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Editorial comment

Pressure pain algometry – A call for standardisation of methods

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Algometry has been used in both experimental pain research and in clinical research for many years. It has been shown to be useful for the study of regional analgesia [1]. Pressure algometry has been shown to be sensitive for the analgesic effect of opioids [2], corticosteroids [3], and paracetamol [4] in healthy volunteers.

Algometry is also useful in the clinic. Nikolajsen and co-workers found that pressure pain thresholds predicted stump pain and phantom pain after amputation [5].

Pressure pain (algometry) is particularly useful in musculoskeletal pain [6] and bone pain [7] and is diagnostic for fibromyalgia [8]. Pain threshold and tolerance assessed with a specially designed algometer were significantly associated with average measures of clinical pain in fibromyalgia [9], chronic fatigue [9], and rheumatoid arthritis [10].

The nociceptors involved in pressure pain are probably different for short-lasting dynamic pressure and tonic pressure for 120 s [11].

One recurring discussion has been on the choice of outcome: pain threshold versus pain tolerance or pain ratings to painful stimuli? This has been examined in healthy volunteers by Lacourt et al. and is presented in the present issue of the Scandinavian Journal of Pain [12]. The objective of the study was to investigate the reliability (test–retest) and the interrelationship between pressure-pain threshold (PPth), pressure-pain tolerance, and pressure-pain ratings. They conclude that PPth, subjective ratings of moderate intensity suprathreshold stimuli, and subjective ratings of the maximum intensity are distinct aspects of pain responsiveness. They recommend including a measure of each of these three dimensions of pain when assessing pressure pain responsiveness. They also found good test–retest reliability between second and third pressure pain threshold measurement. We should, however, bear in mind that this does not prove such stability over time (from day to day). Last, the authors recommend that when it is desirable to collapse pressure pain threshold on several body points into one mean value, they suggest to average over bilateral body points only, since individual thresholds vary significantly between body sites in the same individual.

Learning from this and previous studies, we might find pressure algometry useful both in future pain research [13] and in clinical evaluation of painful conditions. Equipment and test algorithms should be better standardised. Lacourt and colleagues used an examiner dependent method that only works well in much trained examiners [12]. Computer-controlled equipment that eliminates examiner-bias has been developed [14–16], and this is probably necessary to fully exploit the potential of pressure pain testing.

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