

Title	Different spinal effects of opioid agonists on spinal and spino-bulbo-spinal reflexes in rats
Sub Title	
Author	鈴木, 岳之(Suzuki, Takeshi) 永野, 伸郎(Nagano, Nobuo) 小野, 秀樹(Ono, Hideki) 福田, 英臣(Fukuda, Hideomi)
Publisher	共立薬科大学
Publication year	1990
Jtitle	共立薬科大学研究年報 (The annual report of the Kyoritsu College of Pharmacy). No.35 (1990.) ,p.66- 66
JaLC DOI	
Abstract	
Notes	抄録
Genre	Technical Report
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000035-0066

慶應義塾大学学術情報リポジトリ(KOARA)に掲載されているコンテンツの著作権は、それぞれの著作者、学会または出版社/発行者に帰属し、その権利は著作権法によって保護されています。引用にあたっては、著作権法を遵守してご利用ください。

The copyrights of content available on the Keio Associated Repository of Academic resources (KOARA) belong to the respective authors, academic societies, or publishers/issuers, and these rights are protected by the Japanese Copyright Act. When quoting the content, please follow the Japanese copyright act.

Different Spinal Effects of Opioid Agonists on Spinal and Spino-Bulbo-Spinal Reflexes in Rats*

Takeshi SUZUKI, Nobuo NAGANO**, Hideki ONO** and Hideomi FUKUDA**

鈴木岳之, 永野伸郎**, 小野秀樹**, 福田英臣**

The effects of morphine-HCl (MOR), methionine-enkephalin (ME) and dynorphin₁₋₁₃ (DYN) on spinal and spino-bulbo-spinal (SBS) reflexes were studied. Although spinal intrathecal administration of MOR (15 μ g) did not produce any apparent effect on these reflexes, systemically administered MOR (3 mg/kg i.v.) reduced the electrical toe stimulation-induced SBS reflex. Furthermore, MOR (3 mg/kg i.v.) increased the polysynaptic reflex induced by electrical stimulation of low-threshold dorsal root afferents in intact (non-spinal) rats, but not in spinal rats. Intrathecally administered DYN (0.5 and 5 μ g) reduced both the electrical toe stimulation-induced spinal and SBS reflexes, while ME (15 μ g) only reduced the SBS reflex. These results indicate the physiological multiplicity of spinal opioid receptors. MOR may affect supraspinal nuclei but not the spinal pathway which possesses MOR-sensitive opioid receptors, whereas ME and DYN affect spinal opioid peptide receptors and modulate the reflex activities in which they participate.

* 本報告は J Neural Transm [GenSect] (1990) 79: 1—9 に発表.

** 東京大学薬学部毒性薬理