

Effect of morphine-induced cortical excitation on spinal sensory transmission

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Bioelectrical responses evoked in the ventrolateral funiculus (VLF) of the spinal cord by electrical stimulation of the contralateral hind limb were studied following topical application of 1% morphine solution to the somatosensory SI area of the rat cerebral cortex. After morphine, a typical pattern was observed in the electrocorticogram, characterized by the appearance of rhythmic spiking activity. Time-related with each cortical spike, a significant reduction in the amplitude of VLF responses was observed. It is concluded that cortical excitation induced by morphine generates descending influences having the ability to inhibit spinal sensory transmission. Copyright © 1986

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