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HPR Epidemiology and public health (including prevention)

FRI0601-HPR IMPACT OF LIFE STYLE MODIFICATION TECHNIQUE IN SYSTEMIC SCLEROSIS (SSC) PATIENTS: A STUDY BY RHEUMATOLOGY NURSES COUNSELOR

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Background: Systemic sclerosis (SSc) is an autoimmune disease of the connective tissue that is clinically characterized by the involvement of skin (fibrosis, contractures of the finger joints), microvascular abnormalities (Raynaud's phenomenon and complications), gastrointestinal involvement (gastroesophageal reflux disease - GERD, the lower GI tract involvement), musculoskeletal involvement (polyarthralgia, muscle disease), and involvement of internal organs (especially lungs, heart, and kidneys). Lifestyle modification techniques could have significant impact on various aspects of the disease including early disease control, increased drug adherence, positive attitude towards life, decreased financial burden of treatment, maintaining mobility and joints range of motion, minimizing or delaying joint contractures and decreased dependency with regular physical therapy. Counselling explaining the benefits of lifestyle modification related to these aspects of daily living may make a major difference in the quality of life of the patients with SSc.

Objectives: To assess the benefits of lifestyle modification technique in improving the quality of life in patients with SSc.

Methods: Patients with SSc attending the Rheumatology clinic of this institution, willing to participate in the survey, were enrolled in this study. All the information including the follow-up details were recorded in a pre-designed form. Their demographic information (age, gender) and disease characteristics (diagnosis, duration, treatment) were recorded. All the patients were explained the lifestyle modifications and their benefits, reinforced at each follow-up visit using posters (visual), written lifestyle modification techniques (using printed material) to raise their awareness of how to improve several of the above manifestations of SSc.

Results: One hundred fifty (n=150) consecutive SSc patients were included in the study. It was observed that with repeated counselling 125 (83.3 %) patients adopted the lifestyle modification technique according to the advice imparted and felt a positive benefit in their daily life. However, 25 (16.6%) could not or did not follow the imparted lifestyle change advice on a regular basis. Those who were able to modify the life-style as counselled showed the following results:

- 80 % were able to avoid exposure to cold by adopting the following measures: Wearing gloves and extra woolen socks, using mittens most of the time, wearing woolen undergarments to keep the central regions of the body region warm. These patients noted 55% decrease in the episodes of Raynaud's phenomenon.
- Early evening meals and raising the head-end of the bed: 60% decrease in gastrointestinal symptoms.
- Regular physiotherapy: 65 % decrease dependency on others; 55% could maintain flexibility with physical exercises.
- Regular application and rubbing of the skin with lanoline-containing skin moisturizers 60 % improve your skin's health
- 80% were able to avoid active and passive tobacco use.

Conclusion: The lifestyle modification techniques are important to control disease and its complications. Thus, after intense and regular counselling by the specialist rheumatology nurses on the lifestyle modification technique (83.3%) adapted the advised lifestyle modifications. The study showed the important role specialist rheumatology nurses can play in educating patients and helping them improving their quality of life.

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FRI0602-HPR PERSISTENT HYPOCOMPLEMENTEMIA IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Systemic lupus erythematosus (SLE) is a systemic, chronic, autoimmune disease of unknown cause characterized by a wide variety of clinical manifestations and autoantibody production. The complement is useful in the initial diagnosis, as an activity marker and for the follow-up of patients with SLE. Individual components may fluctuate only slightly with disease activity and C4 may even remain low during remission. Hypocomplementemia is associated with renal involvement, cutaneous vasculitis, diffuse alveolar hemorrhage, however, patients with persistent hypocomplementemia are not characterized yet.

Objectives: 1) Determine the prevalence of persistent hypocomplementemia in patients with SLE.

2) Identify clinical characteristics, disease activity and accumulated damage in these patients.

Methods: A longitudinal study was conducted with a review of the medical records of patients diagnosed with SLE (ACR criteria 82/97) who attended the Rheumatology Service between January 2000 and December 2015. Patients with a minimum evolution time of 6 months from the diagnosis of SLE with quarterly controls and monitoring for 2 years. Persistent Hypocomplementemia (PHC) was defined at C3 and / or C4 values below the normal range of the reference laboratory in a sustained form for at least 24 months. Demographic variables, clinical manifestations, disease activity by SLEDAI 2k, flare by SELINA SLEDAI and accumulated damage by SLICC / SDI were analyzed.

Results: Clinical records of 254 patients with SLE were reviewed and 144 were included; 96% were women, with a mean age at diagnosis of SLE of 30.5 ± 11.2 years and a time of evolution of the disease at the last control 11.85 ± 7.8 years. Forty-one patients had PHC (28.5%; 95% CI 21.1, 35.8). The median of evolution time disease at the moment of PHC was 1 year (0-24) and the mean time of persistence of hypocomplementemia was 56 ± 46 months. In the univariate analysis, PHC was associated with hematological involvement during the course of the disease (p=0.01). Patients with PHC had a higher frequency of severe flare during follow-up (p=0.02). PHC was not associated with age of onset of SLE, disease activity (maximum SLEDAI reached), accumulated damage or death. Applying Logistic Regression Model with dependent variables with a level of significance <0.25, PHC was associated independently with hematological compromise (OR 3.2).

Conclusion: In this cohort of patients, the prevalence of PHC was 28.5%. PHC was associated with severe flare and hematological compromise.

Disclosure of Interests: None declared

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FRI0603-HPR COMORBIDITIES IN RHEUMATOID ARTHRITIS: UTILITY OF RACI SCORE (RHEUMATOID ARTHRITIS COMORBIDITY INDEX)

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Background: One third of patients with rheumatoid arthritis have some comorbidity at the time of diagnosis and 80% during the evolution. The presence of each additional comorbidity reduces the chances of remission by 28%.

Objectives: To determine the prevalence of comorbidities in Rheumatoid Arthritis (RA) and to evaluate associated variables.

Methods: A descriptive cross-sectional study was conducted. It were included patients over 18 years of age, who attended the Rheumatology office between May and August 2018 with a diagnosis of RA according to the ACR 1987 and ACR/EULAR 2010 criteria. Demographic variables were studied along with disease-related variables (time of evolution, disease activity by DAS-28 and CDAI, treatment and functional capacity (HAQ-A)). The presence of comorbidities was evaluated using two indexes: Rheumatoid Arthritis Comorbidity Index (RACI) and

Disease Comorbidity Index (RDCI). RACI consists of 31 comorbidities grouped into 11 categories: DAS 28 >3.6, local inflammation, smoking, tumors, systemic involvement, infection, vascular disease, bone health, mood, metabolic and cardiovascular disorders (score range 0-36). RDCI consists of 11 comorbidities (categories according to ICD-10) and a formula to calculate it (range 0-9). For both indexes; higher score, greater comorbidity.

Results: In this cross-sectional study, 345 patients were evaluated, of which 176 were included, 85.8% of the patients were female and the mean age was 52.7 ± 10.9 years; 31.2% of the cases finished primary school, the median of disease duration was 9 years (1-40), the mean DAS28 3.8 ± 1.4 , and the mean CDAI 12.4 ± 11.3 . 52.3% of the patients received treatment with glucocorticoids, 60.8% with NSAID, 60.2% with methotrexate, 39.2% with leflunomide, 17.6% with biologic DMARDs and 5.6% with tofacitinib. 90.3% of the patients (95% CI 84.8, 94.3) presented some comorbidity measured by RACI. The average score was 4.7 ± 3.4 and the most frequent comorbidity were: elevated DAS28 (40.9%), dyslipidemia (38.1%), AHT (36.4%), prednisone >5 mg/d in 31.8%, endocrinopathies 19.3%. 73.3% of the patients had more than one comorbidity. Regarding RDCI, 47.2% of the cases presented some comorbidity with an average score of 0.95 ± 1.3 ; the most frequent were: AHT 36.4%, lung disease 12.5% and diabetes 8%. The oldest patients had more than one comorbidity (RACI), and also presented a higher HAQ score than those with only one ($p < 0.0001$). Higher RACI score was associated with higher CDAI ($p < 0.001$) and the use of glucocorticoids ($p = 0.008$).

Conclusion: The prevalence of comorbidities in RA by RACI was elevated (90.3%) and 73.3% of the patients presented more than one comorbidity. The patients with the highest RACI score had higher disease activity and used glucocorticoids more frequently.

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FRI0604-HPR IS STRESS A TRIGGER FOR THE DEVELOPMENT OF SYSTEMIC LUPUS ERYTHEMATOSUS?

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Background: Systemic Lupus Erythematosus (SLE) implies multifactorial psychological stress. Although stress has been spreaded as a "trigger" for the onset or flare of connective tissue diseases, there is controversial evidence of the association between stress and the diagnosis of SLE.

Objectives: To assess the frequency of stressors and vital events in patients with SLE and their relationship with the diagnosis.

Methods: A descriptive cross-sectional study was conducted. It were included patients over 18 years old with SLE diagnosis (ACR/SLICC criteria), attended in the Rheumatology Unit between May and August 2019; and 101 patients without any autoimmune disease. Demographic and disease-related variables were studied. The Holmes and Rahe Vital Events scale (43 questions) was used to evaluate vital events and measure the magnitude of stress that a person has experienced for a while and predict the onset of SLE. The sum of the scores indicates the magnitude of vital stress experienced by a person and the predisposition to acquire a disease. It was classified as: <150: small risk of illness due to stress; 150-299: moderate risk; and ≥ 300 : high risk.

Results: 94 patients with SLE were included, of which 94% were women. The mean age was 36.3 ± 10.3 years. 41.9% of the cases had a family history of rheumatic disease and 31.2% of them were unemployed. During the year before the diagnosis of SLE, 48.4% of the patients suffered a stressful situation, the most frequent cause was the death of a close family member (44.1%). Patients with SLE presented significantly higher stress scores than the healthy group (140 ± 27 vs. 45.1 ± 43 , $p = 0.0001$); 54.8% of patients with SLE had a score <150; 23.65% between 150-299; and 10.75% ≥ 300 . The number of patients with SLE was higher in the moderate and high risk categories (>150) than the healthy group (34% vs. 2%, $p = 0.0001$). When studying the Holmes and Rahe scale factors individually, patients with SLE had a higher frequency of situations related to: death of the couple ($p = 0.029$), death of a close relative ($p = 0.0001$), injury or personal illness ($p = 0.006$), change in living conditions ($p = 0.0001$) and poor relationship with the couple ($p = 0.017$).

Conclusion: Patients with SLE presented high frequency of stressful situations before diagnosis (48.4%), and higher scores compared to the healthy group. The death of a close family member was the most frequent stressful event.

Disclosure of Interests: None declared

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FRI0605-HPR MORTALITY AND SURVIVAL IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS IN ARGENTINA. A MULTICENTER STUDY ON BEHALF GESAR-LES

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Background: The mortality rate in patients with systemic lupus erythematosus (SLE) is 2–3 times higher than in the general population. However, survival in these patients has improved significantly and is currently 95% at 5 years according to different studies. Since the last 20 years, there are no new reports on this issue in Argentina.

Objectives: To analyze the factors associated with mortality, survival and causes of death in patients with SLE.

Methods: Longitudinal - multicenter study, in which 10 rheumatology centers of Argentina participated. Patients with SLE (ACR 1997 and / or SLICC 2012 criteria) with a minimum follow-up of 6 months monitored between January 2008 and December 2018 were included. Demographic, clinical, laboratory, therapeutic variables (treatments received during the evolution of the disease and within 60 days prior to death or last control); mortality, causes of death and survival at 5, 10 and 20 years were evaluated. Statistical analysis: descriptive statistics, Kaplan-Meier survival curves and Cox regression model.

Results: Three hundred and eighty two patients were included; 90% women and 82% mestizos. The mean of evolution time of SLE was 4.1 ± 6.7 years. The mean age at the last control or death was 37.2 ± 12.7 years, SLEDAI 3.2 ± 4.2 and SLICC 1.2 ± 1.9 .

Mortality was 12% (95% CI [8-15]) and the causes of death were: Infections (27), cardiovascular disease (6), SLE activity (3), catastrophic antiphospholipid syndrome (2) and other causes (8). Using the variables associated with mortality in different Cox regression models, the variables that increased the risk of death significantly were: renal involvement (RR 3.3), cardiac involvement (RR 2.7), central nervous system involvement (RR 2.1), arterial thrombosis (RR 2.3), hyperlipemia (RR 2.4), number of infections (RR 1.2) and last SLEDAI (1.1).

The time of HCQ use greater than 36 months decreased the risk of death in this cohort by 40% ($p = 0.03$). Prednisone (maximum dose and time) was not associated with mortality ($p = NS$). When analyzing the last treatment and adjusting it for final SLEDAI, HCQ was a mortality protection factor (RR 0.4) while the use of cyclophosphamide alone or associated with prednisone was a risk factor for death (RR 5.2).

Significant differences were found when analyzing the causes of death according to the SLE evolution time ($p = 0.017$): patients who died from infection had less evolution time (Me 2.25 years), than those who died due to cardiovascular causes (Me 10 years) or SLE activity (Me 15 years). In this cohort of patients, survival was 93% at 5 years, 88% at 10 years and 72% at 20 years.

Conclusion: Mortality in this series of patients was 12% and infection was the leading cause of death. The use of HCQ for a period greater than 36 months, decreased the risk of death 40%.

Disclosure of Interests: None declared

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FRI0606-HPR REMISSION IN SYSTEMIC LUPUS ERYTHEMATOSUS, WHAT IS THE IMPACT ON ACCUMULATED DAMAGE?

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Background: The objective of the treatment in rheumatic diseases is to achieved the remission or minimal disease activity of these patients. Previous studies in Systemic Lupus Erythematosus (SLE) showed that reaching remission had a positive impact on the prognosis of the disease.

Objectives: To determine the frequency of remission in a cohort of patients with SLE.