Abstract

Thesis title: The use of therapeutic currents in reflex locomotion

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The aim of the thesis:

The aim of this thesis is to determine, whether the appropriate locomotor pattern is activated during Vojta reflex locomotion - reflexive crawling, when Russian stimulation is used for a stimulation of trigger zones, as it is during manual stimulation of these trigger zones, and if the electrical potential will spread to the distant locations of the body.

Method:

Pilot study of experimentally descriptive character. The essence of this study is the stimulation, of heel zone and zone on medial epicondyle of the femur used in the reflex locomotion manually and by electrical current. Four probands participated in this experiment. During the manual and electrical stimulation activity in selected muscles was scanned by surface electromyography. First, order of activation of selected muscles was evaluated using "standard timing" analysis by MyoResearch XP Master program. Second, the frequency spectrum was evaluated in the same program.

Results:

The experiment shows that the stimulation of trigger zones of Vojta reflex locomotion by stimulating with Russian current can evoke motor response that corresponds to the locomotor pattern of reflexive crawling. Timing of activity of the muscles monitored in the study varied when manual and electrical stimulation was used on the aforementioned trigger zones. It was also found that an electric current, applied to the trigger zones of Vojta reflex locomotion, can spread to distant locations of the body.

Keywords: developmental kinesiology, reflex crawling, trigger zones, Russian stimulation