

Abstract:

The aim of this thesis is to determine the use of surface electromyography for functional diagnostic of upper limb in spinal cord injury patients from an occupational therapy perspective. Functional diagnostic is focused on personal activities of daily living (pADL). So far, no one has commented this topic from an occupational therapy perspective in the Czech Republic. The thesis should offer another possibility of objective evaluation.

The theoretical part deals with the description of upper limb, including kinesiology, the types of grasps of quadriplegic patients and the muscles involved in performing personal activities of daily living. There are problem areas of activities of daily living in spinal cord injury patients and their classification. At the end of the theoretical part is described electromyography, interconnection with occupational therapy and use of surface electromyography. There is also described interdisciplinary team.

The practical part consists of six case reports, in which subjects were measured muscle activity during performing personal activities of daily living using surface electromyography. This section presents a diverse use of application of surface electromyography both in terms of graphical imaging and wide age dispersion of patients.

Keywords: surface electromyography, occupational therapy, spinal cord injury, tetraplegia, upper limb