the effect was significantly reduced if anti-IFN-γR was added in either condition. Coculture with MSC resulted in significantly lower proliferation of activated PBMC, which was restored by addition of IL-1β.

**Conclusion:** IFN-γ, TNF-α, IL-1β secreted by PBMC activate MSC and induce IL-6 secretion. In addition, factors secreted by PBMC induce IDO activity. The impact of OSM on MSC needs further investigation.

**AB15**

**Microparticles may contribute to the pathogenesis of systemic lupus erythematosus**


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**Objective:** Microparticles are a heterogeneous population of small, membrane-coated vesicles that represent subcellular elements for cell signaling and intercellular communication in inflammation. Microparticles can be released by virtually all cell types upon activation or apoptosis. These particles have diverse biological properties and have been implicated as disease mediators that can induce inflammation as well as modulate apoptosis of target cells. Since the pathogenesis of systemic lupus erythematosus may involve aberrant apoptosis and clearance of dying cells, microparticles could contribute to disease manifestations of this prototypic autoimmune disease.

**Methods:** Quantification and characterization of microparticles were performed by flow cytometry, T cells were isolated by positive selection magnetic cell sorting. For release of microparticles, human U937 cells were stimulated with staurosporine then cell culture supernatants were centrifuged. Isolated microparticles were then quantified and added to cultured T cells. After 48 hours, rates of apoptosis and cell growth were measured by flow cytometry using Annexin V and the MTS proliferation assay.

**Results:** Our data indicate that the levels of microparticles derived from B-lymphocytes and monocytes, but not from T cells, are elevated in the blood of SLE patients compared to healthy controls. Furthermore, in experiments in which microparticles from U937 cells were added to isolated T cells in vitro, proliferation was induced dose-dependently in T cells from SLE patients and healthy controls. In contrast, the apoptosis rate was unaffected in normal T cells, whereas the data on the apoptosis rate of lupus T cells showed strong reactions upon the addition of microparticles, suggesting a differential sensitivity of SLE T cells to signalling by these structures.

**Conclusion:** Together, these findings emphasize the potential role of microparticles as mediators of autoimmunity.

**AB16**

**Effect of imatinib mesylate (IM) on endothelial cells (EC) functions**

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**Objective:** Systemic sclerosis (SSc) is systemic autoimmune disease that is characterized by microangiopathy with progressive loss of capillaries, sparse inflammation and an overproduction of extracellular matrix proteins by SSc fibroblasts leading to tissue fibrosis. IM is a tyrosine kinase inhibitor that is widely used for the treatment of CML and GIST tumors and that targets selectively abl and PDGF receptor. We have demonstrated recently, the IM inhibits potently the productions of extracellular matrix by SSc fibroblasts and prevents experimental dermal fibrosis. The aim of the present study was to exclude that the antifibrotic effects of SSc are accompanied by antiangiogenic side-effects, which might augment vascular disease in SSc.

**Methods and results:** EC were incubated with IM in concentrations from 0.01 to 1.0 µg/ml IM, which corresponds to physiologically relevant doses. The expression of VEGF was analyzed in microvascular EC after incubation with IM. IM did not alter the expression of mRNA of VEGF as analyzed by real-time PCR. Cell viability was analyzed by caspase3 assays and by annexin V/propidium iodide staining. IM did not increase the percentage of PI-positive and annexin V-positive cells. Consistently, the activity of caspase3 did not increase upon incubation of EC with IM. IM also did not alter the rate of proliferating cells or metabolic capacity of EC as assessed with the MIT assay neither after 24 h nor after long term incubation for 4 d. Cell migration was analyzed by scratch and migration assay. IM did not reduce the migratory capacity of EC. IM did also not alter the ability of endothelial cells to form tubes upon stimulation with VEGF as analyzed by capillary morphogenesis assay. The mouse model of bleomycin-induced dermal fibrosis was used to assess the effect of IM on markers of endothelial apoptosis in vivo. Consistent with the in vitro data, no differences in the number of apoptotic endothelial cells was observed in vivo with TUNEL assay.

**Conclusion:** IM does not inhibit proliferation, migration or tube forming in endothelial cells or induce apoptosis in vitro or in vivo, suggesting that IM has no direct inhibitory effects on endothelial cells.

**AB17**

**Frequency of risk factors for gastro-intestinal bleeding in 9704 patients using non-steroid anti-inflammatory drugs (NSAID’s), treated in general practice in 2005. and 2006**

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**Objective:** to assess the frequency of risk factors for gastro-intestinal (GI) bleeding in patients already using NSAID’s prescribed in general practice (GP).