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ASSESSMENT OF PHYSICAL ACTIVITY AFTER ACL RECONSTRUCTION USING THE LARS METHOD AND AUTOGENOUS GRAFT

Jędrzej PŁOCKI[1], Piotr PELIKAN[2], Agnieszka BEJER[3], Arkadiusz GRANEK[4], Michał MACIEJEWSKI[5], Mirosław PROBACHTA[5]

[1]Chamber of Physioterapy, Medical Faculty, University of information Technology and Management in Rzeszow, Poland, e-mail: michalmac@poczta.fm
[2]Departament of Physiology, Medical University of Silesia in Katowice, Katowice, Poland, e-mail: michalmac@poczta.fm
[3]Institute of Physioterapy, Medical Faculty, University of Rzeszow
[4]Kielce Hospital of. St. Alexander in Kielce, Kielce, Poland, e-mail: michalmac@poczta.fm
[5]Rehabilitation department, Specjalist Hospital Holy Family in Rudna Mala, Poland, Poland, e-mail: michalmac@poczta.fm

Goal: The aim of the study was to assess the level of physical activity of patients after ACL reconstruction using the LARS method and autogenous graft.

Material and methods: The study included 96 patients after ACL reconstruction. The study was performed in the period between 36 and 48 months after the surgery.

The study group consisted of 44 patients operated with the LARS method, the control group consisted of 52 patients who received autografts with St / Gr.

The study protocol included an original questionnaire for collecting personal data and a declared level of activity from pre-injury and currently, Lysholm scale, SF 36v2 questionnaire, assessment of muscle strength in the isokinetic positionBiodex 4. Applied descriptive statistics and the Mann-Whitney and Wilcoxon test were used, the statistical significance level was assumed $p < 0.05$.

Results: There were no statistically significant differences between the groups in the level of activity before the occurrence of the injury ($p = 0.1598$) (groups are comparable due to the patients' initial efficiency) and after the surgery ($p = 0.8462$). There is a visible reduction in physical activity after ACL reconstruction in relation to pre-injury activity in both groups. There is a clear relationship between the self-assessment of current physical activity and the strength of flexors and extensors assessed during isokinetic testing.

Strong correlations occur between the assessment of current physical activity and the Lysholm scale values. The higher the efficiency according to this scale, the better the physical activity (R0.65) ($p = 0.0000$).

There are weak relationships between the quality of life and the current declared physical activity only in the group of patients treated with autogenous transplant.

In the group of autogenic patients, it was noticed that the longer the rehabilitation period, the better the self-assessment of the current efficiency. In the group of patients operated by the LARS method, there is no such relationship.

Conclusion:

1. The level of physical activity in patients after ACL reconstruction decreases independently of the type of implant used.

2. The level of muscle strength affects the declared level of physical activity.

3. The functional scale is a sensitive tool for determining the level of physical activity.

Keywords: LARS, ACL reconstruction, physical activity