Involvement of chemokines in CNS degenerative diseases Boddeke HWGM, Biber K Department of Medical Physiology, University of Groningen, Groningen

It is well established that the central nervous system can initiate pronounced inflammatory reactions to a variety of insults including trauma, ischemia, transplantation, viral infection, and immune and neurodegenerative disorders. Most of these afflictions are accompanied by infiltration of blood leukocytes and local activation of glial cells. Chemokines, are small chemotactic cytokines that are main regulators of inflammation in the peripheral system.

Whereas many chemokine receptors are constitutively present in the central nervous system, expressed in neurons and glial cells, most of the chemokines found in the CNS are inducibly expressed. Thus much evidence suggests that, chemokines are involved in neuroinflammation both by activating local glial celles and by attracting blood leukocytes. In this presentation recent information concerning expression and function of chemokines will be summarized with the main focus on neuronal expression of the chemokines CCL21 and CXCL10.

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