

Pain

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This special issue of the AAEM under the title 'Pain' is dedicated to both the theoretical and clinical aspects of pain. The idea underlying this initiative is to examine the clinical as well as the theoretical significance of chronic pain in the broad sense of physical, psychological and social illness. The importance of the contribution of several different disciplines then becomes evident, emphasizing the interdisciplinary nature of chronic pain. In this particular special issue, the authors come from the fields of medicine, physiology and psychology, as well as the social sciences.

Physiologically, the sense of pain is an adaptive response of a living organism aiming to limit the exposure to potentially damaging or life-threatening factors. However, long-lasting pain may convert this adaptive response into a chronic, debilitating disease. The mechanisms that underlie the development of chronic pain have been extensively studied during the past few decades, which gave a base for physiological information that identify multiple points of pharmaceutical intervention.

From the anatomical point of view, transmitting pain sensations to the central nervous system (CNS) is via well-defined neuronal pathways. However, functionally, the whole system is very complex when taking into consideration all the neurotransmitters, receptors, ion channels and signaling molecules involved in nociceptive neurotransmission from the distinct parts of the body to the CNS. Moreover, most of the neuronal pathways, except nociception, serve other functions, and also serve network organs located outside the nervous system. Therefore, chronic pain has a diversified pathological background and its clinical picture may be very complex. On the other hand, multiple studies of the mechanisms that underlie the development of chronic pain have established the basis for the physiological information that identify multiple points of possible therapeutical intervention. However, only a limited number of molecules have proved its efficacy in the treatment of chronic pain, and most of these have undesirable side-effects, of which, upper GI tract injury as well as physical and psychical dependence, are of great concern.

The first article in this issue written by Świeboda et al. comprises an overall introduction to pain physiology, pathways and molecules, as well as basic clinical aspects of pain.

Visceral pain has been defined as a pain resulting from the activation of pain receptors localized in mucous membrane, serous membrane, and smooth muscles of hollow organs, and differs significantly from other types of pain in the way in which it originates, and in clinical presentation. It can be misleading as a symptom, producing several problems in diagnostic process. Prystupa et al., in their study, describe current knowledge about the pathogenesis of visceral pain, providing a rationale for the development of new, more effective drugs with a positive benefit/risk ratio

Other clinical aspects of pain have been raised by Papuć. In her article she discusses neurostimulation used in addition to the current medical treatment in different neurological disorders, including Parkinson's disease, dystonia, obsessive-

compulsive disorder, refractory pain, epilepsy and migraine. This article also provides the readers with the knowledge on different neurostimulation techniques for the treatment of chronic neuropathic pain and their effectiveness.

Although pain management in palliative care is based on pharmacological procedures, oncologists have begun to notice that proper dietary intervention may directly and indirectly affect the perception of pain and the quality of life. In their article, Kapała and Lange discuss the importance of properly planned dietary intervention in critically ill patients, and conclude that it can reduce or prevent the increase of malnutrition and cachexia. Moreover, the energy and nutritional value of applied diets and a suitable selection of foods and cooking techniques can also reduce the severity of pain and other somatic symptoms in patients with cancer.

The emotional role of pain is described by Gorczyca et al. The authors also discuss the basic dimensions of physical and psychic pain which results from trauma to the body and/or psyche, as well as provide some methodological information on the evaluation, management and prevention of pain.

In the subsequent article, Mazur et al. discuss the complexities of measuring paediatric pain, review the most well-known pain assessment scales, and emphasizes the importance of family involvement in situations where children are asked to self-report their experiences. Current recommendations for the treatment of pain in children are also critically reviewed.

Dziechciaż et al. in their article present specific aspects of pain in the elderly, with a special emphasis on the significance of proper pain management on the quality of life and functional activity.

It has been estimated that nine out of ten adults, and five out of ten working people, at least once in their lifetime, experience spinal pains, which are the most common causes for appointments with physiotherapists. In their original work, Mazur et al. evaluate the occurrence of spinal pains in people who are professionally active with regards to obeying the rules of work ergonomics.

Practical aspects of pain management are raised by Brzezinski and Wordliczek. Based on their original research, the authors suggest that the administration of dextetoprofen for the management of non-specific low back pain results in a more rapid return to full physical activity, and therefore a more prompt return to work, when compared to, e.g. diclofenac.

In the case study by Papuć et al., the authors present the efficiency of deep brain stimulation (DBS) for the treatment of patient who have experienced ischemic stroke within the posterolateral part of left thalamus, with subsequent severe burning pain localized in the right upper limb.

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