

This study deals with the effects of botulinum toxin A treatment on pathological muscular hyperactivity in a group of 53 children. The thesis objective was to evaluate the effect of botulinum toxin on muscle tone, range of movement and motor performance of the patient. The theoretical part summarizes the knowledge about this theme, characterizes the term spasticity and the impact of botulinum toxin on abnormal muscular hyperactivity. The practical part evaluates the effect of botulinum toxin in two groups of patients. The first group consists of 14 children, who were tested before and at least one month after botulinum toxin application. Clinical assessment involved range of movement measurement, the evaluation of spasticity with Modified Ashworth scale, Global Assessment of Spasticity Scale (GSA), assessment of motor performance with the use of GMFM test and Functional Independence Measure for children WeeFIM and summarized physical therapeutic methods used in treatment of patients before and after the application. The second group consists of 39 patients who administered the GSA survey forms within a period of one month. The results confirmed positive effect of botulinum toxin treatment on reduction of spasticity, increasing of range of movement and improvement of motor performance of children.