

论文

侧脑室注射内吗啡肽-1对麻醉大鼠血压的影响

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摘要:

目的 观察侧脑室注射内吗啡肽-1(EM-1)对麻醉大鼠血压的影响,并初步探讨其作用机理。方法 侧脑室埋植导管给药,颈动脉插管测血压。结果 icv EM-1剂量依赖、纳洛酮敏感地降低麻醉大鼠的血压。icv或iv酚妥拉明、普萘洛尔和iv L-NNA对EM-1引起的血压降低反应无影响;给予阿托品(icv 25 μg·kg⁻¹;或iv 50 μg·kg⁻¹)和切断双侧迷走神经减弱EM-1引起的血压降低反应。结论 icv EM-1可引起麻醉大鼠血压降低;此效应由阿片受体介导,有中枢M受体的参与,通过兴奋迷走神经所致

关键词: 内吗啡肽-1 降血压作用 阿片受体 中枢M受体

EFFECTS OF INTRACEREBROVENTRICULAR ADMINISTRATION OF ENDOMORPHIN-1 ON BLOOD PRESSURE IN ANESTHETIZED RATS

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Abstract:

AIM To observe the effects of intracerebroventricular administration of endomorphin-1 on blood pressure in anesthetized rats and to assess its mechanism. METHODS Variations of mean arterial pressure (MAP) were observed after icv injection of endomorphin-1 in rats. The effects of iv or icv of various blockers, naloxone, phentolamine, propranolol, atropine and N^ω-nitro-L-arginine, on the variation of MAP caused by endomorphin-1 were observed. RESULTS Endomorphin-1 was shown to decrease MAP. The decrease in MAP was blocked by naloxone. Pretreatments with icv phentolamine and propranolol showed no effect on the vasodepression induced by icv endomorphin-1. However, pretreatment with icv atropine (25 μg·kg⁻¹) attenuated the vasodepression. Pretreatments with iv phentolamine, propranolol and N^ω-nitro-L-arginine showed no effect on the vasodepression induced by icv endomorphin-1. But, pretreatment with iv atropine (50 μg·kg⁻¹) and bilateral vagotomy attenuated the vasodepression. CONCLUSION Intracerebroventricular administration of endomorphin-1 produces vasodepressor response in anesthetized rats, which is mediated by opioid receptor. The vasodepression is associated with the central M cholinceptor and the excitation of the vagus.

Keywords: vasodepression opioid receptor central M cholinceptor endomorphin-1

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