

The EurQoL was changed in all axSpA (0.74 ± 0.21 to 0.77 ± 0.18 $p<0.05$), but significantly was improved only in nr-axSpA subgroup (0.72 ± 0.23 to 0.78 ± 0.18 , $p<0.01$), not AS. Similarly, the improvement of the assessment of "hodiernal health status" was found after an intervention only in the nr-axSpA subgroup (65.81 ± 21.80 to 78.00 ± 13.77 , $p<0.01$).

Conclusions: Our study demonstrated beneficial effect of intensive exercise programme on disease activity and patients self-reported outcomes in nr-axSpA and AS patients. The patients suffering from nr-axSpA can profit at least similarly from the rehabilitation care as those with radiographic form. The exercise programme should be recommended for both subtypes of axSpA.

References:

[1] Millner JR, et al. Exercise for ankylosing spondylitis: an evidence-based consensus statement. *Semin Arthritis Rheum.* 2016;45:411–27. doi: 10.1016/j.semarthrit.2015.08.003.

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AB1181 LOCAL STEIOD AND INSULIN INJECTION IN MANAGEMENT OF CARPAL TUNNEL SYNDROME; A COMPARATIVE STUDY

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Background: Carpal tunnel syndrome (CTS) is the most common focal nerve entrapment; local corticosteroid (CS) injection has been widely used to treat CTS. Recently; Local insulin Injection in CTS has been studied as insulin has anti-inflammatory anti-edematous effects.

Objectives: To compare the effectiveness of local steroid and insulin injections in management of CTS

Methods: Forty patients complaining of mild or moderate idiopathic CTS (diagnosed clinically & electrophysiologically and classified according to American association of neuromuscular diagnostic medicine monograph) divided into 2 equal groups.

Group I received two local injections of 10 IU NPH insulin into the affected carpal tunnel 2 weeks intervals. Group II: received single injection of triamcinolone acetonide (20 mg/0.5 ml) all procedures done after informed consent. Patients with severe or secondary type of CTS were excluded from this study. Evaluation of the patients was done at baseline, 2 and 4 months later clinically by measuring visual analogue scale (VAS), Phallen and compression tests and electrophysiologically by measuring motor and sensory nerve conduction studies of median and ulnar nerves using a standardized technique.

Results: There was significant improvement in all clinical parameters in both groups after 2 and 4 months from injection ($p<0.01$) including VAS, Phallen and compression tests with more improvement was noticed in group I. Also there was significant improvement in electrophysiological parameters such as distal motor latency (DML) and distal sensory velocity of median nerve 2 and 4 months after treatment ($p<0.01$). However the improvement was more in group I but the difference between results in both groups were statistically nonsignificant.

Table 1. clinical and electrophysiological results

| | Before injection | | After 2 months | | After 4 months | |
|--|------------------|------------|----------------|------------|----------------|-------------|
| | Group I | Group II | Group I | Group II | Group I | Group II |
| VAS | 7.1±1.03 | 7.25±1.377 | 4.05±1.23 | 5.107±1.57 | 3.2±1.39 | 3.75±1.878 |
| Positive Phallentest % | 100 | 95 | 60 | 60 | 30 | 35 |
| Positive compression test% | 100 | 100 | 60 | 65 | 30 | 30 |
| DML (ms) | 4.61±0.34 | 4.63±0.569 | 4.375±0.37 | 4.405±0.51 | 4.15±0.14 | 4.18±0.548 |
| Distal median nerve sensory velocity (m/s) | 32.9±5.32 | 32.8±4.78 | 36.9±6.21 | 36.05±5.3 | 39.9±5.39 | 39.11±6.146 |

Conclusions: Local insulin injection is as effective as (or even better than) local steroid injection in management of CTS

References:

- Sun Q, Li J, Gao F. New insights into insulin: The anti-inflammatory effect and its clinical relevance. *World J Diabetes.* 2014 Apr 15; 5(2): 89–96.
- Ginanneschi F, Filippou G, Bonifazi M, Frediani B, Rossi A. Effects of Local Corticosteroid Injection on Electrical Properties of Aβ-Fibers in Carpal Tunnel Syndrome. *J Mol Neurosci.* 2014; 52:525–530.
- Ashraf A, Yazdani A, Mirshams S. Evaluation of the effectiveness of local insulin injection in type 2 diabetic patients with CTS. *Electromyogr Clin Neurophysiol.* 2009 May-Jun;49(4):161–6.

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AB1182 THE ROLE OF VITAMIN D AND EXERCISES IN CORRECTION OF AGE-RELATED SKELETAL MUSCLE CHANGES IN POSTMENOPAUSAL WOMEN

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Background: The aim of the study was to evaluate the role of vitamin D and exercises in correction of age-related skeletal muscle changes in postmenopausal women.

Objectives: 38 postmenopausal women aged 53–82 years (mean age – 67.00 ± 7.08 yrs; mean height – 160.31 ± 6.83 cm; mean weight – 63.25 ± 8.59 kg, body mass index – 24.62 ± 3.09 kg/m²) were examined. All subjects were free of systemic disorders (endocrine, renal, hepatic etc.) and did not take any medications known to affect skeletal and muscle metabolism. The women were divided into the following groups: A – control group (n=10), B – women who took an individually-targeted vitamin D therapy (n=11), C – women who took an individually-targeted vitamin D therapy and OTAGO Exercise Programme (http://www.hfwcn.org/Tools/BroadCaster/Upload/Project13/Docs/Otago_Exercise_Programme.pdf) during 12 months.

Methods: The assessment of the examined women was conducted every 3 months at the medical center. We used the following questionnaires: SARC-F, IADL-questionnaire, frailty scale, Desmond fall risk questionnaire. For evaluation of skeletal muscle function and strength, we assessed the usual gait speed and used hand dynamometry. 25(OH)D total and iPTH levels were measured by electrochemiluminescent method i.e. Elecsys 2010 analytical system (Roche Diagnostics, Germany) and test-systems cobas. The lean mass was measured by the DXA method (Prodigy, GEHC Lunar, Madison, WI, USA). "Statistika 6.0" © StatSoft, Inc. was used for the data processing purposes.

Results: At the baseline, the groups of examined women did not differ in their age, anthropometric characteristics, 25(OH)D values, data of skeletal muscle mass, strength and function. In women of the control group, the mean 25(OH)D level significantly increased after 9 months of observation (9 months – $p=0.03$) purportedly due to the seasonal factors. In women of 2nd and 3rd groups, the 25(OH)D level significantly increased after 3, 6, 9 and 12 months of observations (2nd group: 3 months – $p=0.009$, 6 months – $p=0.007$, 9 months – $p=0.005$, 12 months – $p=0.003$; 3rd group: 3 months – $p<0.001$, 6 months – $p<0.001$, 9 months – $p<0.001$, 12 months – $p<0.001$). The data of SARC-F, IADL-questionnaires did not change during 12 months of observation in women of 1st and 2nd groups; however, in the 3rd group the SARC-F data significantly decreased after 12 months ($p=0.02$) while the IADL data – significantly increased after 9 ($p=0.04$) and 12 months ($p=0.05$). The data of frailty scale and Desmond fall risk questionnaire did not differ in all groups during 12 months. The muscle strength significantly increased after 9 months ($p=0.01$) in women of 3rd group while in women of 1st and 2nd group this parameter did not change. The usual gait speed and lean mass assessed by DXA did not change in all groups during 12 months. The fall frequency in women of 1st group significantly increased after 12 months, in women of 2nd group it did not change while in women of 3rd group the fall frequency significantly decreased.

Conclusions: Using individually-targeted vitamin D therapy and OTAGO Exercise Programme during 12 months significantly improves daily activity, muscle strength and decreases the fall frequency in postmenopausal women.

Disclosure of Interest: None declared

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Education

AB1183 PATIENT'S EDUCATION IN THE ADMINISTRATION OF SUBCUTANEOUS DRUGS IN THE RHEUMATOLOGY DAY-CARE HOSPITAL UNITS

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Background: Rheumatology Day-Care Hospital Unit (DHU) is defined as a hospital care for a few hours with the objective to do diagnosis, clinical trials and/or multiple test, patient education and treatments that cannot be done in the outpatient clinic, but which do not justify the complete stay in the hospital

Objectives: Analyze the number of visits that one patient needs in the Rheumatology-DHU to learn the self-administration of a subcutaneous drug. To evaluate if there are differences between the numbers of visits made in Rheumatology-DHU for the different drugs, and between the different age groups of the patients.

Methods: All patients who were prescribed a subcutaneous drug (except denosumab) during the period January 2015 - December 2016 were referred to Rheumatology-DHU. The nurse gave instructions, she supervised the patient's learning and she decided if the patients needed a new control in Rheumatology-DHU.

The following data were recorded: sex, age, diagnosis, drug, number of visits each patient made in Rheumatology-DHU, reason for new visit to Rheumatology-DHU in patients who had already been discharged and adherence to treatment.

Results: 101 patients were visited in Rheumatology-DHU (8 were referred twice for education of different drugs). 79 were women (78%) and 22 men (22%). Mean age (MA) of 65 +/- 17 years (SD).

| Diagnosis MA/SD | MTX | PTH | GOL | ETA | ADA | CER | ABA | SECU | Total |
|---------------------------------|----------|----------|--------|--------|--------|--------|--------|--------|-------|
| Rheumatoid arthritis 62±16 | 30 | 0 | 2 | 4 | 2 | 1 | 2 | 0 | 41 |
| Psoriatic arthritis 52±17 | 9 | 0 | 5 | 1 | 1 | 1 | 0 | 1 | 18 |
| Ankylosing spondylitis 48±12 | 1 | 0 | 2 | 2 | 3 | 2 | 0 | 0 | 10 |
| Osteoporosi 79±7 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| Total (%) | 40 (37%) | 40 (37%) | 9 (8%) | 7 (6%) | 6 (6%) | 4 (3%) | 2 (2%) | 1 (1%) | 109 |

MTX: methotrexate PTH: teriparatide GOL: golimumab ETA: etanercept ADA: adalimumab CER: certolizumab ABA: abatacept SECU: secukimumab SD: standard deviation.

A total of 238 visits were made in Rheumatology-DHU.

Adherence to treatment was 98.2%.

Six patients (5.5%) required a new referral to Rheumatology-DHU: 1 for poor adherence to treatment (ADA), 3 for skin lesions (2 MTX and 1 GOL), 2 supervise the treatment (1 CER and 1 MTX).

In 9% of the patients, the education was done to a reference person and not to the patient himself.

The number of visits in the Rheumatology-DHU were: 1 in 26 patients (MS of 66 +/- 19.6 years), 2 in 59 patients (MS 65 +/- 18); 3 in 13 patients (MS 64 +/- 13); 4 in 6 patients (MS 67 +/- 14); 5 in 2 patients (MS 68 +/- 17), 6 in 2 patients (MS 70 +/- 22), 9 in 1 patient (47 years).

We analyzed PTH and MTX groups (because they had the highest number of patients) and we observed that in the PTH group 82% required ≤2 visits, 18% > 2 visits. Patients in MTX group: 77% ≤2 visits and 23% >2 education visits. There weren't significant differences between the two groups (p=0.576).

Conclusions: Adherence to treatment in patients who are referred to Rheumatology-DHU to learn the self-administration of a subcutaneous drug is very high.

The new visits in Rheumatology-DHU for doubts or side effects were few.

Patients on PTH treatment, who were older, didn't require a higher number of visits or more new referrals to Rheumatology-DHU. Therefore, age is not a limiting factor for the right learning of patients.

The patient's education by nurse in Rheumatology-DHU is necessary for the right control of our patients

Disclosure of Interest: None declared

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AB1184 EDUCATIONAL NEEDS OF PATIENTS WITH RHEUMATIC DISEASES RECEIVING BIOLOGICS

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Background: Biologics are still considered by patients as a new and partially enigmatic tool for management of rheumatic diseases.

Objectives: The study was designed to evaluate educational needs and sources of knowledge in patients with rheumatic diseases treated with biologics.

Methods: Anonymous questionnaires were distributed in 23 Polish rheumatological centers involved in the treatment, 1231 questionnaires were used for analysis. Responses were received from 606 patients with rheumatoid arthritis, 427 with ankylosing spondylitis, 117 psoriatic arthritis, and 62 adult patients with juvenile idiopathic arthritis (in whom administration of the drugs had been introduced before they were 18-year-old), as well as 19 ones receiving the drugs due to other musculoskeletal disorders. The investigated group constituted about one-fifth of all rheumatic patients on biologics in Poland.

Results: Almost all the patients had learnt for the first time on biologics from their rheumatologist (93%). Few only patients had got such data from internet or from other patients. Likewise, most of the patients got majority of educational data on treatment with biologics from rheumatologist who was supervising the therapy (82%). Remaining sources included internet (8%) and other patients (5%). Relative low number of patients was educated by nurses (2%). Most of the patients (87%) were looking for more details on biological treatment. The patients with rheumatic disease lasting less than 10 yrs. were more interested in the management than those suffering longer. Most of the patients (94%) considered their rheumatologist as the main person responsible for their education on biologics. There was no difference between patients with various rheumatic diseases as well as no difference was found between female and male patients. Biological treatment attracted more interest in younger than older patients.

Conclusions: Education is still a challenge in patients receiving biologics. Most of

the patients represented traditional attitude to health education, expecting almost all educational data to be provided by their physician. We were surprised that role of the nurses was found to be rather low. An increase in role of nurses seems to be the future aim of the educational efforts in Polish rheumatology.

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AB1185 REAL-LIFE EXPERIENCE AND MUTUAL EXPECTATIONS OF PATIENTS AFFECTED WITH CHRONICAL INFLAMMATORY RHEUMATIC DISEASES AND THEIR RELATIVES; CONSEQUENCES IN PATIENT EDUCATION: A QUALITATIVE STUDY BY THE PROXYRIC GROUP OF THE PATIENT EDUCATION DIVISION OF FRENCH RHEUMATIC DISEASE SOCIETY

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Background: Interaction with relatives has a significant role on patients' health, and can also impair relatives' health. Education processes need codification to enrol relatives in the programmes.

Objectives: To create a patient education program for relatives and patient affected by rheumatic inflammatory disease

Methods: Individual semi-directed by 2 psychologists interviews, have been performed and their thematic content analysed with the QDA Miner program. A guide had been achieved by rheumatologists, psychologists et patient association representatives. The (patient/relative) dyad, has been first questioned together, and then individually.

Results: 20 patients, average age 59 years (27–79) affected with Rheumatoid Arthritis (n=13), Spondyloarthritis (n=9) with an average disease duration of 12,8 years (1–39) and one of their relatives (being their spouse in 18 cases) have been recruited in 7 rheumatology departments in France. Common life duration was 27,5 years as an average (1,5–57). About 2/3 of patients and relatives have a common view on: relative's role in bringing an emotional support but needs a knowledge on disease and treatments; emotional distress experienced by both patient and relative; the worries and relative's feelings of not knowing how to do; the help brought by the relative in everyday's life and his participation to care management. Only a few relatives talked about concerns, regrets of past life, and burden feeling of patient. Relatives also express unfairness feelings. 2/3 of patients and relatives report will of independence of the patient, who wants to manage alone, and does not express his difficulties. 50% of relatives think they anticipate patient's needs, they are also directly requested by the patients. On the other side, the patients often report that they watch over relative's health. 50% of patients and relatives mention the idea of complementarity and "team", but also tensions or conflicts. Patient Education contribution would be sharing and exchanging between them, according to 2/3 of patients and relatives, who therefore would prefer group education (12/20). Relatives however more often mention a common education with patient, and patients prefer a separate education of relative. The main limit to of this study is that participation to study has favored harmoniously functioning dyads, what may explain the weak rate of abandonment feeling.

Conclusions: Expectations on relatives' role seem to be common in terms of practical and emotional support. Relatives sometimes mention the "positivation" of their role, but also emotional distress and helplessness feeling. Patients fear they are a burden and want to be independent. A specific educational management of relatives is more often suggested by patients than by relatives.

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AB1186 OPTIMISATION OF RHEUMATOLOGY UNDERGRADUATE TEACHING: SELF-DIRECTED DEVELOPMENT OF POWERPOINT PRESENTATIONS BASED ON THEORETICAL CLINICAL CASES

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Background: One element of rheumatology undergraduate teaching in City Hospital Sunderland, UK traditionally involves "paper cases" delivered via small group learning and discussion. Although popular it has had poor feedback from both the students and the tutors at times especially when the tutor to student ratio is high (>1:6). With limited numbers of tutors (Consultant Rheumatologists), this issue was becoming more frequent.

Objectives: We wished to explore alternative yet still interactive methods to highlight key learning points relating to common rheumatological conditions in a 60 minute teaching session and to make this fun and engaging.