PERIPHERAL NEUROPATHY ORCHESTRATED BY NONNEURAL-SPECIFIC T LYMPHOCYTES.

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Neural-specific T cells are held to play a pivotal role in the Guillain-Barré syndrome, and experimental allergic neuritis (EAN). Here, the effects of intraneural accumulation of nonneural-specific T cells on blood-nerve barrier permeability in peripheral nerves were assessed. Rat ovalbumin (OA)-specific T cells were activated in vitro and on day 0 intravenously transferred to female adult Lewis rats. Rats were then given intraneural injections of OA or casein into left and right tibial nerves respectively. On days 3 and 4, selected rats also received intraventricular purified immunoglobulin from rabbits with myelin-induced EAN.

Intraneural accumulation of nonneural-specific T cells can orchestrate demyelination, axonal degeneration, or both.

LIMITED RESTRICTION IN $\mu$DTCR USAGE OF T CELL CLONES SPECIFIC FOR MBP (a.a. 84-102) AND 65kD HSP (a.a. 3-13) peptides within twins and MHC identical individuals.

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In order to study the TCR repertoire in response to a given specific peptide/MHC complex, we have taken advantage of a panel of pairs of HLA identical individuals heterozygous for various $\mu$DTCR genes being conserved in the response to the different peptides: A high frequency of $\mu$DTCR repertoires between, as well as within, individuals were diverse in the VJ gene repertoires. By limiting dilution we have generated a panel of T cell clones relatedness and the concordance of the corresponding peripheral $\mu$DTCR repertoires.

These results demonstrate requirement of activated T cells for in vitro synergistic effects exerted by IL-2 and combinations of IL-4, IL-5 and IL-6.

Results: K.4 greatly enhances the proliferation rate of specifically-stimulated PBL measured by $[3H]$-thymidine incorporation. The phenotype was analysed by flow cytometry.

Discussion: Chronic progressive MS patients show antibody-binding to pons that increase before the symptoms worsened. The binding was caused by IgG-antibodies (in the sera by lgM). 4. Sera and cfs of the same patients showed differences in antibody-binding, after a "mix-up" of the cfs by the lipoprotein, became negative like the sera of the same patient.

Conclusions: Chronic progressive MS patients show antibody-binding to pons tissue, while relapsing-remitting patients do not. These antibodies might be useful for being aware of asoon deterioration of the patient. These antibodies cannot be found in cfs of patients with demyelinating disease. After "mixing" the cfs by several courses of lipoprotein, the antibodies suddenly appear in the cfs of sera-positive patients. Luminar puncture might be wrong for getting an activite parameter in MS.

INTERLEUKIN-4 ENHANCES IN VITRO T-CELL RECRUITMENT IN GLOBLASTOMA-BEARING PATIENTS

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Introduction: Glioblastoma-bearing patients frequently display a severe immunodepression, due to the release, by these tumor cells, of glial cell-derived immunosuppressive agents. The resulting impairment in immune functions constitutes a major obstacle to an eventual immunotherapy. We wanted to know whether low concentrations of interleukin (IL)-4 are able to enhance the responsiveness of peripheral blood lymphocytes (PBL).

Materials and Methods: Primary cultures of surgically removed glioblastomas were co-cultured with synthetic or autologous PBL in the presence of IL-2 (40 U/ml) and in the presence or absence of IL-4 (5 U/ml). The lymphocyte precursors' frequency was estimated using the limiting dilution method. Proliferation was measured by [3H]-thymidine incorporation.

Results: IL-4 greatly enhances the proliferation rate of specifically-stimulated PBL when compared to a stimulation in the presence of IL-2 alone. The CD45RO+ CD8+ T cell subset was the one which recognized this ratio; IL-4 also significantly increases the autologous glioblastoma cell-responding T cell precursor frequency.

Conclusions: IL-4 enhances some of the impaired functions of the cellular immune system of glioblastoma-patients. The IL-4-induced increase in the lymphocyte population is mediated by a direct effect on the recruitment of precursor cells, as well as a mitogenic effect on the proliferating lymphocytes. Our results indicate that an IL-4 treatment might improve the conditions for glioblastoma immunotherapy.