The thesis objective was to validate theoretical knowledge on botulinum toxin effects on spastic muscles in practice. Botulinum toxin effects were evaluated in a group of 34 paediatric patients who attended the outpatient Department of Paediatric Neurology of the Motol University Hospital for this purpose. The patient study always took one month, recording muscular tonicity before and after botulinum toxin application. The results have confirmed botulinum toxin A positive effects on pathological muscular hypertonicity.