long-term remission, a clear IFN imprint was detectable.
Conclusion: Autoimmunity is characterized by a much stronger expression of IFN signature genes and is obviously modulated by a separate set of co-regulated genes. Furthermore, our results indicate for a cell type-specific pro- inflammatory cytokine memory in CD4+ T helper lymphocytes even after ASCT-therapy.

56 Down regulation of gelatinase- a activity by verapamil in immunocompetent cells

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Background: Gelatinase A [matrix metalloproteinase-2 (MMP-2)] belongs to a large family of endopeptidases which degredates the extracellular matrix and has a fundamental role in inflammation. Enhancement of the MMP-2 expression in some allergic diseases has been shown. Moreover the important role of MMPs in inflammatory- mediated respiratory disorders has been reported. Verapamil, as a calcium channel blocker, has been broadly used in treatment of cardiovascular diseases. Furthermore, the immunosuppressive and anti-inflammatory effects of verapamil and its beneficial role in improvement of asthma bronchial inflammation have been revealed.
Aim: In this study the effect of verapamil on MMP-2 activity in human peripheral blood mononuclear cells (PBMCs), as immunocompetent cells, has been evaluated in vitro.
Methods: Human PBMCs were cultured in complete RPMI medium. The cells at logarhytmic growth phase were stimulated with PHA at optimum concentration and then incubated with different concentrations of verapamil (0.001-1000 µg/ml) for 48 hours. The gelatinolytic activity of MMP-2 in culture supernatant was assessed by zymography.
Results: Verapamil significantly decreased the MMP-2 activity in PHA-stimulated human PBMCs dose-dependently compared to untreated control cells.
Conclusion: According to the results of the present study verapamil down-regulates the MMP-2 activity in human PBMCs and seems to be a potential MMP-2 suppressor. Thus the immunosuppressive and anti-inflammatory effects of verapamil and also its positive role in improvement of asthma bronchial inflammation, reported by other investigators, may be in part due to its inhibitory effects on MMP-2 activity in PBMCs. So verapamil might be an important candidate for MMP-2 inhibition and therefore a therapeutic option for airway inflammatory diseases such as allergic rhinitis and asthma which have shown elevated MMP-2 expression.

57 Immunoproperties of hypothalamic proline-rich polypeptide galarmin (prp-1) in the protection against methicillin-resistant staphylococcus aureus (mrsa) in vivo

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Background: Recent increase of multidrug resistant forms e.g. methicillin-resistant strains of S. aureus (MRSA) cause a global healthcare problem worldwide. Since few years the importance of interactions between the central nervous system (CNS) and the immune system are recognized. PRP-1, also known as galarmin, is a hypothalamic peptide with remarkable protective effects in infectious diseases and immunology.
Aim: Because it is a molecule produced naturally in the body, beeing non immunogenic and active at very low doses, we considered to stydy its immunoproperties for protection in a mouse model of septic MRSA infection.
Methods: The protective effect of galarmin was shown on MRSA-infected C57BL/6 mice survival and weight loss recovery. The immunological impact of galarmin was evaluated in terms of immunocompetent cell recruitment, serum immunoglobulins, complement components C3 and C4, and pro- and anti-inflammatory cytokines (IL-6, IL-8, IL-10, IL-1b, TNFa, and KC) secretion.
Results: Galarmin posess strong protective activity against against lethal MRSA infection on murine model (100% of survival vs. 0% in the untreated group) when intramuscularly injected 24 h before infection and during the 1-h post-infection period at a concentration of 1 µg per mouse, while its higher concentrations (5 and 10 µg) were protective when injected in parallel to the infection process. The protective effect of galarmin was not due to a direct effect on MRSA, but should be attributed to an action on the host response to infection. Galarmin significantly increased and modulated the levels of IL-6, IL-8, IL-1b, IL-10, and KC in both peritoneal lavages and blood, leukocyte and platelet counts, lymphocytes percentage, serum IgM and IgG, and complement C3 and C4 components secretion.
Conclusion: Received data demonstrate that galarmin plays regulatory role in immune response modulating process during MRSA infection and can be addressed as a perspective therapeutic agent.

58 The Immunomodulatory Role of Endogenous Glucocorticoids in Ovarian Cancer

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Background: Tumour-infiltrating myeloid-derived suppressor cells (MDSC) or tumour-associated macrophages (TAM) which are abundant in ovarian cancer show a high expression of the enzyme 11Beta-Hydroxysteroid dehydrogenase I (11beta-HSD1). This enzyme is essential for the conversion of biologically inactive cortisone into active cortisol which has been detected in serum and ascitic fluid from ovarian cancer patients. Considering that