Background: There is strong evidence that exercise therapy is effective in reducing pain and activity limitations in knee osteoarthritis (OA), but effect sizes are low to moderate. Stratified exercise therapy tailored to clinically relevant subgroups of patients is expected to optimise treatment effects in a cost-effective manner.

Objectives: This study aimed to explore the feasibility of a newly developed model of stratified exercise therapy in primary care.

Methods: A mixed-method design was used, consisting of an uncontrolled pre-test-posttest design and a process evaluation. Eligible patients visiting a participating primary care physical therapist (PT) were included. Based on our model, patients were assigned to one of the following subgroups: high muscle strength subgroup, obesity subgroup or depression subgroup, and received subgroup-specific, protocolised, 4-month exercise therapy. Feasibility of stratified exercise therapy according to this model was evaluated by a process evaluation (process documentation, semi-structured interviews and focus group meeting) and outcome (physical functioning (KOOS-ADL) and knee pain (NRS), assessed at baseline and 4 months follow-up).

Results: We included 50 patients, of which 3 patients dropped out. The process evaluation supports that our model is feasible for patients and PTs, with some adaptations for further optimisation. We found clinically relevant improvements on physical functioning (p<0.001; 20%) and knee pain (p<0.001; 37%) for the total group, PTs provided on average 10 sessions, ranging from 2 to 24. The average number of sessions was 6 for the ‘high muscle strength subgroup’, 12 for the ‘low muscle strength subgroup’, 13 for the ‘obesity subgroup’ and 16 for the ‘depression subgroup’.

Conclusions: Our model of stratified exercise therapy is feasible in primary care. Minor adaptations could further optimise the feasibility. Future research should determine (the)cost-effectiveness of this model, compared to usual, non-stratified exercise therapy.

Disclosure of Interest: None declared


THU0717-HPR IMPAIRED MUSCLE FUNCTION AND SHOULDER-ARM MOVEMENT IN PATIENTS WITH SYSTEMIC SCLEROSIS

H. Peterson1, C. Bostrom1, F. Bringby1, R. Walle-Hansen2, L. Jacobsen3, E. Svenningsen4, A. Nordin4, H. Alexanderson1, 1Department of Neurobiology, Care Sciences and Society, Karolinska Institutet, Huddinge, Sweden; 2Oslo University Hospital, Oslo, Norway; 3Internal Medicine, Lund University Hospital, Lund, 4Department of Medicine, Karolinska Institutet, Stockholm, Sweden

Background: A few studies report limitations in upper and lower extremity mobility and muscle function in patients with systemic sclerosis (SSc). Little is known about what extent skin involvement (lcSSc/dcSSc) and lung function (no-mild vs moderate-endstage lung disease) influence active range of motion (AROM) in the shoulder-arm muscles and functional muscle function in patients with SSc.

Objectives: We aim to examine shoulder-arm AROM, shoulder and hip muscle endurance as well as lower extremity muscle function in patients with SSc in comparison with reference values and also to explore possible differences in function depending on lung function and skin involvement.

Methods: 205 patients, fulfilling the EUSTAR/ACR criteria for SSc, were recruited from the Karolinska University Hospital. AROM in shoulder-arms (Functional Shoulder Assessment, FSA), muscle endurance in shoulder and hip flexion (Functional Index 2, FI-2), and muscle function in the lower extremities (Timed-Stands Test, TST) were assessed and compared with reference values. Patients were classified as to lung disease severity using sub-items from the SSc disease severity score for lung involvement. Patients with a score of 0–1 were classified as no-mild lung disease and a score of 2–4 as having moderate-endstage lung disease.

Results: 25 patients, fulfilling the EUSTAR/ACR criteria for SSc, were recruited from the Karolinska University Hospital. AROM in shoulder-arms (Functional Shoulder Assessment, FSA), muscle endurance in shoulder and hip flexion (Functional Index 2, FI-2), and muscle function in the lower extremities (Timed-Stands Test, TST) were assessed and compared with reference values. Patients were classified as to lung disease severity using sub-items from the SSc disease severity score for lung involvement. Patients with a score of 0–1 were classified as no-mild lung disease and a score of 2–4 as having moderate-endstage lung disease.

Results: SSc-patients had overall more reduced muscle endurance (FI-2,2% of predicted) in shoulders 53(27–100) and hips 40(23–90) when compared with reference values, 100(100–100) and 100(72–100) (p<0.001) and patients with moderate-endstage lung disease were more impaired, 39(21–71) and 35(20–70) than no-mild, 57(33–99) and 48(28–100) (p<0.05). No differences were found between dcSSC/lcSSC. All patients, regardless of subgrouping, had lower muscle strength when measured with TST, 21(17–29) seconds, when compared to reference values, 17(15–18) (p<0.001). The FSA-scores was overall lower on both right, 22(20–24) and left, 23(20–24) compared with reference values 23(22–24) and 23(22–24) (p<0.05), especially in patients aged 60 years or more. dcSSC-patients had lower FSA-score than lcSSC-patients (p<0.05). No differences were found between patients with no-mild and moderate-endstage lung disease.