中国中药杂志
China Journal of Chinese Materia Medica

盐酸小檗碱对大鼠口服地高辛药动学的影响

投稿时间： 2010-07-13 责任编辑：张宁宁 点此下载全文

引用本文：鞠洋,邱雯,蒋学华,刘昌孝.盐酸小檗碱对大鼠口服地高辛药动学的影响[J].中国中药杂志,2011,36(7):918.

DOI：10.4268/cjcmm20110721

作者中文名	作者英文名	单位中文名	单位英文名	E-Mail
鞠洋	JU Yang	兰州大学 第二医院 药剂科, 甘肃 兰州 730030	Department of Pharmacy, Lanzhou University Second Hospital, Lanzhou 730030, China	
邱雯	QIU Wen	兰州大学 第二医院 药剂科, 甘肃 兰州 730030	Department of Pharmacy, Lanzhou University Second Hospital, Lanzhou 730030, China	qiuwenmm@sina.com
蒋学华	JIANG Xuehua	四川大学 华西药学院, 四川 成都 610041	West China School of Pharmacy, Sichuan University, Chengdu 610041, China	
刘昌孝	LIU Changxiao	天津药物研究院 天津药代动力学与药效动力学国家重点实验室, 天津 300193	State Key Laboratory of Pharmacokinetics and Pharmacodynamics, Tianjin Institute of Pharmaceutical Research, Tianjin 300193, China	

中文摘要:目的: 研究盐酸小檗碱(BBR)与地高辛(DIG)合用对大鼠体内DIG药动学的影响。 方法: 大鼠随机分为DIG单用组和DIG+BBR低、中、高剂量合用组。大鼠单剂量或多剂量给予BBR后,放免法测定单次口服DIG的血药浓度。药-时数据经3P97药动学软件处理,获得各组药动学参数。 结果: 合用后,BBR在低剂量时(10 mg·kg^{-1})对DIG的药动学过程无显著影响;但在中、高剂量(30,100 mg·kg^{-1})时有显著影响,AUC_{0-t}分别增加了33%,70%(单剂量)和27%,75%(多剂量) (P<0.05)。 结论: 体内研究表明BBR与DIG合用时,在一定浓度范围内,可明显提高其生物利用度,其机制可能与BBR抑制肠道P-糖蛋白有关。

中文关键词:盐酸小檗碱 地高辛 药动学 P-糖蛋白

Effect of berberine on pharmacokinetics of digoxin after oral administration to rats

Abstract: Objective : To study the effects of berberine (BBR) on the pharmacokinetics of digoxin (DIG) in rats. Method: Rats were randomly assigned into DIG, low dose-BBR, middle dose-BBR and high dose-BBR group. After singe or a 2-week *ig* pretreatment with BBR, serum DIG concentration was determined by radioimmunoassay. Pharmacokinetic calculations were performed on each individual set of data using 3P97 practical pharmacokinetic software. Result: No significant difference was found between the control and 10 mg·kg^{-1}BBR combined group. After pretreatment with BBR (30,100 mg·kg^{-1}), the pharmacokinetic parameters of *ig* DIG were significantly altered. The AUC_{0-t} of DIG with BBR increased by 33% and 70%(single), 27% and 75% (2-week), respectively. Conclusion: BBR increases bioavailability of DIG, which may be related to its inhibition effect on intestinal P-gp.

keywords:berberine digoxin pharmacokinetics P-gp

查看全文 查看/发表评论 下载PDF阅读器