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AB1433-HPR IMPROVING NURSING CARE IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Systematic Lupus Erythematosus (SLE) is a systemic inflammatory autoimmune disease with a heterogeneous presentation in which almost every organ can be affected[1]. SLE patients experience a lower health-related quality of life, due to variation of disease severity over time, arthritis, arthralgia, skin abnormalities, myalgia and general fatigue[2]. The treatment and support of patients with SLE is carried out by a multidisciplinary team, composed of rheumatologists, clinical immunologists, nurse practitioners and rheumatology nurses. Although nurses have a major task concerning providing information, support, and education in SLE care[3], little is known about how patients experience nursing care and what needs and expectations they have.
Objectives: To investigate the patients' needs for nursing support in order to optimise and standardise nursing care in a SLE clinical pathway.
Methods: To identify specific factors regarding nursing care for SLE patients, a literature search was performed. Subsequently, semi-structured interviews were held among patients with SLE from the department Rheumatology and Clinical Immunology of the University Medical Centre Utrecht (tertiary care referral centre with approx. 300 SLE pts/year). The interviews focused on patients' needs, quality of life and nursing care. The questions regarding quality of life were partially derived of the SLE QoL Questionnaire[4] and focused on; daily-, social- or occupational activities, symptoms, medical treatment, and negative emotions. Interviews were recorded, transcribed and analysed with thematic analysis by the researchers and patient partners.
Results: Several tools to explore individual needs among patients with SLE, such as the Dutch version of the Educational Needs Assessment Tool (D-ENAT), were identified[5]. Eight SLE patients were interviewed (female n=6, average age 37.5 years). All were using a DMARD and/or biological. Patients indicated a need for help with problems in daily life, information regarding SLE, peer support, and psychosocial help. Pain and fatigue were the most commonly reported symptoms. Most patients saw their nurse on an irregular basis. They appreciated the accessibility, accuracy, clarity, and patience of nurses.
Conclusions: There is a need for individualised nursing support in dealing with SLE. To assess individual needs among patients, a needs assessment tool could be used. Further research on the usefulness and effectiveness of a needs assessment tool in daily clinical practice is needed.

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AB1434-HPR EFFECTS OF CORE STABILITY EXERCISES ON GRIP STRENGTH AND MANUAL DEXTERITY IN PATIENTS WITH CHRONIC NECK PAIN

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Background: It is known that chronic neck pain causes sensorimotor disturbances. A reduction occurs in upper extremity functions due to pain and sensorimotor disturbances in chronic neck pain patients. Core stability exercises were thought to be effective in order to improve stability and muscular strength. However, there is insufficient information on whether core stability training improve grip strength and/or manual dexterity in chronic neck pain patients.
Objectives: The aim of this study was to investigate the effect of core stability exercises on grip strength and manual dexterity in patients with chronic neck pain.
Methods: Thirtysix patients with chronic neck pain were enrolled. Grip strength and manual dexterity were evaluated by hand held dynamometer and Nine Hole Peg Test, respectively. Patients were randomly divided into supervised core stability exercise and home exercise group. Patients underwent twelve-week exercise training. All assessments were repeated at the 12th week.
Results: Grip strength and manual dexterity were significantly increased in both groups ($p<0.05$). While both treatment methods had positive effects on grip strength and manual dexterity, core stability exercises were found to be more effective than home exercises to improve grip strength ($p<0.05$) and manual dexterity ($p=0.003$ for right side, $p=0.008$ for left side).
Conclusions: Core stability exercises were more effective than home exercises to improve manual dexterity and grip strength. Core stability training should be added to rehabilitation approaches in order to enhance upper extremity functions in patients with chronic neck pain.

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AB1435-HPR EFFECTS OF FLAT CUSHIONING INSOLE ON GAIT PARAMETERS OF INDIVIDUALS WITH CHRONIC IDIOPATHIC NECK PAIN

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Background: Shock waves caused by ground reaction force dissipate through the body during walking, which brings about dynamic loading on bones and soft tissues. It was showed that individuals with neck pain walk with a stiffer spine due to protective movement strategy against pain. Degenerative changes, pain and increased stiffness decrease the shock absorption capacity of the spine and cause an increase in dynamic loading affecting the spine. It was known that chronic idiopathic neck pain (CINP) causes alternations in gait parameters, but it is still unclear if using flat cushioning insole affects gait parameters in individuals with CINP.
Objectives: The aim of the study was to investigate the effects of flat cushioning insole on neck pain during walking and gait parameters in individuals with CINP.
Methods: Twenty-one individuals with CINP (15 female – 6 male, mean age: 35,67±12,64) and 21 healthy controls (15 female – 6 male, mean age: 35,33±12,51) recruited into this study. Assessment of gait

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parameters and pain were carried out in two sessions, standard shoe only and standard shoe with flat cushioning. In both sessions, all participants performed the 10-metre walking test in two walking conditions: normal walking (PW), walking at maximum speed (MAXW). The order of sessions and walking conditions were randomised. Plantar pressure parameters were assessed using pressure sensitive insoles and spatiotemporal parameters were assessed using video analysis method involving slow motion camera (120fps). Pain severity was assessed using Visual Analogue Scale at the beginning of both sessions and immediately following the end of the walking conditions in individuals with CINP. Paired sample t-test was used to determine the effects of flat cushioning insole on gait parameters for both groups and on neck pain for the only neck pain group.

Results: Our findings indicated that the flat cushioning insole results in a decrease in the maximum force, peak pressure, force-time integral, pressure-time integral and an increase in the contact area in both groups ($p<0.05$). In individuals with CINP, flat cushioning insole increased walking speed and step length in both walking conditions ($p<0.05$), however, it had no impact on cadence ($p>0.05$). Flat cushioning insole reduced the severity of neck pain during MAXW ($p<0.05$), but there was no difference in neck pain at beginning of both sessions and during PW conditions ($p>0.05$). In healthy individuals, no difference was found in spatiotemporal gait parameters between two sessions ($p>0.05$).

Conclusions: The study suggested that the flat cushioning insole reduces neck pain severity during walking and has positive effects on gait parameters in individuals with CINP. Flat cushioning insole may be used to decrease neck pain during walking and improve spatiotemporal gait parameters in individuals with CINP.

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AB1436-HPR COMPARISON OF PHYSIOTHERAPY GAINS OF THE PATIENTS WITH AND WITHOUT OSTEOPENIA IN DISTAL RADIUS FRACTURES

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Background: It is known that osteopenia was correlated with severity of forearm fractures.[1] Since there is an increased risk of long-term impairment due to the involvement of wrist joint after distal radius fractures, physiotherapy is an integral component of the complete concept for the treatment.[2, 3] However, there are no recommendations supported by studies regarding which patients might possibly benefit more or less from physiotherapy.[4]

Objectives: The aim of this study was to compare physiotherapy gains of the patients with and without osteopenia in distal radius fractures.

Methods: 31 patients (13 with normal bone quality, 18 osteopenic) surgically treated with volar plating after distal radius fracture were included. Bone mineral density (BMD) was assessed by using Dual-energy X-ray absorptiometry (DEXA). A BMD T-Spine value higher than −1 were considered as normal bone quality and the value between −1 and −2.5 were considered as osteopenia. A physiotherapy program, beginning at first day postoperatively, was applied for all patients, twice a week, through 12 weeks. Wrist and forearm range of motions (wrist flexion, wrist extension, ulnar deviation, radial deviation, forearm supination, forearm pronation), severity of pain, oedema and grip strength were assessed at 3rd week and 12th week postoperatively after ending of physiotherapy program. Physiotherapy gains of patients with normal bone quality (group 1, n=13) and patients with osteopenia (group 2, n=18) were compared.

Results: Median (min-max) BMD-T spine value was −0.3 (−0.7–1.0) for group 1 and −1.75 (−1.3 – −2.3) for group 2. At baseline, there were no statistically significant differences between groups in terms of evaluated parameters ($p>0.05$). In-group analyses showed that all evaluated parameters except forearm pronation were significantly improved in both groups ($p<0.05$). Changes of the measurements in both groups were similar and no significant differences were found in between-group analyses ($p>0.05$).

Conclusions: Physiotherapy gains of osteopenic patients with distal radius fractures were similar to patients with normal bone quality after 12 week treatment program. Wrist and forearm range of motions, severity of pain, oedema and grip strength of osteopenic patients can be improved like that of patients with normal bone quality after distal radius fracture by implementing physiotherapy program.

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AB1437-HPR THE EFFECTS OF SHORT FOOT EXERCISE ON PAIN, KNEE AND FOOT BIOMECHANICS IN PATIENTS WITH PATELLOFEMORAL PAIN

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Background: It was well known that patellofemoral pain (PFP) has multifactorial aetiology. Increased navicular drop measures and especially more pronated foot posture in stance phase have been reported as distal factors.[1,2] Foot orthosis are recommended as distal interventions but remained passive.[3] For this reason, short foot exercise (SFE),[4] as an active approach, may be of significant benefit in patients with PFP.

Objectives: The aim of this study was to investigate the effects of SFE on pain, knee and foot biomechanics in patients with PFP.

Methods: Twenty-two patients with PFP, mean age was 40.91±10.73, included in this study. They were randomly divided into two groups. The first group (KHE) was followed under the exercise program including knee and hip exercises, and the second group (SFE) was followed under SFE in addition to the same exercise program 2 days per a week for 6 weeks. At the beginning and the end of the study, for pain at walking, sitting, squatting, climbing stairs Visual Analogue Scale (VAS) and Kujala Patellofemoral Symptom Scale (KPSS); for knee and foot biomechanics measurement of Q angle, Navicular Drop Test (NDT), Calcaneo-tibial angle (CTA) and Foot Posture Index (FPI) were performed.

Results: As a result of this study, it was found that all parameters were improved in both groups, whereas the improvements in the pain intensity (VAS) of sitting and stair activities, values of Q angles, NDT, CTA and FPI were statistically significant in SFE group compared to KHE group ($p<0.05$).

Conclusions: In conclusion, it was shown that SFE has positive effects on pain, knee and foot biomechanics in patients with PFP. At this point, SFE is an exercise approach in order to increase the success of the rehabilitation program in patients with PFP.

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