

**ASSESSMENT OF STRENGTH ABILITY, STRENGTH-SPEED ABILITIES  
AND FUNCTIONAL STATUS IN PATIENTS AFTER ARTHROSCOPIC  
RECONSTRUCTION OF MASSIVE ROTATOR CUFF DAMAGE  
2 YEARS AFTER THE TREATMENT.**

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**Admission.** Damage of the rotator cuff next to the impingement syndrome is among the most common causes of pain and restriction of mobility within the shoulder complex. They represent also one of the most common indications for surgery of patients with shoulder pains for whom conservative treatment proved to be ineffective.

**Goal.** The aim of the study was to assess the current capabilities of strength, strength-speed abilities and the functional use of the operated limb during activities of daily living.

**Material and methods.** The study was conducted in the period from March to June 2015 among 10 patients operated because of massive damage of the rotator cuff in the Specialist Hospital Holy Family in Rudna Mala. To evaluate the functional status scales below were used: Constant Shoulder Score and Western Ontario Rotator Cuff Index, while the assessment of muscle strength: Biodex System 4 Pro. The statistical analysis of the collected material was performed in the Statistica 10.0 package provided by StatSoft.

**Results.** Based on the results obtained during Biodex Senior System Pro 4 isokinetic test it was demonstrated that there were statistically significant differences between the results for the operated and unoperated limb for parameters PEAK TORQUE, PEAK TQ/BW, TOTAL WORK and AVG. POWER for external rotation and parameters PEAK TORQUE and PEAK TQ/BW for internal rotation. For all the parameters listed above a higher value was recorded for unoperated upper limb. In the Western Ontario Rotator Cuff scale assessing the functional status of the highest value, and therefore the best results are described in the category of physical symptoms, lifestyle and emotions. The lowest values and thus the worst results were recorded in the case of sport activities / recreation and activity / work.

**Conclusions.** The results of the studies showed significant deficits within the parameters of the isokinetic tests (PEAK TORQUE, TOTAL WORK and AVG. POWER) especially for the group of external rotators in reference to the unoperated limb. At incomplete return of functional performance operated limb could be affected by difficult access to comprehensive rehabilitation especially taking the continuity of what people from the study group pay attention to.

**Keywords:** rotator cuff, shoulder, arthroscopic reconstruction.