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AB1280-HPR

REQUIRED FORCE TO OBTAIN A POSITIVE SQUEEZE TEST AUTOMATIZED IN PATIENTS WITH HAND ARTHRALGIA

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Background: Primary care physicians (PCP) are usually the first contact of people with inflammatory rheumatic diseases, and find the early symptoms of Rheumatoid Arthritis (RA) difficult to distinguish from those of other rheumatic diseases. A time-delay in the reference to Rheumatology is a health issue in several countries. The clinical aspects that general practitioner took into account in hand arthralgia patients are important to make the reference. In particular the Squeeze Test (ST) - which is simple to perform and rapidly done, ST is useful for identifying progression to RA in patients with undifferentiated arthritis. The ST has been described as not reliable because is clinician-dependent.

Objectives: To identify the required force that needs to be applied in order to obtain a positive Automatized Squeeze Test (AST) in a cohort of patients with hand arthralgia.

Methods: Ninety-seven patients were recruited in Family Medicine Consultation and in Rheumatology Consultation of the Hospital Universitario "Dr. José Eleuterio González" in Monterrey, Nuevo León, México. Eligible patients were adults (aged ≥18 years) with hand arthralgia (that wasn't caused by trauma) as their chief complaint. After obtaining informed consent and after a questionnaire application, patients were submitted to AST maneuver, using an automated compressor with different forces already predetermined in the interface of the software used for compression.

Results: In this cohort of 98 patients, 79 (80.6%) were women. The mean age was 51.14 years (SD 14.66). Ninety-six (97.9%) patients were right handed. The diagnoses were Osteoarthritis (OA) (16.3%), RA (5.1%), Undifferentiated arthritis (1.2%), Psoriatic arthritis (1.2%) and Fibromyalgia (2%). Force measures according to diagnoses are reported in Table 1.

Table 1. Diagnoses and mean forces

Diagnosis	n (%)	Right hand force mean (kg/s ²) (SD)	Left hand force mean (kg/s ²) (SD)
OA	16 (16.3)	3.53 (2.74)	3.18(2.73)
RA	5 (5.1)	3.60 (2.53)	3.16(1.36)
UA	1 (1.2)	7.60(0)	8.70(0)
PsA	1 (1.2)	7.60(0)	7.80(0)
FM	2 (2.0)	4.11(4.40)	1.75(1.06)

OA, Osteoarthritis; RA, Rheumatoid Arthritis; UA, Undifferentiated Arthritis; PsA, Psoriatic Arthritis; FM, Fibromyalgia; SD, Standard Deviation

Conclusion: In the cases of RA and OA, the means of force to obtain a positive AST was lower than in the rest of the diagnoses.

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THE LEVELS OF VITAMIN D IN THE SPONDYLOARTHRITIS. DOES THE DEFICIT CORRESPOND TO THE INFLAMMATORY ACTIVITY?

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Background: Spondyloarthritis is a group of chronic inflammatory diseases with involvement of the axial skeleton (mainly), and also of peripheral joints. Patients with spondyloarthritis have a significant prevalence of vitamin D levels below normal and that would correlate with the degree of activity of the disease.

Objectives: To determine the association between vitamin D deficiency and the degree of activity of the disease (inflammatory activity) in a cohort of patients with spondyloarthritis.

Methods: Case-control type analytical observational study. We propose a retrospective review of the database of patients with spondyloarthritis (according ASAS2010 criteria) who were treated in the outpatient clinics of the Rheumatology Service of the General University Hospital of Ciudad Real during June 2018 to June 2019. Patients with the data will be selected. necessary for the analysis of the variables under study. The numerical variables of normal distribution evaluated will be described using measures of frequency and measures of central tendency / dispersion as appropriate. To assess the association between vitamin D levels and activity index, the odds ratio (OR) is calculated, with a 95% confidence level and the T-student for related samples.

Results: The final results of the study are presented. 115 patients were analyzed, of which 64 were men and 51 women, with an average age of 45.97 years (+/- 13.41 DE). 47% were ankylosing spondylitis, 21% psoriatic arthropathy, 16% undifferentiated spondyloarthritis, 7% spondyloarthropathy associated with inflammatory bowel disease and 9% were spondyloarthropathy associated with inflammatory bowel disease. The average of the activity was a BASDAI of 4.57 (+/- 2.35 SD) and measured by DAPSA was 12.61 (+/- 6.76 SD). 63 and 14 patients had activity measured by BASDAI and DAPSA, respectively. 49.56% patients presented an elevation of acute phase reactants. Vitamin D levels were 23.81 (+/- 10.5 SD). 77.4% presented figures of vitamin D deficiency or insufficiency. When performing the association analysis, the vitamin D deficit / insufficiency presented an OR 10 (95% CI: 3.66-27.29, p<0.0001) with the degree of activity measured with BASDAI and DAPSA and against the elevation of RCP it was 3.63 (95% CI 1.43-9.25, p = 0.0092) and against the elevation of ESR it was 2.76 (95% CI 1.09-7, 0, p = 0.0438). Regarding the comparative analysis of means between vitamin D deficiency/insufficiency and BASDAI/DAPSA it was +3.29 (95% CI: 1.34-8.09, p=0.0084).

Conclusion: Patients with spondyloarthritis, as in other autoimmune diseases, vitamin D deficiency is associated with increased inflammatory activity (BASDAI, DAPSA, RCP and ESR), measured in different time periods. Therefore, an optimization of vitamin D levels can imply an improvement in the patient's clinical situation, measured by both BASDAI and DAPSA, as well as by RCP and ESR. In addition, it is necessary to monitor bone mineral density due to the risk of fracture in these patients for their multitology (corticosteroid treatments, biological FAMES, inflammatory activity).

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AB1282-HPR

CONCORDANCE BETWEEN TUBERCULIN TEST AND INTERFERON-GAMMA RELEASE ASSAY IN THE SCREENING OF LATENT TUBERCULOSIS INFECTION IN PATIENTS WHO ARE GOING TO INITIATE A TNF INHIBITOR

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Background: The drugs that inhibit tumor necrosis factor (anti-TNF) alpha can reactivate a latent tuberculosis infection (ILTB) so requiring a rigorous screening before its onset. The tuberculin test (PT) has a high false negative rate in patients with immunomediated rheumatic diseases (IMID) and false positive in patients vaccinated with Bacillus Calmette Guérin (BCG). The new methods of interferon gamma release (IGRA) seem to solve this problem, but its use is not standardized.

Objectives: Establish the degree of concordance in the diagnosis of ILTB between PT and IGRA in patients who are going to start an anti-TNF drug, in general, and in different situation like taking corticosteroids, being treated with disease modifying drugs, have been vaccinated with BCG or have risk factor for ILTB.

Methods: From May 2016 to November 2019, 195 patients with IMID who underwent ILTB screening prior to the initiation of an anti-TNF drug were included in this study. The concordance between PT and IGRA was calculated using the Cohen's kappa index, for the general sample first and then for subgroups. An analysis of the factor that influence the result of PT and IGRA has also been carried out.

Results: The prevalence of ILTB was 26.7%. Of the total positive PT and Booster (n=50), QTF-G-IT was positive only in 15 patients (30%). The agreement between PT and QTF-G-IT was 0.33 ($p<0.05$). In the subgroups, a moderate agreement was found in patients who did not take corticosteroids ($k=0.45$, $p<0.05$) and greater than the global one in those who had risk factor for ITLB ($k=0.37$, $p<0.05$).

Conclusion: In our study the agreement between PT and QT-G-IT is low in general, being somewhat higher in unvaccinated patients and with a high probability for ILTB. Taking this result into account due to the low concordance, the ideal ILTB screening strategy in patients who are going to start a anti-TNF would consist of performing both tests.

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AB1283-HPR GASTROINTESTINAL INVOLVEMENT AND QUALITY OF LIFE IN A COHORT OF SYSTEMIC SCLEROSIS (SSC) PATIENTS

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Background: SSC is an autoimmune disease characterized by fibrosis of the skin and several internal organs involvement. The gastro intestinal tract is often affected causing a wide symptomatology that can involve the oesophagus, stomach and/or intestine.

Objectives: To assess the gastro-intestinal tract with the UCLA SCTC GIT 2.0 questionnaire and the adherence to the Mediterranean diet with the Mediterranean Diet Score in a cohort of SSC patients.

Methods: 18 SSC patients classified with ACR/EULAR criteria (limited and diffuse subsets) were enrolled from January to April 2019, from the outpatient clinic of the University of Florence, Division of Rheumatology, Careggi Hospital. UCLA SCTC GIT 2.0 questionnaire for gastro-intestinal involvement (range 0-3), Mediterranean Diet Score (MDS range 0-14) for adherence to the Mediterranean diet, Health Assessment Questioning (range 0-3) for disability and SF-36 (range 0-100) for the quality of life were administered to patients. Data on weight and height were collected for the calculation of the Body Mass Index (BMI).

Results: the 18 SSC patients included had an average BMI of 23.9 ± 4.7 (M $\pm$ SD): only one patient was underweight (BMI=16.6) and 4 patients were overweight (BMI> 25). Our results show good adherence to the Mediterranean diet with a score of 9.78 ± 2.24 (M $\pm$ SD) to the MDS. The quality of life assessed by SF-36 show scores were below the cut-off (<50), showing an impaired quality of

general life (mental summary index = 36.32 ± 11.35 and physical summary index = 39.53 ± 8.61). Patients disability, assessed by HAQ, reports some difficulty in carrying out daily life activities due to the disease (0.52 ± 0.53 - M $\pm$ SD). Gastro-intestinal involvement, measured with the UCLA GIT 2.0 questionnaire, shows moderate symptoms (0.50 - 1.00) in most items (reflux, abdominal distension, social function and emotional well-being), while a lower score (0.00 - 0.49) it was found in other items (diarrhea, constipation and faecal incontinence). Therefore, the total score of gastrointestinal involvement is moderate (0.42 ± 0.38 M $\pm$ SD).

Conclusion: In SSC, Gastrointestinal involvement has a significant impact on quality of life, influencing the eating habits and sometimes leading to nutritional deficiencies. Further studies to analyse the eating habits of SSC patients are needed.

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AB1284-HPR RELIABILITY OF STEP TEST IN SUBJECTS WITH TOTAL KNEE ARTHROPLASTY

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Background: Patients with TKA show impairments in standing balance up to 1 year after surgery. The impaired standing balance in TKA patients was found to be associated with falls risk and decreased functional level. Assessing of standing balance with objective and reliable assessments tools would therefore be extremely useful for determining accurate exercise program, and risks of falling, especially during the rehabilitative period when ambulation is at its most unsteady (1, 2). The stepping maneuver requires adequate strength and motor control to stabilize the body over the stance limb while the other leg is stepping, therefore the Step Test (ST) provides significant information for dynamic standing balance and lower limb motor control (3). The reliability of ST is reported in patient groups such as stroke, however, there is not any study that investigates the reliability of ST in patients with TKA in the current literature.

Objectives: The purposes of this study were to determine the test-retest reliability and the minimal detectable change (MDC) of the ST in patients with TKA.

Methods: 40 patients with TKA due to knee osteoarthritis, operated by the same surgeon, were included in this study. Patients performed trials for ST twice on the same day. Between the first and second trials, patients waited for an hour on sitting position to prevent fatigue. The ST assesses an individual's ability to place one foot onto a 7.5-cm-high step and then back down to the floor repeatedly as fast as possible for 15 seconds. The score is the number of steps completed in the 15-second period for each lower extremity. Scores for each lower extremity were recorded separately. Prior to the testing, the ST was demonstrated by the tester and all participants were allowed to a practice trial.

Results: The ST showed an excellent test-retest reliability (ICC2,1=0.95) in this study. Standard error of measurement (SEM) and MDC₉₅ for ST were 0.37 and 1.02, respectively.

Conclusion: This study found that the ST has an excellent test-retest reliability in patients with TKA. It is an effective and reliable tool for measuring dynamic standing balance and participant falls. As a performance-based clinical test, the ST is easy to score, can be applied in a short time as part of the routine medical examination. Therefore, inclusion of ST into a more comprehensive battery of