REFERENCE:
[1] Chen Chu, Nan Zhou, Huayong Zhang, et al. Added Value of Parotid R2* Values for Evaluation of Sjögren Syndrome: A Preliminary Study. J Comput Assist Tomogr 2017;41(4):547–552.

Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2018-eular.6214

THU0377 INFLUENCE OF UNDIAGNOSED VERTEBRAL FRACTURES ON ORGAN DAMAGE IN WOMEN WITH SYSTEMIC LUPUS ERYTHEMATOSUS

[1,2]S. Shkireeva, O.M. Lesnyak[1], E.G. Zotkin[2]. *[1]North-Western State Medical University named after I.I. Mechnikov, Saint-Petersburg; [2]Research Institute of Rheumatology named after V.A. Nasonova, Moscow, Russian Federation*

Objectives: To investigate the influence of asymptomatic vertebral fractures on organ damage and to identify risk factors associated with critical organ damage in women with systemic lupus erythematosus (SLE).
Methods: 197 women with SLE were included in this study. Bone mineral density (BMD) measurements of the hip and spine were performed using the dual energy X-ray absorptiometry (DXA). Vertebral fracture assessment (VFA) was done for detection vertebral fractures using a method described by Genant. Accumulated damage was scored using the SLICC/ACR damage index (SDI). Critical organ damage was defined as SDI>3.
Results: Vertebral fractures were developed in 55 (27.9%) women with SLE. Half of all women with SLE (n=31, 15.7%) had asymptomatic vertebral fractures which were diagnosed for the first time in this study. 131 (66.5%) women with SLE had critical organ damage (SDI>3). Average SDI before and after morphometry was 4,4±2,2 and 5,3±2,6 respectively. Multivariate analysis showed age (p=0,01), cumulative dose of glucocorticoids (p=0,00005), previous therapy with cyclophosphamide (p=0,04) were significantly associated with critical damage in women with SLE.
Conclusions: Detection of vertebral fractures helps in counting accumulated organ damage correctly. VFA in the combination with DXA in women with SLE is an effective method for diagnostic asymptomatic vertebral fractures.
Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2018-eular.5462

THU0378 WIRE-LOOP LESION IS ASSOCIATED WITH SEROLOGICAL IMMUNE ABNORMALITY, BUT NOT RENAL PROGNOSIS IN LUPUS NEPHRITIS

T. Zoshima, S. Hara, M. Kawano. *Division of Rheumatology, Kanazawa University Hospital, Kanazawa, Japan*

Background: International Society of Nephrology/Renal Pathology Society (ISN/RPS) 2003 Classification of Lupus Nephritis (LN) defines wire-loop lesion (WL) as an active lesion (AL). In it, LN patients with WL are classified as class III or IV, which are associated with a poor prognosis and recommended to be treated by intense immunosuppressive therapy including corticosteroid, cyclophosphamide, mycophenolate mofetil and other immunosuppressants.[1] However, among AL, few reports have focused on the clinicopathological impact of WL on serological immune abnormality and renal prognosis.
Objectives: To identify clinicopathological characteristics associated with WL, and to clarify whether WL predicts renal prognosis of LN.
Methods: We enrolled 117 Japanese LN patients subjected to renal biopsy in 11 hospitals from 2000 to 2017. We measured clinical findings at the time of renal biopsy, including creatinine (Cr), estimated glomerular filtration rate (eGFR), total protein (TP), IgG, IgA, IgM, C3, C4, CH50, anti-nuclear antibodies (Abs), anti-double strand DNA (dsDNA) Abs, anti-Sm Abs, anti-RNP Abs in the sera, urinalysis, and presence of comorbidities (antiphospholipid antibody syndrome, hypertension, hyperlipidemia, diabetes mellitus, and hyperuricemia). Renal biopsy findings were classified by ISN/RPS classification including AL and chronic lesions (CL). Immune deposit was evaluated by immunofluorescence. We also measured Cr and eGFR at the last patient visit, and recorded medications prescribed for LN. Chronic kidney disease (CKD) was defined as eGFR <60 ml/min/1.73 m2. In class III or IV patients, we retrospectively compared these clinical and histological findings between those with WL (WL +group) and without WL (WL- group).
Results: Of 117 patients, 94 (81.2%) were classified as class III or IV (78 females; mean age 41.3 years; observational period 5.8±5.2 years). WL was found in 27 of them (28.7%). Although there was no significant difference in renal function (eGFR; 81.1±31.4 vs 80.6±34.4 ml/min/1.73 m2, p=0.91), WL +group had higher titer of serum anti-dsDNA Abs (median values; 205 vs 67 IU/ml, p=0.011) and lower level of TP (5.7±1.2 vs 6.3±1.0 g/dl, p=0.025) than WL- group. There were no significant differences in any other clinical findings. In histological findings, most WL (96.3%) were accompanied by other ALs such as endocapillary proliferation and/or crescent formation. WL +group had a higher frequency of class IV, AL and IgM deposit, while CL did not differ between the two groups. Linear regression analysis revealed associations between anti-dsDNA Abs and IgM deposit and WL (β=0.48, p<0.01; β=0.26, p=0.016, respectively). There was no difference in the latest renal function (eGFR; 76.9±27.5 vs 74.0±29.5 ml/min/1.73 m2, p=0.72) between the two groups. Cox regression analysis revealed significant associations between AL such as necrosis, CL, initial eGFR, HT, HL and medication for LN with CKD at the last visit, but not with WL (p=0.13).
Conclusions: WL was associated with serum anti-dsDNA Abs, but not with renal prognosis, suggesting that WL reflects immune abnormality, but is not an independent factor predictive of the renal prognosis of LN. Although WL is defined as an AL in the present classification, this may need to be revised to better reflect its clinical impact.

REFERENCE:
[1] Ann Rheum Dis 2012;71:1771–82.

Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2018-eular.4408

THU0379 CORONARY ARTERY DISEASE IN SLE: A CASE-CONTROLLED ANGIOGRAPHIC STUDY

[1]T. Chazal, M. Kerneis[2], P. Guedeney[2], J. Haroche[1,3], A. Mathian[1], P. Ruffat[4], F. Cohen-Aubart[1,3], G. Montalescot[2,3], Z. Amoura[1,3]. *[1]Service de Médecine interne 2; [2]Service de Cardiologie, Hopital Pitié Salpétrière; [3]Sorbonne Université – Université Pierre et Marie Curie Paris VI; [4]Département d'information médicale, Hopital Pitié Salpétrière, PARIS, France*

Background: Coronary artery disease (CAD) is a major cause of morbidity and mortality in systemic lupus erythematosus (SLE) patients.[1] Whether SLE is a cardiovascular risk factor *per se* remains controversial.
Objectives: This study was conducted to determine the clinical and angiographic characteristics of SLE patients with CAD and to compare them to those of control non-SLE patients with CAD.
Methods: All SLE patients who underwent a coronary angiography procedure in our tertiary centre between 2005 and 2016 were enrolled in the study. Those without significant atherosclerosis (stenosis >50%) were excluded. Each SLE patient was matched by sex and age at catheterization with seven non-SLE controls with significant CAD. Angiographic characteristics were reviewed by two independent cardiologists.
Results: Among the 73 SLE patients who underwent coronary angiography, 28 patients had at least one significant coronary atherosclerotic lesion. The SLE patients were predominantly female (75%, median age of 55.7 years) with a long-standing disease duration (median SLE duration of 20.5 years). Ten patients (35%) had renal involvement, and 9 patients (32%) had antiphospholipid syndrome. The patients with SLE had fewer cardiovascular risk factors (1.6 vs 2.1, p=0.01) than the controls, including lower body mass index (23.8 kg/m² vs 24.98 kg/m², p=0.03), less frequent family history of coronary artery disease (3.5% vs 18%, p=0.049) and less diabetes (7% vs 22%, p=0.07) than controls. However, SLE patients were more likely to have chronic kidney failure (35% vs 20%, p=0.07) and to need hemodialysis (17% vs 2%, p=0.001). The SLE patients more often had multivessel disease (50%).
Conclusions: While they have fewer cardiovascular risk factors, patients with SLE experience more severe CAD than non-SLE patients, suggesting that SLE, associated conditions or the treatments themselves play key roles in the development of atherosclerosis.[2]

REFERENCES:
[1] Lee YH, Choi SJ, Ji JD, Song GG. Overall and cause-specific mortality in systemic lupus erythematosus: an updated meta-analysis. Lupus 2016 Jun;25(7):727–734.
[2] Schoenfeld SR, Kasturi S, Costenbader KH. The epidemiology of atherosclerotic cardiovascular disease among patients with SLE: a systematic review. Semin Arthritis Rheum 2013 Aug;43(1):77–95.

Disclosure of Interest: None declared
DOI: 10.1136/annrheumdis-2018-eular.5560