APS, pDC and mDC produced BAFF and expressed chemokine receptors.
Conclusion pDC and mDC are differentially affected by IFNα in SLE and APS. IFNα primes pDC for enhanced IFNα production which potentiates T-cell activation by mDC, thereby sustaining the IFN signature in SLE and APS.

PS5:92 CLARIFICATION OF THE ROLE OF DNASE 1 ON THE ONSET OF SYSTEMIC LUPUS ERYTHEMATOSUS IN A MURINE MODEL

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Systemic lupus erythematosus (SLE) is a prototypical autoimmune disease resulting in multi-organ damage and a high rate of morbidity. Onset of SLE is characterised by dysregulated activation of T and B lymphocytes and the production of autoantibodies directed against nuclear components. The autoantibodies generated during the onset of SLE often recognise components released by neutrophils during NETosis, a type of cell death defined by the generation of neutrophil extracellular traps (NETs). The endonuclease DNase1 has been shown to be involved in the clearance of NET components. The sera of SLE patients contain inhibitors of DNase 1 and/or anti-NET antibodies that block the ability of DNase 1 to degrade NETs. Thus, whilst NETs are important for clearing infection they must be tightly regulated and degraded to prevent the onset of autoimmunity.

In this study we monitored the production of auto-antibodies in the serum of wild type and DNase 1-deficient mice from the age of 2 to 12 months, along with proteinuria levels and the development of glomerulonephritis. We show that DNase 1-deficient mice develop a SLE-like phenotype with elevated auto-antibody production and kidney damage by 12 months. This model also demonstrates the female bias in SLE as the female DNase 1-defieicnt mice had the highest level of kidney damage. As DNase I activity, B cells and aberrant NETosis are central to progression of SLE understanding their mechanisms of action are of great therapeutic interest.

PS5:93 MARGINAL-ZONE-LIKE B CELLS DEFICIENCY REPEATEDLY DETECTED IN PERIPHERAL BLOOD AS A POSSIBLE BIOMARKER OF HYPOSPLENISM/ASPLENIA IN SLE

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Objective SLE is a disease associated with a risk of serious infections, in case of hyposplenism/asplenia especially by encapsulated bacteria. For opsonization and phagocytosis of these agents are essential IgM natural Abs, produced only by B cells of the splenic marginal zone. Significant deficiency of marginal-zone-like B cell CD19 +CD27+IgM+ subpopulation absolute values x10–6/L in peripheral blood (PB) was demonstrated in a prospective, comparative, cross-over SLE study[1]; goal of the present study is follow up persistence of this phenomenon.
Design and method Sixty adult SLE (ACR/1982, update 1997) pts and 10 age-and sex-matched healthy controls (HC) were enrolled in month O', and 56 SLE pts also repeatedly after twelve-month-period, i. e. month 12'; overlap syndromes, infection, monoclonal gammopathy and renal failure in SLE under study were excluded. The DuraClone IM panel (Beckman Coulter) was used to identify CD19 +CD27+IgM+B cell subpopulation in PB samples by flow cytometry Navios (Beckman Coulter) with software analysis using Kaluza version 1.2: data obtained were expressed in relative% of PB lymphocytes and absolute values x10–6/L. Parallel analysis of serological SLE biomarkers included C3, C4, ANA/IF (maximal titre), ANA/ELISA, anti-dsDNA/IFCL (maximal titre), andi-dsDNA/ELISA and antinucleosome Abs. Data obtained were statistically processed using Medcalc-Statistical Software programme.
Results Significant differences ($p<0.001$) were obtained between absolute values of CD19 +CD27+IgM+B cells in HC (median 31.36, 95% CI: 24.49 to 63.35) and SLE month O' (median 9.82, 95% CI: 6.01 to 14.26), and also SLE month 12' (median 10.09 95% CI: 7.12 to 14.42), but not between values obtained in SLE month O' and month 12' ($p>0.05$); not significant differences were found in analysis using relative% of PB lymphocytes ($p>0.05$). In SLE month O' was found a slight significant correlation between absolute values of CD19 +CD27+IgM+B cells and anti-dsDNA/ELISA Abs ($rs=-0.28$, $p=0.034$) without a confirmation in month 12' control ($rs=-0.09$, $p=0.491$).
Conclusions The data obtained demonstrated persistent character of marginal-zone-like B cells deficiency in peripheral blood, and are suggesting as possible biomarker of functional hyposplenism/asplenia in SLE.

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PS5:94 CHARACTERISATION OF SLE B CELLS FROM PATIENTS IN REMISSION – PERSISTENT IL-10 SECRETORY DEFECT

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Background SLE is an autoimmune disorder characterised by polyclonal Bcell activation, the production of anti-double stranded (ds) DNA autoantibodies and cytokines. Molecular and clinical studies regarding SLE often address clinically active patientsand not patients in remission. This study reports on immunoglobulin, anti-dsDNA-aab and IL-10 secretory capacity of cultures of CD19 +lymphocytes from SLE patients in remission in comparison to normal donors. The aim was to evaluate whether endogenous factors (BAFF, CD40, IL4), exogenous factors (CpG-ODN-motifs, SAC) or their combinations differentially influence immunoglobulin, cytokine and anti-dsDNA-aab production in not active SLE patients vs healthy controls.
Methods Blood samples were obtained from a group of 13 SLE patients attending clinics at the rheumatology unit at the Heinrich-