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## Editorial

## Pain and acupuncture: What is it in me that hurts?

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In 1982, I came back to Norway from the UK with a Bachelor in acupuncture. In those early days as an acupuncturist, I was invited as a speaker to a yearly pain conference at the Haukeland University Hospital in Bergen, Norway. This was an interesting conference. The speakers were pain researchers, medical doctors, a philosopher, a family therapist, psychiatrists, psychologists, physiotherapists, a priest and me as an acupuncturist. The leader and the initiative of the conference was a medical doctor who had a special interest in pain. The title of this present paper is taken from one of the philosophers talk years ago. An interesting title, which reflect the subjective feeling of pain, hence philosophers may also contribute to our understanding of pain.<sup>1</sup> Acupuncture was in the 1980 ties within the “world of pain understanding” – in Norway several acupuncturists had their work at hospital pain clinics. The mantra these days were interdisciplinary collaboration, look at different views on how to treat pain, creating a common ground and understanding of patient centered treatments. The mantra is still valid today. However, at least, in Norway acupuncture is not present as a treatment at hospital pain clinics. What happened? Did new knowledge and evidence-based medicine leave “acupuncture alone”? I think it is due time that acupuncture find its place again within pain clinics. Several clinical practice guidelines worldwide, based on contemporary research, are available that recommend acupuncture as one of several treatments for chronic pain.<sup>2</sup>

Pain clinicians today are asking, “Are we doing the wrong things with the chronic pain patients”. Contemporary painkillers “do kill the pain” but from a patient’s perspective, they also inhibit the quality of daily living. However, opioids and OTC drugs are well tolerated for the acute, short-term pain and after surgery. Nevertheless, given to chronic pain patients over time it is well documented to cause many and harmful side effects, including fatigue and for many sleepiness that occurs at the wrong time of the day and not at night.<sup>3,4</sup> A simplified description of the opioids is that they are given since they act like the chemicals our body makes to control pain i.e. the endorphins.<sup>5</sup> They can reduce pain, boost energy levels and it boils down to that it is an important part of feeling good, both physically and mentally. However, when introduced to the body and mind as medications over a long period it “turns the picture upside down”. The tolerance for pain is diminished, reports describes misuse and abuse e.g.: “2018 data shows that every day, 128 people in the United States die after overdosing on opioids. The misuse of and addiction to opioids—including prescription pain relievers, heroin, and synthetic opioids such as fentanyl—is a serious national crisis that affects public health as well as social and economic welfare.”<sup>6</sup>

What can acupuncture offer to chronic pain patients? Some thoughts from my 35 years of clinical experience. Many of the pain patients I have seen do suffer from disturbed sleep. Pain at night wake them up. In an acupuncture theoretical framework this is usually sign of lack of circulation in a local area, or it can reflect a systemic problem e.g. dysregulation of the autonomic nervous system (ANS). Hence, the use of local acupuncture points, which triggers polymodal receptors that have local anti-inflammatory effects,

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further distal points are often added (systemic effect) in clinical practice. From a physiological point of view these pain patients, may have enhanced sympathetic activity that contribute to impaired blood flow and nociceptive muscle pain due to an imbalance between vasoconstriction and vasodilatation. Further, the authors describe that “if the oxygen demands are not sufficiently met, the muscles become ischemic and the local accumulation of metabolites may result in nociceptor activation, which, in turn, can enhance sympathetic outflow.”<sup>6</sup> Hence, and due to sympathetic activation, this may cause muscle pain by mediating the response via different bodily and mental stressors. Once pain has become chronic, additional effects on ANS regulation are to be expected.<sup>7</sup> Is the relaxing effect, which a lot of patients experience after acupuncture due to an effect on the ANS?<sup>8,9</sup> Recently there has been more focus on acupuncture and its possible effect on the central nervous system in general.<sup>10</sup> In terms of circulation, acupuncture may affect this by acting via vasodilative factors such as substance P and CGRP.<sup>11,12</sup> Furthermore, the authors have suggested that the increased blood perfusion induced by acupuncture stimulation might be relevant to the suppression of the sympathetic nerve activity and the vasodilation in local microvascular beds. From a patient’s point of view, this may be reflected in less pain during night, hence better sleep and more energy may occur during the day. Due to these responses from acupuncture treatment, the patients, after several treatments, may start asking, “Is there anything I can do myself e.g. movements and exercises?” These self-care techniques are important strategies for relieving pain and reduce stress when given according to the level of energy in the patient in question.<sup>13</sup> Many patients are feeling energetic after acupuncture,<sup>14</sup> hence accordingly they like to take such actions which they now find useful, inducing engagement and promotes patient empowerment. Furthermore, a deep sleep in pain patients are important both for relaxation purposes and to possible induce a change in the sympathetic activation very often seen in pain patients.<sup>15</sup> Hence acupuncture can play an important role in breaking the vicious circle e.g. if you have pain and stress hormones in your body, you might sleep poorly.<sup>16</sup> National Institute of Clinical Excellence (NICE) are in the process of publishing their new guidance on “Chronic pain: assessment and management” (Expected publication 20 January 2021). This committee made a positive recommendation for acupuncture as a treatment for chronic primary pain. Further, the committee states: “The recommendation is expected to lead to increased use and need for acupuncture services and therefore to have a resource impact. This is due to the number of people with chronic primary pain, [...]”.<sup>17</sup> NICE is hereby presenting recommendations similar to other countries such as the USA, Australia, Canada, New Zealand, Germany, Austria as well as organizations such as the British Pain Society and the European Pain Federation.<sup>18</sup> Hence, I do hope that acupuncture will be a noticeable option in interdisciplinary team approaches for patients with chronic primary pain conditions.

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#### Conflict of interest

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