Pain: A multidimensional problem of national priority

The official definition of pain endorsed by the International Association for the Study of Pain states “Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage” [1]. Furthermore, the definition suggests that pain is always subjective: “It is unquestionably a sensation in a part or parts of the body, but it is also always unpleasant and therefore also an emotional experience.” The definition also includes “Activity induced in the nociceptor and nociceptive pathways by a noxious stimulus is not pain, which is always a psychological state, even though we may well appreciate that pain most often has a proximate physical cause.” The definition of pain is important because it emphasizes that pain is a multidimensional problem and thus the ultimate cure for pain must target all underlying pathophysiology and contributing psychosocial factors. The definition also highlights the complexity of pain and difficulty in translating basic pain research findings based on evoked nociceptive behaviors in animals into effective pain treatments for patients.

Persistent pain conditions are common health problems and major reasons for seeking medical care in the general population as well as in the veteran population. However, because of current and past conflicts, the number of military personnel and veterans who sustain injuries to the central and peripheral nervous system (e.g., traumatic brain injury, spinal cord injury [SCI], amputations) has increased. Unfortunately, these injuries often result in persistent pain, significant disability, and problems that cause decreased quality of life [2]. Indeed, chronic pain is a leading cause of disability among veterans and a major contributor to the rising costs of the Department of Veterans Affairs (VA) Health and Disability systems.

Most people who have sustained an SCI develop persistent pain over time [3]. Some of these pains are nociceptive, whereas others are neuropathic and a direct result of the injury [4]. Importantly, most people experience more than one concomitant pain problem. Although the neuropathic pains are particularly therapy-resistant and therefore difficult to cope with, the nociceptive pains, such as shoulder pain, may also cause significant problems and impair an individual’s functional independence by interfering with common daily activities such as wheelchair operation, including transfers. When an individual with SCI has to cope with several simultaneous and persistent pain problems in addition to the physical impairment, it causes a significant increased burden and distress. Therefore, improved pain relief is very important for optimal quality of life after SCI.

The need to make pain management among veterans a national priority was recently emphasized in the timely Veterans’ Mental Health and Other
Care Improvements Act of 2008 (S. 2162). This effort includes the Veterans Pain Care Act, which was passed by Congress and approved by President Bush in mid-October 2008. The Veterans Pain Care Act includes a comprehensive and integrated plan for pain care across the VA healthcare system. This law will add resources to increase research, training, and education on acute and chronic pain within the VA system. Researchers have suggested that the diagnosis, assessment, and management of pain should be integral parts of military healthcare and that interdisciplinary approaches to pain management should be applied for complex pain problems. The success of such approaches depends on a combination of factors, including the implementation of pain research findings into clinical settings. For effective advancement of clinical pain management, several lines of research need to be integrated, including (1) translation of clinically relevant basic research regarding pain mechanisms and novel treatment interventions into the clinical arena, (2) development of valid pain measurement tools that are consistent with basic research methods and can reliably identify underlying pathophysiological and psychosocial mechanisms of pain in each individual patient, and (3) development and testing of cost-effective treatment interventions designed to decrease disability and affective distress and increase quality of life. The ultimate treatment should target each individual’s underlying mechanisms of pain and important psychosocial contributors.

The present single-topic issue concerns several important research areas relevant for both the understanding of pain and the development of future effective treatments for pain associated with SCI. Because the pains that are experienced after an SCI are particularly complex, effective communication between the basic and clinical research communities and clinical care providers is critical for the progress in this area. Undoubtedly, pain after an SCI causes significant suffering among our veterans as well as in the general public. To experience pain in an area where sensibility is impaired or absent is a paradoxical problem that may be difficult to understand for the patient who experiences pain as well as for family and caretakers. I hope that the collection of articles included in this issue will be useful and educational regarding pain after SCI. This issue will also remind the clinical and research communities involved in SCI treatment and study that persistent pain continues to be a significant problem for those with SCI and that additional efforts must be made in this area to accelerate the development of beneficial treatment strategies for SCI-related pain. In addition to research, a standard pain evaluation is also important to promote as part of the routine care of veterans with SCI. Implementing a standard pain evaluation for those with SCI will not only raise awareness of this clinical problem but also increase the knowledge base and facilitate collaboration among facilities and multicenter trials. A basic data set for clinical evaluation of pain after SCI was recently developed by an international expert panel [5], endorsed by several major pain organizations and SCI societies, and is available free of cost from the American Spinal Injury Association (http://www.asia-spinalinjury.org) and the International Spinal Cord Society (http://www.iscos.org.uk) Web sites.

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REFERENCES


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