

Effects of interleukin-1 β on spinal cord nociceptive transmission in intact and propentofylline-treated rats

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To investigate the contribution of glial cells in the spinal cord nociceptive transmission, the effect of intrathecally administered interleukin-1 β (IL-1 β) was studied in rats treated with the glial cell inactivator propentofylline and submitted to a C-fiber-mediated reflex paradigm evoked by single and repetitive (wind-up) electric stimulation. Intrathecal IL-1 β did not modify the C reflex integrated activity in either group of animals, while producing increased wind-up in intact and decreased wind-up in propentofylline pre-treated rats. Results suggest that the excitatory effect of IL-1 β on spinal wind-up activity in healthy rats is produced by a glial mediator, whereas the inhibitory effect resulted from a direct effect of the cytokine on dorsal horn neurons. Copyright © 2007 Informa Healthcare.