CIRCULATING ANGIOGENIC T-CELLS ARE REDUCED IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS WITH HIGH DISEASE ACTIVITY AND WITHOUT KNOWN CARDIOVASCULAR RISK FACTORS

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Background Recent evidences underlined the central role of T-cells in the pathogenesis of Systemic Lupus Erythematosus (SLE) and in its cardiovascular complications.1 CD3 +CD31 +CXCR4+ angiogenic T-cells (Tang) have been identified as a T-cell subtype involved in the repair of damaged endothelium cooperating with endothelial progenitor cells.2 Tang were described as selectively expanded in the circulation of systemic sclerosis patients displaying peripheral vascular complications, as a reaction to an inefficient angiogenesis.3 Not much information is available on Tang in a SLE patients: in a recent study the percentage of circulating CD8 +Tang, but not CD4 +Tang, was higher in SLE than in healthy controls.4 Not much information is available on Tang in a SLE patients: in a recent study the percentage of circulating CD8 +Tang, but not information is available on Tang in a SLE patients: in a recent study the percentage of circulating CD8 +Tang, but not information is available on Tang in a SLE patients: in a recent study the percentage of circulating CD8 +Tang, but not information is available on Tang in a SLE patients: in a recent study the percentage of circulating CD8 +Tang, but not information is available on Tang in a SLE patients: in a recent study the percentage of circulating CD8 +Tang, but not information is available on Tang in a SLE patients: in a recent study the percentage of circulating CD8 +Tang, but not information is available on Tang in a SLE patients: in a recent study the percentage of circulating CD8 +Tang, but not information is available on Tang in a SLE patients: in a recent study the percentage of circulating CD8 +Tang, but not information is available on Tang in a SLE patients: in a recent study the percentage of circulating CD8 +Tang, but not information is available on Tang in a SLE patients: in a recent study the percentage of circulating CD8 +Tang, but not information is available on Tang in a SLE patients: in a recent study the percentage of circulating CD8 +Tang, but not information is available on Tang in a SLE patients: in a recent study the percentage of circulating CD8 +Tang, but not  

Conclusion B cells from SLE patients in remission as compared to peripheral B cells from healthy donors have comparable capacity to secrete immunoglobulin including non-IgG anti-dsDNA-aabs whereas their capacity to secrete IL-10 is impaired. This suggests a persisting intrinsic defect of B regulatory cells in SLE.

IL-21 DEPENDENT GRANZYME B PRODUCTION OF B-CELLS IS DECREASED IN PATIENTS WITH LUPUS NEPHRITIS

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Objectives B-cells play a crucial role in the pathogenesis of lupus nephritis. Recently, a separate subset has been discovered characterised by expression of Granzyme B. The aim of this study is to investigate this subset in patients with systemic lupus erythematosus especially in patients with lupus nephritis.

Methods Isolated peripheral blood mononuclear cells of patients with systemic lupus erythematosus (n=30) and healthy controls (n=21) were incubated with CPG, IgG +IgM and IL-21. Patients were sub-grouped in patients with and without biopsy proven lupus nephritis.

Results The strongest stimulus for Granzyme B secretion of CD19 +B cells was IgG +IgM in presence of IL-21. Patients with systemic lupus erythematosus had a significant decreased percentage of Granzyme B+CD19+B cells. This could be shown in particular for patients with active disease and with lupus nephritis.

Conclusions These data demonstrate that CD19+B-cells of patients with systemic lupus erythematosus are impaired to produce Granzyme B. This may contribute to an imbalanced B-cell regulation towards effector B-cells which might promote the development of lupus nephritis.