transglutaminase (IgA) antibodies. Six patients were DQ2 positive.

After being diagnosed of CD and starting the GFD, SLE patients seem to improve especially the leukopenia, lymphopenia and oral aphtosis, as well as SLEDAI score (showed in attached graphics).

Conclusions SLE patients with CD diagnosis and who started a GFD, showed improvement of leukopenia, lymphopenia, oral aphtosis and even SLEDAI.

In SLE patients with recurrent oral aphtosis and/or gastrointestinal unspecific symptoms, CD should be considered, but since serological screening displays a low sensitivity, HLA testing could be helpful. Gastroscopy should be considered, with biopsy and flow cytometer in uncertain cases. Even though, further studies, especially looking for different clinical profiles and longer observational period are needed.

P62 POLY-AUTOIMMUNITY FREQUENCY IN SLE PATIENTS FROM A TERTIARY HOSPITAL

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Background/Purpose Poly-autoimmunity (PAI) is the presence of more than one Autoimmune Disease (AID) in one patient. The coexistence of Systemic Lupus Erythematosus (SLE) with other AIDs is a clinical challenge due to is one of the issues not yet elucidated in medical practice.

We aimed to determine PAI frequency in the context of SLE patients reported in a tertiary hospital.

Methods Cross-sectional observational study with systematic revision of electronic clinical records of SLE patients with other AIDs (from 2014 to 2018) was performed. Demographic, clinical and immunological data were collected.

Results Of 261 SLE patients, 48 (18.39%) had PAI. Mean age was 51.19 (15.35) years (93.75% were female). 2 patients from the 48 (4.16%) had PAI with three AIDs. The 75% of cases developed SLE as the first AID. The mean age at diagnosis of the first AID was 35.52 (15.33) years and mean age at diagnosis of the second AID was 43.75 (16.31) years. A mean difference of 8.31 (9.24) years between the first and second AIDs debut was observed.

The most frequent AIDs registered that go along with SLE are Antiphospholipid Syndrome (APS)(39.58%), Sjögren Syndrome (SS)(31.25%), and Rheumatoid Arthritis (RA) (16.67%). Moreover, in two cases a third AID was registered: SLE-SS-APS and SLE-APS-autoimmune-thyroiditis.

In the SLE-APS group, SLE was the AID of debut in the 89.47% of cases, instead of SLE-RA group with a 62.5%. The SLE-APS group showed a 47.37% of cases with positive antiphospholipid antibodies and 64.71% positive lupus anticoagulant. In the SLE-RA group a 71.43% and 66.67% positive rheumatoid factor and antiCCP antibody was reported.

Conclusions 18.39% of patients with PAI in our group of SLE patients was observed, mostly with the SLE as the first AID developed. The most frequent association of AIDs in SLE cases were with APS, SS and RA.

P63 ABNORMAL DISTRIBUTION OF CD27⁺ IGD⁺ UNSWITCHED AND CD27⁺ IGD⁻ SWITCHED MEMORY B CELLS IN SLE PATIENTS EXPOSED TO ORGANIC SOLVENTS

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Background Some studies in animal models, support an association between occupational exposure to Organic Solvents (OS) and Systemic Lupus Erythematosus (SLE). The specific physiopathological changes that these chemicals could induce to accelerate an autoimmune response are not known. Dysregulation of B cells is central in SLE, but very little is known on how OS exposure could influence it. This study aimed to examine the distribution of B cell subsets on Healthy Controls and SLE patients occupationally exposed to OS.

Methods 40 SLE patients who met ACR criteria and 17 Healthy Controls were recruited and classified as occupationally exposed or not to OS. Cryopreserved peripheral lymphocytes were analyzed by multiparametric Flow Cytometry using CD3, CD19, CD27, and IgD markers.

Results SLE patients exposed to OS had increased frequencies of CD27⁺ Switched Memory (SWM) cells. This change was associated with a specific OS like degreasers and ketones. Additionally, the few HC exposed to OS showed a decrease in Unswitched (USM) cells, with similar frequencies as those seen in SLE patients.

Conclusions Exposure to OS increased SWM cells on SLE patients and decreased USM cells on Healthy Controls. The influence of OS on SWM differentiation may be mediated through T cells. Previous reports of exposure to Trichloroethylene (a common OS), showed increased CD4⁺ T cell activation and secretion of INF- γ , this causes excessive T follicular helper development and germinal center formation in mice that could induce abnormalities in B cell subsets, and a similar mechanism may operate in OS exposed patients. Further research is needed to verify this hypothesis.

P66 UTILIZATION OF GEOGRAPHIC INFORMATION SYSTEM (GIS) MAPPING TO ASSESS DISSEMINATION OF A LUPUS COMMUNITY BASED HEALTH AWARENESS MODEL

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Background We used a Popular Opinion Leader (POL) model, which leverages community leaders' social networks to disseminate health information and change norms in vulnerable communities. We established an academic-community partnerships in Chicago and Boston to increase knowledge about lupus and promote early care-seeking behaviors among African American