Objectives: To review the literature regarding different treatment modalities for CHB.

Methods: We performed a systematic review (August 2015) on Pubmed, using the following MeSH terms: "neonatal lupus", "congenital heart block"; results were restricted to human studies and English language. 1125 articles were assessed in abstract form and, after employing exclusion criteria, 267 original articles/case reports were evaluated in full text. Finally, 199 studies were included, reporting on a total of 492 CHB patients. All administered treatments were assessed on a patient-by-patient basis.

Results: A total of 243 cases reported data for CHB treatment: glucocorticoids (GCs) in 106 (43.6%) cases, intravenous immunoglobulin (IVIg) in 14 (5.7%) cases, and hydroxychloroquine in 5 (2.0%) cases. 21 patients received plasmapheresis treatment. 134 (55.1%) cases received no treatment. Both GCs and IVIg were mostly used in cases with complete atrioventricular (AV) block (74.1% and 61.5% of cases, respectively). Different types of GCs were used: Dexamethasone in 54 (58.6%) patients, prednisolone in 27 (29.3%) and betamethasone in 11 (11.9%) patients (total 92 patients with available data). Dosing schemes and regimens were also widely heterogeneous, with fifteen different regimens used by different centres (Table). Regarding IVIg treatment, six different algorithms were used. Similarly, five different plasmapheresis protocols were used.

Conclusions: There is no consensus in the treatment of CHB. Drug selection and dosing regimens have wide heterogeneity. More than half cases received no treatment. Of note, prednisolone has often been used, despite its inability to cross the placenta.

Disclosure of Interest: None declared

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AB0472 IMPACT OF DISEASE ON FAMILY AND SOCIAL LIFE IN WOMEN WITH SYSTEMIC LUPUS ERYTHEMATOSUS (SLE)

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Background: Systemic lupus erythematosus (SLE) is a chronic connective tissue disease with involvement of various organ systems and characteristically has a higher incidence in women than men¹. The disease, as well as its treatment, could have significant effects on the quality of life of lupus patients.

Objectives: Here, we aimed to investigate the impact of SLE on quality of the social and family life of women.

Methods: One hundred and twenty women diagnosed with SLE were included in the study. A questionnaire including questions about family and social relations were applied and demographic information, educational status, marital status, organ involvement and treatment data were obtained. The results of this study are preliminary and the study is still ongoing.

Results: One hundred and twenty patients were studied. The average age was 37 (± 10). 77 patients were married, 29 patients were single, 12 patients were divorced and 2 patients were widows. 29% of the patients were employed. 10.8% of the patients declared having difficulty in accepting their illnesses. 94.8% of the married patients had nuclear families. Relationship with partners and family members deteriorated in 15.5% of the married patients after the diagnosis of SLE. 10.7% of single patients ended their serious relationships and 28.6% developed negative thoughts about marriage after the diagnosis of SLE.

17.6% of the married patients were exposed to verbal or physical violence by their partners. 33% of the patients declared having worse social life compared to prior to diagnosis and 20.7% declared having poor relations with their friends due to their disease. 34.5% of the patients stated that they received psychological counseling after their diagnosis. No significant relationship was found between family problems, social activities, age and educational level.

Conclusions: Systemic lupus erythematosus is a connective tissue disease affecting various organ systems and leading to various comorbidities. Our results suggest that family and social relations deteriorate in lupus patients due to their illness independent of their age and educational level. Over one third of the patients received psychological counseling after diagnosis. Moreover, results of this study suggest that having a diagnosis of lupus has substantial impact on the marital considerations.

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AB0473 ANTI CCP AND ANTI MCV ANTIBODIES ARE MARKER OF ARTHRITIS IN SYSTEMIC LUPUS ERYTHEMATOUS & SCLERODERMA

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Background: Anti-citrullinated protein antibodies (ACPA) have been reported as

more specific serological markers of rheumatoid arthritis (RA). They provide a superior alternative to the rheumatoid factor (RF) test in laboratory diagnostics of RA (1). Different studies suggest that the enzymatic citrullination and the production of ACPAs may also be associated with other inflammatory arthritis-associated autoimmune diseases (2).

Objectives: Is to detect the presence of anti CCP and anti MCV antibodies in SLE & SSc and its correlation to radiological findings and disease activity.

Methods: Our study was included 70 SLE patients and 30 systemic sclerosis (SSc) patients diagnosed according to ACR classification criteria. After informed consent, all patients were subjected to detailed history taking, full clinical examination including rheumatological examination, laboratory investigations: included CBC, ESR, CRP with titer, urine analysis, renal & liver function, serum uric acid, Anti CCP antibodies & Anti MCV antibodies by ELISA. X- ray and U/S on both hands and knees and disease activity score using SLEDAI score for SLE patients and SSc disease activity score (Medsgar score) for SSc patients.

Results: In our study, anti CCP antibodies were found in 8 (11.4%) of SLE patients and 4 (13.3%) SSc patients, while anti MCV antibodies were found in 14 (20%) SLE patients and 8 (26.7%) of SSc patients. There is association between presence of anti CCP Abs and anti MCV Abs and a clinically evident arthritis in both SLE and SSc. Strong relationship between high CRP level and a severe arthritis and joint erosions was noticed in SLE patients. A significant radiological evident in the form of synovial hypertrophy and bony erosions were found using ultrasonography and plain X-ray with seropositive anti CCP and anti MCV Abs in both SLE and SSc patients. In our study, cut off value of anti CCP which was >12, with sensitivity of 70.42%, specificity of 60% positive predictive value of 80.6%, negative predictive value of 46.2% with diagnostic accuracy of 61.7%, and best cut off value of Anti MCV which was >11, with sensitivity of 98.46%, specificity of 30%, positive predictive value of 75.3%, negative predictive value of 90% with diagnostic accuracy of 60.2% in SLE & SSc.

Conclusions: There is a significant association between presence of anti CCP antibodies and anti MCV antibodies and the presence of evident arthritis either clinical or radiologically by using both x-ray and U/S on both hands and knees in SLE and SSc patients.

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AB0474 THYROID DYSFUNCTION IN SYSTEMIC LUPUS ERYTHEMATOSUS: ITS IMPACT AS A CARDIOVASCULAR RISK FACTOR

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Background: Systemic lupus erythematosus (SLE) is an autoimmune disease caused by immune system-mediated tissue damage. Thyroid function abnormalities and thyroid autoantibodies have been frequently described in patients with rheumatologic autoimmune diseases, such as SLE.

Objectives: The aim of the study was to assess thyroid function and anti-thyroid antibodies in SLE patients and evaluate the effects of the thyroid dysfunction on the clinical parameters, disease activity and assess its impact as a cardiovascular risk factor.

Methods: A total number of Fifty SLE female patients were selected. Triglycerides (TG), total cholesterol (TC), LDL and high density lipoprotein (HDL), Thyroid Stimulating Hormone (TSH), serum freeT3 (FT3), freeT4 (FT4), Serum thyroid peroxidase antibodies (TPOab) and serum thyroglobulin antibodies (TGAb) erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), IMT (intima-media thickness) of the carotid arteries and Echocardiography was done for all patients.

Results: There is a statistically significant correlation between SLE and thyroid disorder p. value <0.05. clinical hypothyroidism was the most common abnormality presented followed by subclinical hypothyroidism. There is a statistically significant correlation between IMT and thyroid disorder p. value <0.05. There is a statistically significant correlation between cardiac valves disorder and thyroid disorder T, we found a statistically significant correlation between pericardial effusion and thyroid disorder p. value <0.05.

Conclusions: we conclude that thyroid disorder is more common in lupus patients especially those in exacerbation and +ve for antithyroid Ab and those with thyroid dysfunction had increased cardiovascular risk. These patients should be investigated for Lipid profile echocardiography and neck US for detection of early atherosclerosis and other CVD. Those with thyroid dysfunction had increased cardiovascular risk.

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AB0475 CHANGES IN HEART RATE VARIABILITY REFLECT CHANGES IN CLINICAL STATUS AND PATIENT REPORTED OUTCOMES IN SYSTEMIC LUPUS ERYTHEMATOSUS: A LONGITUDINAL ANALYSIS

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Background: We previously observed an association between systemic lupus erythematosus (SLE) disease activity and heart rate variability (HRV) with a preliminary observation of consistency between these two measures when disease activity changed between two timepoints (1).

Objectives: To prospectively test the hypothesis that HRV reflect longitudinal changes in clinical status and patient reported outcomes.

Methods: The current project evaluated HRV measurements using a 5 min ECG in SLE patients who completed a minimum of 2 visits in an ongoing clinical trial. HRV parameters were calculated in the time domain (RMSSD and pNN50) and the frequency domain [high frequency (HF) as well as low frequency to high frequency (LF/HF) ratio]. A mixed effects linear model, with generalized estimating equations to account for clustering of visits for each patient, was used to compare changes in HRV between paired visits and to examine linear associations between HRV parameters and clinical scores. All models were adjusted for baseline values of each HRV parameter.

Results: Forty nine patients (age 44.9±11.7, 46 female), followed in a total of 413 paired visits (median time between visits 1 month), were included. Global BILAG score was inversely associated with RMSSD (regression coefficient $\beta = -1.39 \pm 0.01$; $p < 0.0001$). BILAG, SLEDAI and PGA were directly associated with the LF/HF ratio ($\beta = 0.96 \pm 0.02$; $p < 0.0001$, 0.42 ± 0.10 ; $p < 0.0001$ and 0.83 ± 0.09 ; $p < 0.0001$, respectively). Changes in BILAG were inversely associated with changes in RMSSD and pNN50 ($\beta = -7.0 \pm 1.9$; $p = 0.003$ and -1.6 ± 0.04 ; $p < 0.0001$, respectively). BILAG changes were also directly associated with changes in the LF/HF ratio ($\beta = 0.78 \pm 0.05$; $p < 0.0001$). Categorical improvement, defined as ≥ 1 letter grade improvement in BILAG and no new BILAG A or B scores, occurred in 77 (19%) visit pairs (group 1) and either no improvement or worsening in 335 (81%) group 2. RMSSD and HF increased in group 1 compared to group 2 (group difference = 33.3 ± 10.1 ; $p = 0.001$ and -30.9 ± 4.1 ; $p < 0.0001$, respectively), and the LF/HF ratio decreased in group 1 compared to group 2 (group difference = 3.1 ± 0.8 ; $p = 0.002$). Changes in Physical Component Summary (PCS) of SF36v2 were inversely related to changes in SLEDAI and PGA ($\beta = -0.39 \pm 0.14$; $p = 0.006$ and -0.19 ± 0.02 ; $p < 0.0001$, respectively). Changes in Mental Component Summary (MCS) were inversely related to changes in BILAG, SLEDAI and PGA ($\beta = -0.23 \pm 0.07$; $p = 0.0001$, -0.31 ± 0.10 ; $p = 0.002$ and -0.08 ± 0.03 ; $p = 0.008$, respectively). PCS was related to HF ($\beta = 0.67 \pm 0.28$, $p = 0.01$) whereas MCS was inversely related to the LF/HF ratio ($\beta = -0.11 \pm 0.03$, $p = 0.0001$). Changes in PCS were related to changes in pNN50 ($\beta = 0.21 \pm 0.05$, $p = 0.0001$) and changes in MCS were related to changes in HF ($\beta = 1.57 \pm 0.18$; $p < 0.0001$).

Conclusions: Changes in HRV reflect changes in clinical status and patient reported outcomes in patients with SLE. These data suggest that HRV may be a simple non-invasive tool used to gauge or predict clinical improvement in SLE. Further studies are warranted.

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AB0476 INNER EAR INVOLVEMENT IN SYSTEMIC RHEUMATIC DISEASES

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Background: Patients with systemic rheumatic diseases have increased prevalence of sensorineural hearing loss (SNHL). Detection of cochlin specific antibodies has been reported in patients with idiopathic sensorineural hearing loss. Interestingly, cochlin has been shown a stronger link to autoimmune hearing loss.

Objectives: Objective of this cross-sectional study was to calculate the prevalence of SNHL in patients with systemic rheumatic diseases and to detect human cochlin antibodies in their sera.

Methods: This was a prospective study. Patients older than 18 year old who gave informed consent and fulfilled the criteria of American College of Rheumatology for rheumatoid arthritis (RA), systemic lupus erythematosus (SLE), Sjogren's

syndrome (SS) and systemic sclerosis (SSc) were included. Complete head and neck clinical examination was performed, including otoscopy, nasendoscopy and hearing investigation with pure tone audiometry (250Hz -8000Hz). All medical treatments as well as Disease activity score (DAS) 28 for RA and SLE disease activity index (SLEDAI) for SLE were documented. An average tone loss was calculated, taking as a starting point the loss in dB at various frequencies according the American Committee on Hearing and Equilibrium Guidelines for Meniere's disease and also recommendation 02/1 of "Bureau International d'Audiophonologie" (BIAP). Blood samples of the patients were tested for the presence of IgG anti-cochlin antibodies (COCH-IgG). The results were compared with those of sex and age-matched healthy subjects.

Results: We studied 133 patients (60 with RA, 41 with SLE, 24 with SS and 8 with SSc) and 133 healthy subjects. 61.4% of patients reported vertigo, 41% hyperacusis, 39% hearing loss, 38% tinnitus, 37.9% headache and 2.1% sensation of ear pressure with unremarkable otoscopy. The prevalence of SNHL was increased in patients affected by RA, SLE, SS and SSc in comparison to healthy controls (66.6%, 31.71%, 54.17% and 75% respectively). The average hearing thresholds (AHT) calculated using BIAP recommendation 02/1 were significantly increased in RA compared to SLE. AHT were also increased in patients with RA and secondary SS but without statistical significance compared to RA patients. There was a statistically significant correlation between AHT and DAS28 in RA. No correlation observed between AHT and SLEDAI. COCH-IgG were detected in two samples (one patient with RA and one with RA and SS).

Conclusions: Cochlin has been shown to have a stronger link to autoimmune hearing loss, but our study concluded no correlation of hearing loss with human cochlin IgG (COCH). Additional prospective studies are needed to elucidate its pathogenesis.

Disclosure of Interest: None declared

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AB0477 VITAMIN D STATUS, SYSTEMIC LUPUS ERYTHEMATOSUS ACTIVITY AND ENDOTHELIAL DYSFUNCTION

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Background: Systemic lupus erythematosus (SLE) is an autoimmune inflammatory disease, in which cardiovascular complications due to premature and accelerated atherosclerosis represent a serious problem. Endothelial dysfunction is the first step in the atherosclerosis development. Low levels of vitamin D have a high prevalence in lupus patients, correlating with high prevalence of cardiovascular diseases in these patients.

Objectives: The aim of this study was represented by the assessment of endothelial dysfunction in patients with active systemic lupus erythematosus, and correlations of this with SLE activity and vitamin D status.

Methods: The study was performed on a group of 35 female patients with active systemic lupus erythematosus. In all the patients were assessed: SLE activity using SLEDAI (SLE Disease Activity Index), vitamin D status and endothelial dysfunction by means of flow-mediated dilation (FMD). Data were presented as mean $\pm$ standard deviation. The statistically analysis was performed using Pearson's test, $p < 0.05$ was considered statistically significant.

Results: The mean age of the studied patients was 33.68±8.55 years, and the average duration of SLE was 8.91±5.29 years. The assessed parameters had the values: SLEDAI 9.02±4.51, vitamin D 12.79±2.45 $\mu\text{g/l}$ (4 patients had vitamin D deficiency, and 31 patients had vitamin D insufficiency), and FMD 9.26±2.34%. There were significant correlations between vitamin D levels and FMD ($r = 0.4517$, $p = 0.003$), and between vitamin D levels and SLEDAI ($r = -0.6297$, $p = 0.00025$).

Conclusions: Low values of vitamin D levels were present in all the studied patients, correlating with the systemic lupus erythematosus activity, and endothelial dysfunction.

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AB0478 COMPARATIVE STUDY BETWEEN PATIENTS WITH NORMAL AND OVERWEIGHT IN A COHORT OF SYSTEMIC LUPUS ERYTHEMATOSUS FROM ARGENTINA

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Background: Systemic lupus erythematosus (SLE) have an increase cardiovascular risk, worsened by overweight and obesity. Increased BMI is associated with other severe complications and comorbidities as lupus nephritis, hypertension, insulin resistance and dyslipemia. Body weight is a modifiable risk factor.

Objectives: To determine the frequency of overweight and obesity in patients with SLE and their impact on this disease