

Hand (DASH) questionnaire and QuickDASH in people with rheumatoid arthritis *BMC Musculoskeletal Disorders* 2018; 19:118

- [3] - Lima VP, Velloso M, Almeida FD, Carmona B, Ribeiro-Samora GA, Ferreira TJ. Test-retest reliability of the unsupported upperlimb exercise test (UULEX) and 6-min peg board ring test (6PBRT) in healthy adult individuals. *Physiotherapy Theory and Practice* 2018; 34, 10:806812
- [4] - Takahashi T, Jenkins SC, Strauss GR, Watson CP, Lake FR. A New Unsupported Upper Limb Exercise Test for Patients With Chronic Obstructive Pulmonary Disease. *Journal of Cardiopulmonary Rehabilitation* 2003;23:430-437.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.3919

AB1384-HPR THE RELATIONSHIP BETWEEN QUALITY OF LIFE, PHYSICAL ACTIVITY LEVEL AND MENSTRUAL PAIN IN TURKISH WOMEN

Gamze Nalan Cinar, Serap Özgül. Hacettepe University, Faculty of Health Sciences, Department of Physiotherapy and Rehabilitation, Ankara, Turkey

Background: Dysmenorrhea, defined as menstrual pain, is one of the common chronic pelvic pain problems associated with musculoskeletal symptoms. ¹ Dysmenorrhea is considered as a lower abdominal or pelvic pain appears just before and/or during menstruation and lasts about 2448 hours. ² It is a common condition with prevalence rates between 50% and 91% in women. The daily life of women with menstrual pain can be adversely affected by pain and pain accompanying symptoms. ³ It is seen that these effects are mostly on the quality of life (QoL) of individuals. In addition, physical activity of individuals may be restricted due to menstrual pain. ⁴

Objectives: The aim of this study was to determine the relationship between quality of life, physical activity level and the severity of menstrual pain in Turkish women.

Methods: 336 female cases aged over 18 years and with menstrual pain complaint in the majority of menstrual cycles were included in the present study. Menstrual pain severity was assessed by 0-10 point Visual Analogue Scale. ⁵ Physical activity level was assessed by the "International Physical Activity Questionnaire-Short Form" and the score was expressed in Metabolic Equivalent Task minutes per week. Total score of the short form included walking, moderate level activity and duration (minutes) and frequency (days) of sufficiently active. The quality of life was assessed by the "Nottingham Health Profile". It consists of six parts: pain, physical activity, energy, sleep, social isolation and emotional reaction. The maximum score on any section is 100. The higher the score on any section the greater the number and severity of perceived problems in that area. Normality testing was performed on all data. Spearman's correlation was performed to identify correlation between menstrual pain score and other measures.

Results: The average age and body mass index of 336 participants were 223 years and 21,42,8 kg/m², respectively. There was a significant correlation between quality of life and menstrual pain severity ($r=0.350$; $p:0.006$). There was no significant correlation between physical activity level and menstrual pain severity ($p>0.05$).

Conclusion: Based on the results of the present study, quality of life seems to be related with menstrual pain. On the other hand, no relationship was identified between the physical activity level and menstrual pain. In order to determine the exact relationship, further studies with larger samples and with more varied levels of physical activity are needed.

REFERENCES

- [1] Kaya, S., Hermans, L., Willems, T., Roussel, N., & Meeus, M. (2013). Central sensitization in urogynecological chronic pelvic pain: a systematic literature review. *Pain Physician*, 16(4), 291-308.
- [2] Orhan, C., elenay, Ş. T., Demirtrk, F., zgl, S., zelpasaci, E., & Akbayrak, T. (2018). Effects of menstrual pain on the academic performance and participation in sports and social activities in Turkish university students with primary dysmenorrhea: A case control study. *Journal of Obstetrics and Gynaecology Research*, 44(11), 2101-2109.
- [3] Hillen, T. I., Grbavac, S. L., Johnston, P. J., Stratton, J. A., & Keogh, J. M. (1999). Primary dysmenorrhea in young Western Australian women: prevalence, impact, and knowledge of treatment. *Journal of adolescent health*, 25(1), 40-45.
- [4] zgl S, zelpasaci E, Orhan C, Baran E, Beksa MS, Akbayrak T. Short-term effects of connective tissue manipulation in women with primary dysmenorrhea: A randomized controlled trial. *Complementary Therapies in Clinical Practice*. 2018;33:1-6.

- [5] Wong C, Lai K, Tse H. Effects of SP6 acupressure on pain and menstrual distress in young women with dysmenorrhea. *Complementary Therapies in Clinical Practice*. 2010;16(2):64-9.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.6958

AB1385-HPR TRUNK STRENGTH AND SPINAL MOBILITY IN SPONDYLOARTHRITIS PATIENTS

Sophie De Mits^{1,2}, Liselotte Deroo^{1,3}, Ann-Sophie De Craemer^{1,3}, Thomas Renson^{1,3}, Tine Willems², Lieven Danneels², Philippe Carron^{1,3}, Filip van den Bosch^{1,3}, Dirk Elewaut^{1,3}. ¹Ghent University Hospital, Rheumatology, Ghent, Belgium; ²Ghent University, Rehabilitation Sciences, Ghent, Belgium; ³Ghent University, VIB Inflammation Research Center, Ghent, Belgium

Background: Spondyloarthritis (SpA) can seriously affect spinal mobility and trunk strength. Even though exercise therapy is considered one of the keystones of non-pharmacological treatment¹, guidelines on exercise programs remain vague due to a lack of objective measurements of physical parameters such as trunk mobility and strength. Data on these parameters are scarce for both axial and peripheral SpA-patients (axSpA and perSpA pts).

Objectives: The aim of this study was to measure trunk strength and spinal mobility in SpA-pts and compare these parameters to healthy subjects matched for gender and age and to determine differences between the pts when grouped based on symptom duration and on presence of radiographic sacroiliitis.

Methods: SpA-pts of the Be-Giant cohort were consecutively asked to participate in the study. After informed consent, BASDAI, BASFI and BASMI were evaluated. To measure trunk and cervical strength, pts performed 2 repetitions of a maximal isometric contraction for flexion, extension, lateral flexion and rotation on the David Back devices (DBD) after measuring the spinal mobility in these directions. The maximum value of the 2 repetitions was kept for further analysis. For assessments of lateral flexion and rotation, measured with the DBD, the mean was calculated for right and left measurements. Spinal mobility and trunk strength were compared with a healthy reference population, matched for gender and age by means of Wilcoxon signed-rank tests. When comparing the per-SpA with the r-axSpA and the nr-axSpA, a Kruskal Wallis test was used. A Mann-Whitney U test was used to check for differences between groups based on symptom duration.

Results: Thirty-one SpA-pts participated of which 18 were male (58%). Twenty-four (77%) were classified as axSpA and 7 (23%) as perSpA. Six (19%) of the axial pts had radiographic sacroiliitis and 18 (58%) were non-radiographic. Median time since diagnosis was 5 years and median symptom duration was 7.8 year. Mean age of the pts was 41 years (range: 21-58 years) and their BMI was on average 24 (range: 17-33). Averages for BASDAI, BASFI and BASMI were 2.6 (range 0.0-6.0), 1.7 (range 0-6.8) and 0.9 (range 0.6-4.4) respectively.

SpA-pts showed decreased mobility for cervical flexion ($p<0.001$), extension ($p<0.001$) and rotation ($p<0.001$) and trunk rotation ($p=0.001$) compared to the healthy population. Cervical and trunk muscle strength was significantly decreased in SpA-pts in all directions compared to the reference population (flexion: $p=0.02$, other directions: $p<0.001$).

When comparing mobility and strength based on groups by radiographic axial or peripheral involvement, no significant differences could be detected.

When grouped based on symptom duration, the pts with longer standing symptoms (>7.8 year) show a significant reduced mobility for cervical extension ($p=0.004$) and rotation (0.049) and lumbar rotation ($p=0.033$) and a trend toward significance for lumbar extension ($p=0.066$) compared to those with shorter symptom duration (<7.8 year). For strength no significant differences could be demonstrated between the groups.

Conclusion: Results of this study showed that SpA-pts have less mobility and decreased strength when compared with healthy gender- and age-matched controls.

When comparing within the patient group, based on radiographic involvement, there were no differences neither for mobility or strength. Only discrete differences were found for mobility and no differences for strength when grouped based on symptom duration.

Therefore, rehabilitation of all SpA-pts should focus not only on mobility but should include trunk strengthening exercises as well.

REFERENCES

- [1] van der Heijde D. et al. 2016 *Ann Rheum Dis* 2017;76:978-991