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Multiplex Analysis of the Activation of the Immune System after Transection of the Rat's Sciatic Nerve

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Abstract

© 2016, Springer Science+Business Media New York.In this study, using the model of sciatic nerve transection in rats, the cytokine profile of peripheral blood serum and rat sciatic nerve fragments was measured 3, 7 and 14 days after the injury. Histological analysis of sciatic nerve longitudinal sections was carried out at the same periods of time. The cytokine profile of peripheral blood serum of an intact rat as well as the cytokine profile of an intact homogenized sciatic nerve of a rat was examined. Comparative study of changes in quantitative measures before and after the injury was carried out. It was shown that in peripheral blood serum after the sciatic nerve transection, there was a change in quantitative measures of IL1a, Leptin, IL6, MCP1, and MIP2. In the samples of the rat sciatic nerve, the changes were found in the levels of EGF, Fractalkine, GCSF, IFNg, IL10, IL17A, IL18, IL2, IL6, IP10, Leptin, LIX, MCP1, MIP1a, MIP2, and RANTES.

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Keywords

Cytokines, Multiplex, Rats, Sciatic nerve injury

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