pain in activity. For the mildest pain experienced in the last 24 h, 75% and for the worst pain experienced 30% of the patients reached the goal.

Conclusions: Corresponding to similar studies, half of the patients received a sufficient pain treatment at the time of examination. The consequences for insufficient pain management would be reduced effect of the physiotherapy, reduced ability to handle every day activity, sleep disturbances, and potential risk of developing chronic pain.

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Combined electric and pressure cuff pain stimuli for assessing conditioning pain modulation (CPM)

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Aims: Traditionally, conditioning pain modulation (CPM) can be assessed by applying a test stimulus (TS) before and after application of a conditioning stimulus (CS), which is normally applied extra-segmental. Currently, no studies have attempted to apply the TS and CS to the same site using different stimuli modalities. The aim of this study was to evaluate electrical TS and cuff pressure CS applied to the same experimental site for studying CPM.

Methods: 20 male volunteers participated in this study, which consisted of stimulations applied by a cuff-algometer (NociTech and Aalborg University, Denmark) and current stimulator (Digitimer DS5, UK), through two Ag/AgCl electrodes (Ambu® Neuroline 700, Denmark). The cuff was wrapped around the lower leg and stimulation electrodes were placed under the cuff and to the same location on the contralateral leg. Electrical TS were applied to the non-dominant leg with or without cuff pressure CS on the dominant (CS1) or the same (non-dominant) leg (CS2, electrode under cuff). The subjects were instructed to rate the electrical evoked pain intensity on a 10-cm continuous visual analog scale (VAS, "0" represented "no pain", and "10" represented "maximal pain"). The pain detection threshold (PDT) was defined as "1" on the VAS scale.