($r=0.313$, $p=0.006$). Furthermore, Hsp90 was increased in patients with interstitial lung disease (ILD) compared to those without ILD [12.8 (10.2–17.9) vs. 10.3 (8.6–16.6) ng/mL, $p=0.045$] and was negatively associated with functional parameters of ILD: FVC ($r=-0.299$, $p=0.011$), FEV1 ($r=-0.256$, $p=0.031$), DLCO ($r=-0.303$, $p=0.009$) and SpO₂ ($r=-0.317$, $p=0.038$). In addition, in patients with dcSSc, Hsp90 levels positively correlated with the mRSS ($r=0.437$, $p=0.006$). Hsp90 concentrations were not significantly affected by other main clinical parameters of SSc.

Conclusions: We demonstrated higher plasma levels of Hsp90 in SSc patients compared to healthy controls. Concentrations of extracellular Hsp90 increase with higher inflammatory activity, with deteriorated lung functions in ILD and also with the extent and severity of the skin involvement in patients with diffuse cutaneous SSc. These data further highlight the role of Hsp90 as a significant regulator of fibroblast activation and tissue fibrosis in SSc.

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SAT0494

CLINICAL AND ELECTROPHYSIOLOGICAL DIAGNOSIS OF SYMMETRICAL POLYNEUROPATHY IN SYSTEMIC SCLEROSIS: STUDY FROM A SINGLE TERTIARY CENTRE IN MALAYSIA

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Background: Peripheral neuropathy (PN) in systemic sclerosis (SSc) is an under recognised non-lethal burden with its prevalence from 0.01% to 28%¹. Previous studies have been limited by small sample size, variable diagnostic criteria and different populations studied.

Objectives: The aim of this study is to determine the prevalence of symmetrical PN in SSc patients and to identify the associated factors that can predispose to PN in SSc.

Methods: 59 SSc patients from University Malaya Medical Centre participated in this cross-sectional study. Clinical symptoms/signs of PN were assessed using modified Total Neuropathy Score (TNS). Nerve conduction studies (NCS) were carried out on the upper and lower limbs. Diagnosis of symmetrical polyneuropathy was defined as combined TNS score ≥ 2 and abnormal NCS parameters in at least 2 nerves including the sural². Focal neuropathy was defined as abnormal NCS of a nerve other than the sural nerve (radial, median, ulnar, common peroneal).

Results: Majority were females (54, 91.5%) and had limited cutaneous SSc (44, 74.6%). Mean age was 55.7 (SD ± 13.1) years while mean duration of disease (non-Raynaud's disease onset) was 8.74 years (SD ± 8.09) (range 1 to 44 years). Out of 59 patients, 38 (64.4%) had TNS ≥ 2 . On NCS, 17 (31.5%) and 12 (22.2%) had findings of symmetrical polyneuropathy and focal neuropathy respectively. A total of 14 (23.7%) SSc patients were diagnosed to have symmetrical polyneuropathy. Lower haemoglobin level was significantly associated with symmetrical polyneuropathy ($p=0.047$) after adjustment for potential confounding variables. Serum vitamin B12 was normal in all subjects with symmetrical polyneuropathy. No correlation was seen in SSc related comorbidities (diabetes mellitus and kidney disease), serum fasting blood sugar, creatinine and MCV, as well as disease markers such as skin fibrosis (MRSS skin score), specific organ manifestations, Raynaud's or vasculopathy, SSc specific auto-antibodies and treatment received.

Demography	No polyneuropathy n=45 (76.3%)	Polyneuropathy n=14 (23.7%)	p value
Mean age (y.o $\pm$)	53.6 $\pm$ 13.22	62.57 $\pm$ 10.69	0.025
Sex			
Female	45 (76.3)	14 (23.7)	0.325
Male	5 (100)	0 (0)	
BMI kg/m ² (mean)	22.9 $\pm$ 5.94	21.0 $\pm$ 5.13	0.736
Diffuse SSc	10 (22.2)	4 (28.5)	0.722
Limited SSc	35 (77.7)	10 (71.4)	0.316
MRSS score (mean)	10.29 $\pm$ 8.02	8.36 $\pm$ 4.23	0.594
SSc duration (mean)	8.97 $\pm$ 8.78	8.00 $\pm$ 5.51	0.803
Haemoglobin (mean) (g/L)	12.36 $\pm$ 1.33	11.2 $\pm$ 1.25	0.010
MCV $\geq$ 97 (fl)	4 (8.9)	3 (21.4)	0.175
Creatinine (median) (umol/L)	55 $\pm$ (IQR 45–60)	61.5 $\pm$ (IQR 49–75)	0.111

Fasting blood sugar (mean) (mmol/L)	4.32 $\pm$ 1.16	5.67 $\pm$ 2.46	0.095
ESR (mean) (mm/hr)	33.7 $\pm$ 20.65	44.23 (19.6)	0.068

Neurological Components

Conclusions: The prevalence of PN in a Malaysian SSc cohort is similar to other studies (23.7%). Lower haemoglobin level was significantly associated with symmetrical polyneuropathy in SSc.

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SAT0495

PLASMA D-DIMER CONCENTRATION, MACROVASCULAR DISEASE AND MORTALITY IN PATIENTS WITH SYSTEMIC SCLEROSIS

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Background: Plasma d-dimer (DD) has proven to be a reliable marker of a systemic prothrombotic state and its measurement might be helpful in predicting cardiovascular events and even mortality across a broad variety of diseases. An association between high levels of DD and macrovascular disease, diffuse cutaneous involvement and active disease has been suggested in patients with SSc.

Objectives: To determine the usefulness of DD measurement as a marker of macrovascular disease and mortality in patients with SSc. To explore its relation with other features and biomarkers of SSc.

Methods: Descriptive ambispective observational study. We included, consecutively from 2010 to 2015, SSc patients controlled in a tertiary hospital. We gathered demographic, clinical, and analytical variables, including DD levels measured by turbidimetric immunoassay (ACL TOP 700 CTS, Werfen Spain). Other variables were collected retrospectively from the electronic medical record. We explored the extracranial branches of the carotid artery (ESAOTE MyLab XV70, 7–12 MHz linear probe, software ^{RF}QIMT) measuring intima media thickness (IMT) by radiofrequency, and the presence of atheroma plaques, as per the Mannheim consensus, was registered. The ankle-brachial index (ABI) was measured by a Vascular Surgeon. We considered an IMT>900 μ and/or presence of atheroma plaque and/or an ABI <0.9 as macrovascular damage. We prospectively collected mortality until dec-2017. Statistical analysis was performed using SPSS 17.0 software.

Results: 115 patients were included consecutively, of which finally 100 were studied (91 women, 9 men), with a mean age of 60.2 years (SD 15). Mean SSc evolution time was 13.9 years (SD 11.2). LSSc was most frequently diagnosed (50%), followed by DSSc (18%), SSc without scleroderma (17%), overlap syndrome (9%) and pre-SSc (6%). 37% of patients were hypertensive, 45% dyslipidemic, and 7% were diabetic. Overall, 40% had macrovascular damage. The mean values of DD were 437.6 ng/mL (SD 683.5), 60% of the patients having levels of DD (>250 ng/mL). During follow up, there were 16 deaths, 50% due to vascular events. Baseline high levels of plasma DD were associated to macrovascular damage and ischaemic digital ulcers, together with advanced age, arthritis, inflammation biomarkers, HTA, sPAP, lower DLCO% and coexistence of