

论文

酮洛芬β-CD包合物在兔体内药代动力学—药效动力学研究

吕万良;屠锡德;巫冠中

北京医科大学药学院药剂教研室,北京100083;*中国药科大学药剂教研室,**药理教研室,南京210009

摘要:

为了解药物经β-CD包合后的生物体内性质建立了HPLC-UV法以测定酮洛芬在家兔体内的血药浓度。用酵母诱导家兔的发热反应,考察酮洛芬β-CD包合物与其单体的药代动力学—药效动力学(PK-PD)。结果表明:建立的HPLC-UV法简便可行;酮洛芬β-CD包合物在分布相 $T_{1/2\alpha}$ 为0.4h,而其单体的 $T_{1/2\alpha}$ 为0.56h,反映了包合后酮洛芬吸收更快;在效应—浓度—时间曲线上,包合后的酮洛芬早期效应略高;酮洛芬给药后的效应峰值滞后于血药浓度峰值,提示药物的效应室在外周室。

关键词: 酮洛芬 β-CD包合物 高效液相色谱法 药代动力学 药效动力学

STUDIES ON THE PHARMACOKINETIC-PHARMACODYNAMIC MODEL OF KETOPROFEN β-CD INCLUSION COMPLEX IN RABBITS

Lu Wanliang; Tu Xide and Wu Guanzhong

Abstract:

A simple HPLC-UV method was established to determine concentrations of ketoprofen (KP) in rabbit plasma following oral administration. Twelve rabbits were selected and divided into three groups. KP β-CD inclusion complex suspension, KP entity suspension (in 0.5% CMC-Na) and 0.5% CMC-Na suspension (as a placebo group) were administered orally to the three groups of rabbits, respectively. Differences in the pharmacokinetics pharmacodynamics (PK-PD) parameters between KP β-CD inclusion complex and KP entity were examined. The results indicate that the established HPLC UV method could be used to assay the concentrations of KP in rabbit plasma with good precision. The distribution phase $T_{1/2\alpha}$ of the complexed KP was 0.4 h, while that of the KP entity was 0.56 h, KP in β-CD inclusion complex could be absorbed more rapidly. The early effect values of the KP inclusion complex were higher than those of the KP entity. The maximal antipyretic effect occurred after the peak of plasma concentration. This phenomenon indicates that the effect compartment of ketoprofen is in the peripheral compartment.

Keywords: β-CD inclusion complex HPLC Pharmacokinetics Pharmacodynamics Ketoprofen

收稿日期 1997-11-28 修回日期 网络版发布日期

DOI:

基金项目:

通讯作者:

作者简介:

参考文献:

本刊中的类似文章

1. 高连用;李全胜;顾以保;刘昌孝.酮洛芬缓释片与常释片在健康受试者的药代动力学及生物利用度[J]. 药学报, 1999,34(7): 547-551
2. 叶晓霞;俞雄.HPLC万古霉素手性柱和手性流动相添加剂法分离酮洛芬对映体[J]. 药学报, 2003,38(3): 211-214
3. 胡晋红;朱全刚;沈琦.在体猪耳静脉灌流经皮吸收模型的建立与应用[J]. 药学报, 2003,38(10): 783-786
4. 胡晋红;朱宇;薛佩华.二阶导数光谱法测定酮洛芬体外经皮渗透量[J]. 药学报, 1997,32(7): 542-545
5. 李启隆;黑丽芬;张平;王淑芬.酮洛芬的伏安行为研究[J]. 药学报, 1995,30(7): 537-542

扩展功能

本文信息

- ▶ Supporting info
- ▶ PDF(636KB)
- ▶ [HTML全文]
- ▶ 参考文献

服务与反馈

- ▶ 把本文推荐给朋友
- ▶ 加入我的书架
- ▶ 加入引用管理器
- ▶ 引用本文
- ▶ Email Alert
- ▶ 文章反馈
- ▶ 浏览反馈信息

本文关键词相关文章

- ▶ 酮洛芬
- ▶ β-CD包合物
- ▶ 高效液相色谱法
- ▶ 药代动力学
- ▶ 药效动力学

本文作者相关文章

- ▶ 吕万良
- ▶ 屠锡德
- ▶ 巫冠中

PubMed

- ▶ Article by
- ▶ Article by
- ▶ Article by

6. 朱全刚;胡晋红;曾华武.皮肤羧酸酯酶代谢的立体选择性[J]. 药学学报, 2005,40(4): 322-326

7. 何海冰;唐星;崔福德.血液微渗析技术研究酮洛芬在大鼠体内的药代动力学[J]. 药学学报, 2006,41(5): 452-456

文章评论 (请注意:本站实行文责自负, 请不要发表与学术无关的内容!评论内容不代表本站观点.)

反馈人	<input type="text"/>	邮箱地址	<input type="text"/>
反馈标题	<input type="text"/>	验证码	<input type="text"/> 2951