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Polish adaptation of Knee Outcome Survey Activities of Daily Living Scale (KOS- ADLS)

SUMMARY

Introduction: As the majority of subjective patient's health scales origin from English spoken countries, usage of those in other countries and communities require performing of cultural and lexical adaptation.

One of such, is Knee Outcome Survey Activieties of Daily Living Scale (KOS-ADL), used for evaluation of overall health of the patient with various dysfunctions of knee including osteoarthritis. It contains 14 questions, concerning the level of dysfunction of knee joint and defining difficulties in daily actions.

Objective: The purpose of the thesis was cross-cultural adaptation of Polish version of KOS-ADL as well as verification of its reproducibility, validity and responsiveness to clinical changes in subjective evaluation of patient's overall health after knee replacement.

Material and methods: The study group consisted of 70 patients (59 females and 11 males, average age of 66 years) qualified for knee replacement procedure. To adapt KOS-ADL scale the following scales and reference tests were applied: KOOS and VAS scales, TUG test, 5xSTS and 10 meters long gait test. The researches were conducted three times: first examination – one to two weeks prior to surgery (general interview, conducting all the tests and surveys), second examination – 6 to 13 days after the first survey (filling the KOS-ADL; test-retest), third examination – 6 months after the surgery (similarly to the first examination).

Results: The surveys showed high repeatability of KOS-ALD results and good internal consistency. There were average and medium correlations found between KOS-ADL and VAS scales in the first examination, TUG tests and 5xSTS. There were dependencies observed between the results obtained in KOS-ADL and KOOS scales. There was ES value calculated in order to define the responsiveness of KOS-ADL. Differences in the results of TUG, 5xSTS and gait tests were not significantly correlated with the improvement of KOS-ADL scale. There were statistically significant correlations between the changes in VAS scale and improvement in KOS-ADL observed. Significant statistical correlations were shown between the changes in KOS-ADL and changes in KOOS.

Conclusions: Polish version of KOS-ADL scale is a repeatable, responsive and valid tool in subjective evaluation of health of patients undergoing knee replacement surgery.