

论文

钾通道开放剂的抗过敏作用及其机制

王佩;徐建华;魏尔清

浙江医科大学药理学教研室; *浙江医科大学基础医学院,杭州310031

摘要:

用多种抗变态反应实验方法,研究钾通道开放剂米诺地尔(Min)与二氮嗪(Dia)的抗过敏作用,并探讨其作用机制。结果表明,Min能抑制大鼠同种被动皮肤过敏反应,拮抗5-HT引起的大鼠皮肤血管通透性增高。Dia和Min均能抑制豚鼠离体回肠平滑肌的过敏性收缩,Dia并能抑制A₂₃₁₈₇和化合物48/80诱发的肥大细胞释放组胺。因此钾通道开放剂Min与Dia具有抗过敏作用,作用的主要机理是抑制肥大细胞外Ca²⁺内流和细胞内贮存钙的释放,从而抑制组胺的释放,此可能与药物开放钾通道的作用有关。

关键词: 钾通道开放剂 米诺地尔 二氮嗪 抗过敏 肥大细胞 组胺释放

THE ANTI-ANAPHYLACTIC ACTION OF POTASSIUM CHANNEL OPENERS AND ITS MECHANISM

P Wang; JH Xu and EQ Wei

Abstract:

The anti-anaphylactic action of potassium channel openers was studied and reported in this paper. Minoxidil(Min) was shown to inhibit passive cutaneous anaphylaxis in rats. Diazoxide(Dia) and Min were found to inhibit antigen-induced guinea-pig ileum smooth muscle contraction *in vitro*. Min was shown to antagonize 5-HT induced capillary permeability in rat skin. Dia was demonstrated to inhibit histamine release from rat peritoneal mast cells induced by A₂₃₁₈₇ and compound 48/80, but it failed to antagonize guinea-pig ileum smooth muscle contraction induced by histamine *in vitro*. These results provide evidence that potassium channel openers may be a new group of inhibitors of histamine release and indicate that the mechanism of its anti-anaphylactic action may be related to its potassium channel opening effect. As a result of this effect, Ca²⁺ influx to the mast cells decreases and Ca²⁺ release from calcium storage was inhibited, thus inhibiting histamine release.

Keywords: Minoxidil Diazoxide Anti-anaphylactic action Mast cells Histamine release Potassium channel openers

收稿日期 1997-02-03 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. 牟丽媛;林紫云;朱莉亚;梁晓天.α-苯基取代肉桂酰胺类化合物的合成及其钾通道开放活性[J]. 药学报, 2001,36(7): 502-506
2. 赵圣印;黄文龙;张惠斌.苯并吡喃-4-酮类化合物的合成及其血管舒张活性[J]. 药学报, 2002,37(8): 621-625
3. 潘雅萍;徐向华;王晓良.钾通道调节剂的高通量筛选模型[J]. 药学报, 2004,39(2): 85-88
4. 陈志刚;徐建华.钾通道开放剂拮抗4-氨基吡啶诱发大鼠肥大细胞释放组胺[J]. 药学报, 1995,30(10): 736-740
5. 徐建华;吴昊妹;李莉.4-氨基吡啶诱发组胺释放及某些药物的拮抗作用[J]. 药学报, 1994,29(3): 176-179

扩展功能

本文信息

- ▶ Supporting info
- ▶ PDF(683KB)
- ▶ [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

- ▶ 钾通道开放剂
- ▶ 米诺地尔
- ▶ 二氮嗪
- ▶ 抗过敏
- ▶ 肥大细胞
- ▶ 组胺释放

本文作者相关文章

- ▶ 王佩
- ▶ 徐建华
- ▶ 魏尔清

PubMed

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

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"/> 3968