Central Sensitization Pain Should Be Included in (Central) Neuropathic Pain

To the Editor:

Dr. Nijs et al (1) provided criteria for the classification of central sensitization (CS) pain. Peripheral neuropathic pain and nociceptive pain cause CS in the central nervous system if the 2 kinds of pain persist. Therefore, pure peripheral neuropathic pain and pure nociceptive pain are rare in clinical practice. I believe that CS is one of causes of central neuropathic pain. CS pain may be the center of (central) neuropathic pain. I disagree with a hypothesis that CS pain is differentiated with neuropathic pain. Fibromyalgia will be often diagnosed as CS pain based on the classification of CS pain, because fibromyalgia is a typical CS pain.

First, what is the purpose of differentiating CS pain from neuropathic pain? It is very important that we differentiate neuropathic pain from nociceptive pain because treatment, including medication, of the 2 kinds of pain are completely different. Treatment for neuropathic pain is similar except in cases of complex regional pain syndrome, trigeminal neuralgia, migraine, and cluster headache. In all likelihood, fibromyalgia is a disease (or disorder) with the highest number of evidence-based efficacious treatment options among neuropathic pain. Treatment for fibromyalgia is useful in patients with other neuropathic pain based on evidence and my experience.

Second, differentiation between lesion/disease and dysfunction in the central nervous system makes no sense. Parkinson’s disease and multiple sclerosis were functional diseases in the sixth century. In all likelihood, dysfunction of the central nervous system in patients with CS pain such as fibromyalgia will be lesion in the twenty-fourth century.

Differentiating CS pain from neuropathic pain confuses clinical practice. CS pain should be included in (central) neuropathic pain.

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Reference

In Response

Thank you for giving us the opportunity to respond to the letter by Dr. Katsuhiro Toda discussing the presentation of clinical classification criteria for central sensitization pain (1). The criteria aim to explain how clinicians can differentiate clinically between predominant nociceptive, neuropathic, and central sensitization pain. Dr. Toda challenged the need for such criteria, advocating that central sensitization pain can be classified as neuropathic pain. Here we take the opportunity to explain our perspective in more detail.

According to the International Association for the Study of Pain (IASP), neuropathic pain is defined as pain caused by a primary lesion or disease of the somatosensory nervous system (2). Guidelines have been
published for the classification of neuropathic pain (3, 4), and specify that a lesion or disease of the nervous system (either central or peripheral) is identifiable and that pain is limited to a “neuroanatomically plausible” distribution. The neuropathic pain criteria preclude the use of the term “neuropathic pain” for people with diffuse or widespread pain and nervous system sensitization (i.e. central sensitization pain), as the latter is free of a history of a lesion or disease of the nervous system and is typically characterized by a pain distribution that is not neuroanatomically plausible (1). Whilst we acknowledge the overlap in mechanisms underpinning neuropathic pain and central sensitisation and that neuropathic pain strongly influences central sensitization, the pre-existing definition for neuropathic pain precludes people with a predominant central sensitization pain, with no evidence of injury or disease in the somatosensory system from being classified as having neuropathic pain. In fact, this was a key factor leading us to develop the clinical classification criteria and related clinical algorithm presented (1). For example, a patient with non-specific low back pain cannot be classified as neuropathic pain patient, but can be classified as having predominant central sensitization pain (5,6). The same reasoning accounts for patients with grade II-III whiplash associated disorders or non-neuropathic chronic shoulder pain (7,8).

Further, we do acknowledge the possible overlap between all three pain types (i.e. nociceptive, neuropathic and central sensitization) that is seen in some patients with chronic pain. But even in such “overlapping” situations, identifying the predominant pain type seems warranted to steer treatment.

Dr Toda’s second point about historical changes is important to keep in mind; indeed, perhaps fibromyalgia will be seen as a lesion of the central nervous system in the twenty-fourth century and guidelines will have to be changed at that point. However, the criteria we propose are described according to the current scientific body on knowledge and are, we believe, contemporary.

We thank Dr. Toda for careful reading of our paper and expression of his interest in the newly developed clinical classification criteria, and we hope that this response letter clarifies the need and reasoning behind the criteria. Finally, the proposed criteria are no more than a first step. Hopefully, these criteria will facilitate the acknowledgement and recognition of predominant central sensitization pain, research in this area, and eventually adaptation / improvement of the classification algorithm based on research data.
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