and phenotypic characterization was performed. All experiments were conducted by flow cytometry.

Results: KLRG1 was expressed in a statistically significant lower amount on total NK cells from SLE patients compared to HS ($p=0.0007$). Analysis of CD56^{dim} and CD56^{bright} populations showed less amount of KLRG1 in SLE patients compared to HS ($p=0.0051$ and $p=0.0068$) (figure 1). The low levels of KLRG1 on NK cells inversely correlated with the SLEDAI-2K ($p=0.029$) and were inversely associated with the presence of arthritis ($p=0.029$), arthralgias ($p=0.0024$) and hematological disorders ($p=0.025$). A direct association between KLRG1 expression on NK cells and the use of HCQ was found ($p=0.001$). Analyzing the two main subpopulations of NK cells, we observed an inverse association between KLRG1 on CD56^{dim} cells and arthritis ($p=0.0089$), arthralgias ($p=0.0001$), hematological disorders ($p=0.0329$) and SLEDAI-2K ($p=0.0105$). KLRG1 on CD56^{dim} was directly associated with the use of HCQ ($p=0.0010$). KLRG1 on CD56^{bright} cells was also directly associated with the use of HCQ and MMF ($p=0.03$ and $p=0.014$).

Fig.1

Abstract AB0162 – Figure 1

Conclusions: This study shows for the first time a reduced expression of KLRG1 in SLE patients. The inverse associations between the levels of this receptor on NK cells and the SLEDAI-2K and clinical features, together with the direct association with HCQ and MMF, suggest a possible role of KLRG1 in the pathogenesis of this disease. KLRG1 could be a possible therapeutic target in SLE.

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AB0163

INCREASED ERYPTOSIS LEVELS IN ERYTHROCYTES TREATED WITH ANTIBODIES FROM APS PATIENTS: ERYPTOSIS AS NEW ACTOR IN APS PATHOGENESIS

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Background: Erythrocytes (RBCs) are highly sensitive cells constantly exposed to several stress stimuli including inflammatory mediators. Despite the absence of nuclei and the lack of crucial elements in the machinery of apoptosis, they have developed a rapid self-destruction process called eryptosis. During this process the externalization of phosphatidylserine (PS) activates the correct elimination of erythrocytes by phagocytes preventing inflammation and intravascular hemolysis. It has been recently demonstrated that PS-exposing erythrocytes are able to adhere to endothelial cells causing an impairment of circulation,¹ suggesting a possible involvement of eryptosis in the increased risk of thrombotic episodes typical of antiphospholipid syndrome (APS).

Objectives: Enhanced eryptosis is known to contribute to several pathological conditions but the role of this process in APS has not been investigated yet. For this reason, we evaluated the effect of antibodies (Abs) purified from APS patients and healthy subjects positive for antiphospholipid antibodies without clinical manifestations (aPL carriers) on eryptosis activation. Moreover, spontaneous eryptosis levels in APS, aPL carriers, autoimmune haemolytic anaemia (AIHA) and healthy donors (HD) were analyzed.

Methods: 30 patients with primary APS (M/F 7/23, mean age 50.5±8.2 years), 17 aPL carriers (M/F 4/13, mean age 48.6±8.3 years) were recruited after written informed consent. Moreover 13 AIHA patients and 17 HD were also enrolled as positive and negative control group respectively. Ammonium sulfate precipitation is used to purify Abs from sera of APS and aPL carriers subjects. RBCs, isolated from whole blood by centrifugation, were incubated with APS and aPL carriers Abs at concentration of 20ug/mL and after 4 hours the percentage of annexin V-positive cells (PS-exposing cells) was analyzed by flow cytometry. The same technique was used to estimate spontaneous eryptosis levels in all cohorts studied.

Results: *In vitro* Abs from APS induced eryptosis in RBCs isolated from HD after 4 hours of culture compared to untreated and RBCs stimulated with Intravenous Immunoglobulins (IVIg), both $p=0.02$. On the contrary, Abs from aPL carriers had no effect on the percentage of PS-exposing RBCs (figure 1). *Ex vivo*, APS patients showed higher levels of spontaneous eryptosis compared to HD ($p=0.001$). As expected, eryptosis was upregulated in AIHA patients compared to all populations studied ($p<0.0001$). Interestingly, the percentage of annexin V-positive RBCs was lower in aPL carriers respect to APS patients ($p=0.001$). No significant correlation between eryptosis and clinical parameters was found.

Abstract AB0163 – Figure 1

Conclusions: In this study we demonstrated a new aspect of APS pathogenesis based on the capacity of Abs isolated from APS patients, and not those from aPL carriers, to stimulate eryptosis suggesting a possible contribution of this process in APS clinical manifestations.

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AB0164

NUMBERS OF B-LYMPHOCYTES INCREASE WHEN FORMATION OF LYMPHOEPITHELIAL LESIONS PROGRESSES IN SALIVARY GLANDS OF PRIMARY SJÖGREN'S SYNDROME PATIENTS

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Background: The major histopathological finding in salivary glands of primary Sjögren's syndrome (pSS) patients are periductal lymphocytic infiltrates (foci). In association with these infiltrates, lymphoepithelial lesions (LELs) may be formed. LELs are defined by infiltration of lymphocytes within the epithelium with hyperplasia of ductal cells. Although it has been suggested that B-lymphocytes predominate in LELs, the relative role of B- and T-lymphocytes in LEL formation is not known. Since LELs are a characteristic finding in salivary glands of pSS patients, quantification of B- and T-lymphocytes in the different stages of LEL development will give more insight in their formation as well as in the pathogenesis of pSS.

Objectives: To quantify the numbers of B- and T-lymphocytes in different stages of LEL development in parotid and labial gland biopsies of pSS patients.