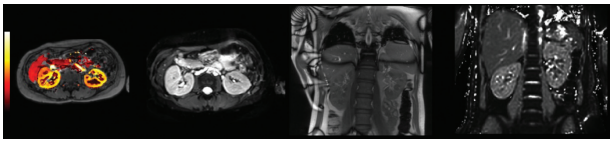

Figure 1. Multi-modality imaging from a representative LN patient. Left: Map of the initial rate of enhancement (DYNAMIKA™) from DCE-MRI showing the degree of perfusion (the white-yellow colors correspond to increased and the redder colors decreased perfusion) in which decreased perfusion can be seen in the anterior pole of the right kidney (arrow); Left center: DWI sequence that shows diffusion; Right center: T1rho illustrating fibrosis; and Right:T2*Map/BOLD to investigate tissue oxygenation within the renal medullary tissue.

Conclusion: The initial assessment of 5 LN subjects has established the feasibility of multi-modality imaging as a tool to evaluate LN in a multi-center study. By assessing functional and structural MRI outcomes and correlating them to clinical data, this study will provide essential preliminary evidence on the value of multi-modality imaging in diagnosis and evaluating the response to treatment of LN patients.

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AB0535 FACTORS RELATED TO FATIGUE IN SYSTEMIC LUPUS ERYTHEMATOSUS: A COHORT CROSS-SECTIONAL STUDY

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Background: Fatigue is the most prevalent symptom in Systemic Lupus Erythematosus (SLE) as it is present in up to 90% of patients; it is considered to be the most disabling symptom in around half of the patients [1,2]. Its aetiology is multi-factorial and there is conflicting evidence on the relationship between fatigue and SLE disease activity, and between fatigue and vitamin D deficiency. The Ad Hoc Committee on Systemic Lupus Erythematosus Response Criteria for Fatigue recommended the Fatigue Severity Scale (FSS) for the measurement of fatigue in SLE [2,3].
Objectives: The aim of the study was to characterise the relationship between fatigue and other factors, including disease activity, vitamin D level, pain, depression, anxiety, sleep quality and exercise in SLE. Moreover the prevalence of fatigue in the Maltese population of SLE patients was established.
Methods: 92 SLE patients, who fulfilled the SLICC classification criteria for SLE, gave informed consent to participate in the study. This consisted of an interview, blood and urine tests, and filling the questionnaires: Fatigue Severity Scale (FSS), visual analogue scale (VAS) for fatigue, Hospital Anxiety and Depression Scale (HADS), VAS for pain, Pittsburgh Sleep Quality Index (PSQI) and modified Health Assessment Questionnaire (mHAQ). SLE disease activity was measured by SLE disease activity index-2K (SLEDAI-2K). Approval to carry out this study was obtained from the University Research Ethics Committee.
Results: The mean age of the cohort studied was 46.9 years. 92.4% were females and the median disease duration was 13 years. 56.5% had an abnormal level of fatigue (FSS >3.7) and the median FSS was 4.17. Fatigue measured by FSS, had a significant correlation with VAS Pain ($R=0.536$, $p<0.001$), HADS-D ($R=0.535$, $p<0.001$), HADS-A ($R=0.395$, $p<0.001$), PSQI ($R=0.551$, $p<0.001$) and mHAQ ($R=0.435$, $p<0.001$). VAS fatigue had a significant correlation with SLEDAI-2K ($R=0.247$, $p=0.018$). There was no significant relationship between fatigue and vitamin D level or regular exercise. ANCOVA analysis showed that fatigue measured by FSS and VAS fatigue was significantly dependant on depression measured by HADS-D ($p<0.001$) and VAS pain ($p<0.001$).
Conclusion: Fatigue is highly prevalent in SLE patients. This study identified a number of factors that are significantly related to fatigue; of these it is most strongly dependent on depression and pain. This suggests that the aetiology of fatigue in SLE is multi-factorial and that in SLE patients reporting fatigue, the underlying cause needs to be identified and treated.

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AB0536 PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS AND LYMPHOMA AT A TERTIARY HOSPITAL: DESCRIPTIVE ANALYSIS OF NINE PATIENTS

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Background: Evidence of an increased risk to develop haematological malignancy, and especially non-Hodgkin's lymphoma (NHL) in autoimmune diseases, has been gathered since the 1970s. In the last decade studies from SLE cohorts have consistently shown a markedly increased risk of NHL.
Objectives: To analyze clinical and disease characteristics in SLE patients who developed a lymphoma during follow-up, as well as to define characteristics of the lymphoma and its evolution.
Methods: Retrospective observational, longitudinal study conducted in a tertiary hospital. Medical records of 362 patients with $\geq$4 SLICC classification criteria of SLE were reviewed, including those with lymphoma diagnosis. Demographic and clinical data, comorbidities, SLE manifestations and therapy, data related to lymphoma and outcome were collected. Descriptive statistic analysis with measures of central tendency and measures of variability was performed.
Results: Of the 362 SLE patients, 9 (2.5%) were diagnosed of lymphoma, of which 100% female. Mean age at SLE diagnosis was 34 y.o (SD 11) and average duration from SLE diagnosis to lymphoma was 17 years (SD 14). 7 patients were caucasian and 2 hispanic. Observed comorbidities were hypertension (6 pt, 67%), diabetes (2 pt, 22%), dyslipidemia (3 pt, 33%), HBV infection (1 pt, 11%) and active smoking (6 pt). No malignancy history was detected. Most frequent SLE features were haematological (9 pt, 100%), joint (5 pt, 56%) and skin (5 pt) involvement. The serious ones were: 3 patients with haemolytic anaemia (1 of them, platelets <20000), 2 epilepsia (1 of them with CNS vasculitis), 1 glomerulonephritis, 1 pulmonary hypertension and 1 hemophagocytic syndrome. Only 1 patient had overlap with Sjögren's syndrome. At the time of lymphoma diagnosis, 7 patients were on steroids, 4 on immunosuppressants (2 mycophenolate, 1 azathioprine and 1 rituximab) and 3 on antimalarials (Table 1). Mean age at lymphoma diagnosis was 51 y.o (SD 10). 5 patients (56%) had diffuse large B-cell lymphoma (DLBCL), 1 had NHL, 1 had Hodgkin's lymphoma, 1 had mantle B-cell lymphoma and 1 had MALT lymphoma. Only 1 patient, of 4 with available data, had EBV positive in the tissue. 7 patients (78%) received chemotherapy and 2 patients completed treatment with autologous peripheral stem-cell transplantation. Three patients died, 2 due to lymphoma and one due to other causes (severe flaccid paralysis, Miller Fisher syndrome). Overall survival after lymphoma diagnosis was 8 years (SD 6).
Conclusion: In our patients, unlike that reported in the literature, lymphoma diagnosis was in SLE with longer duration of the disease, and all cases were female. Most frequent subtype was NHL, and all patients had previous haematological manifestations. Regarding previous SLE treatments, 5 patients had been exposed to immunosuppressants.