

عنوان مقاله:

Antinociceptive Effect of Morphine Microinjections into the Dorsal Hippocampus in the Formalin-Induced Orofacial Pain in Rats

محل انتشار:

گفتمان پژوهش دامپزشکی، دوره 1، شماره 2 (سال: 1389)

تعداد صفحات اصل مقاله: 7

نویسندگان:

Amir Erfanparast - *Department of Basic Sciences, Faculty of Veterinary Medicine, Urmia University, Urmia, Iran*

Esmaeal Tamaddonfard - *Department of Basic Sciences, Faculty of Veterinary Medicine, Urmia University, Urmia, Iran*

Amir Abbas Farshid - *Department of Pathobiology, Faculty of Veterinary Medicine, Urmia University, Urmia, Iran*

Emad Khalilzadeh - *Department of Basic Sciences, Faculty of Veterinary Medicine, Urmia University, Urmia, Iran*

خلاصه مقاله:

In the present study, the effects of intra-hippocampal microinjections of morphine (an opioid agonist) and naloxone (an opioid antagonist) were investigated in the formalin-induced orofacial pain in rats. Orofacial pain was induced by subcutaneous injection of formalin (1 %, 50 µl) in the upper lip region and the time spent of face rubbing was measured in 3-min blocks for 45 min. Formalin induced a biphasic (first phase: 0-3 min; second phase: 15-33 min) pain response. Intra-hippocampal microinjections of morphine at doses of 2 and 4 µg significantly ($P < 0.05$) attenuated the first phase, and at doses of 1, 2 and 4 µg, morphine significantly ($P < 0.05$) suppressed both phases of formalin-induced orofacial pain response. Intra-hippocampal microinjections of naloxone (1 and 4 µg) non-significantly increased pain when used alone, and in pretreatment microinjection, naloxone (4 µg) reversed morphine (2 µg)-induced antinociception. These results indicate that at the level of hippocampus of the brain, morphine through a naloxone-reversible mechanism produced an antinociceptive effect confronting the pain induced by formalin in the orofacial region in rats.

کلمات کلیدی:

Hippocampus, Morphine, naloxone, Orofacial pain, Rats

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1818038>

