

P030 Changes in brain expression of Chondroitin Sulphate Proteoglycans (CSPGs) following transient middle cerebral artery occlusion in the rat.

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In the central nervous system (CNS), chondroitin sulphate proteoglycans (CSPGs) form part of the extra cellular matrix (ECM) which is critical in determining the responses of cells to their environment. CSPGs also have an important role in CNS injury and disease. After CNS injury, CSPGs are the major inhibitory component of the glial scar. Removal of CSPGs improves axonal regeneration and functional recovery. CSPGs may also be involved in the pathological processes in many diseases such as stroke and multiple sclerosis.

The present study was designed to investigate the expression of aggrecan, brevican, neurocan and phosphacan following focal transient middle cerebral artery occlusion in the rat. Protein and mRNA from brain tissue was analysed using Western blotting and Real time PCR. Our results demonstrate alterations in the expression of the CSPGs following middle cerebral artery occlusion which may have implications in the pathogenesis of disease progression.