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论著

促胃肠动力药对大鼠胃及十二指肠电活动的影响

李富军， 邹益友， 黄田辉

中南大学湘雅医院消化内科，长沙 410008

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摘要
目的：研究克拉霉素、多潘立酮、莫沙必利和伊托必利等促胃肠动力药对胃及十二指肠肌电活动的影响，并进一步探讨其作用机制，为临床治疗提供参考意见。方法：用生物机能实验系统记录用药前后消化间期各组SD大鼠胃和十二指肠的肌电活动，比较几种促胃肠动力药对SD大鼠胃和十二指肠肌电图波幅及频率的影响；并加用阿托品、酚妥拉明及普萘洛尔作为拮抗剂，探讨以上几种促胃肠动力药的作用机制。结果：克拉霉素、多潘立酮、莫沙必利、伊托必利均能提高SD大鼠胃和十二指肠快波的振幅和频率（P<0.05），其中以伊托必利作用最明显，克拉霉素组最弱；阿托品能够显著抑制各组SD大鼠快波的振幅及频率(P<0.05)，而酚妥拉明和普萘洛尔则无影响。结论：克拉霉素、多潘立酮、莫沙必利和伊托必利均能提高SD大鼠胃和十二指肠肌电活动的振幅及频率，其作用机制之一可能与胆碱能受体有关，而与肾上腺素能受体无关。

关键词 多潘立酮 莫沙必利 伊托必利 克拉霉素 促胃肠动力药；电活动

分类号

Effect of prokinetic agents on the electrical activity of stomach and duodenum in rats

LI Fujun, ZOU Yiyou, HUANG Tianhui

Department of Gastroenterology,Xiangya Hospital,Central South Uinversity,Changsha 410008, China

Abstract
ObjectiveTo determine the effect of prokinetic agents such as domperidone, mosapride, clarithromycin, and itopride on the electrical activity of the stomach and duodenum in SD rats,and also to explore the mechanism.MethodsThe organism functional experiment system BL-420E was used to record the myoelectrical activity in the stomach and duodenum of SD rats in all groups using domperidone, mosapride, itopride, clarithromycin, and physiological saline on the interdigestive phase. The effect of the prokinetic agents on the amplitude and freqency of gastric and duodenal electromyologram in the SD rats was compared. The antagonists such as atropine, phentolamine, and propranolol were added to investigate the mechanism of action with all prokinetic agents.ResultsAll prokinetic agents increased the amplitude and frequency of gastric and duodenal fast waves in the SD rats(P< 0.05). The effect of itopride was the most obvious among the 3 groups （P<0.05）,and clarithromycin had the weakest effect（P <0.05）. The amplitude and frequency of gastric and duodenal fast waves in the SD rats in the groups of clarithromycin,domperidone,mosapride, itopride, and physiological saline were inhibited by atropine（P<0.05）,but not by phentolamine and propranolol.ConclusionItopride, mosapride, domperidone, and clarithromycin can increase the amplitude and frequency of gastric and duodenal fast waves in the SD rats. The mechanism may be related to cholinergic receptors, but not adrenergic receptors.

Key words domperidone；mosapride；itopride clarithromycin；prokinetic agents electrical activity

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通讯作者 李富军 fj7165@163.com

作者个人主页 李富军; 邹益友; 黄田辉