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论文

# 氯哌胺对15-甲基前列腺素$F_{2\alpha}$致泻和兴奋子宫作用的影响

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摘要:

氯哌胺(Loperamide)是一种新型止泻药,能拮抗15-M-$PGF_{2\alpha}$引起的小鼠小肠内碳粉推进加速和腹泻,作用比吗啡和阿托品强,对离体大鼠回肠的抑制作用也比吗啡、阿托品强。氯哌胺能降低肠平滑肌张力,抑制离体大鼠回肠对15-M-$PGF_{2\alpha}$的反应性,但却增强子宫平滑肌对15-M-$PGF_{2\alpha}$的反应性。氯哌胺对离体大鼠子宫自发收缩活动低浓度兴奋、高浓度抑制。氯哌胺对15-M-$PGF_{2\alpha}$促进大鼠空肠水和钠离子分泌也有拮抗作用,此作用不能被纳洛酮翻转。氯哌胺在小鼠的急性半数致死量为77.9 mg/kg。

关键词: 氯哌胺 15-甲基前列腺素$F_{2\alpha}$

## EFFECT OF LOPERAMIDE ON 15-METHYL-$PGF_2$ INDUCED DIARRHEA AND UTERINE STIMULATING ACTION

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Abstract:

Loperamide is a novel type of antidiarrheal agent. In mice Loperamide was shown to be a potent blocker of 15-methyl-$PGF_{2\alpha}$-induced diarrhea and charcoal progression in the intestine. The inhibitory potency of Loperamide was greater than that of morphine and atropine. The results of experiments on isolated smooth muscles showed that Loperamide inhibited the contractive response of rat jejunum to 15-methyl-$PGF_{2\alpha}$. However, it increased the contractive response of uterus to 15-methyl-$PGF_{2\alpha}$. Loperamide in dose of $2.5\times10^{-7}$ g/ml stimulated but in dose of $10^{-6}$ g/ml inhibited the spontaneous contraction of rat uterus. Loperamide antagonized the action of 15-methyl-$PGF_{2\alpha}$ on increasing jejunum secretion. This antagonizing effect could not be reversed by naloxane. The $LD_{50}$ of Loperamide in mice was determined to be 77.9 mg/kg by intraperitoneal injection.

Keywords: 15-methyl-prostaglandin $F_{2\alpha}$ Loperamide

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