Signs and Symptoms of Sensitisations Across Chronic Pain Condition

Lars Arendt-Nielsen

Aalborg University, Denmark

It is generally accepted that pain diagnosis and therapy should be mechanism based and hence pain assessment should be sufficiently sensitive and advanced to provide such mechanistic information. Translating clinical observations to mechanisms and vice versa are not trivial, and assessment tools to quantify the different phenomena are mandatory. This approach has provided new insight into how reorganization of the pain system is manifested in different chronic pain conditions. Based on such studies common features across different pain patient populations have been identified. An example could be cutaneous allodynia in neuropathic pain assessed by brush, which corresponds to pain evoked by weak muscle pressure in musculoskeletal pain and to pain provoked by a weak colonic distension in visceral pain. Although assessed differently in specific tissues for various pain conditions, the underlying mechanisms share common underlying features. This is of importance for developing new diagnostic tools and for design of clinical trials, as e.g. drugs developed for neuropathic pain may as well have beneficial effects in also patients with sensitisation associated with chronic musculoskeletal pain. Profiling patients utilizing a platform of specific tools for diagnostic purposes is possible, and the current challenge is to translate this into better management. Some of the current available mechanistic human pain biomarkers translate back to animals, providing new possibilities for bridging findings between pre-clinical and clinical studies. Data on the clinical applicability in different chronic pain conditions are increasingly available. In particular, normative values have been established and reliability has been tested. The lecture will address how we can understand the manifestations of across different chronic pain conditions and what implications it may have on management. The opportunities to develop individualized pain management and develop better drugs are in the horizon.