

论文

滇西喇叭碱甲的镇痛和身体依赖性研究

唐希灿;刘雪君;陆维华;王懋德;李爱玲

中国科学院上海药物研究所,上海; \*山东昌潍医学院药理教研组; \*\*昆明医学院药理教研组; \*上海医药工业研究院

摘要:

用扭体法、热板法、光热-甩尾法和甲醛致痛法证实Bul有明显镇痛作用。连续给药9 d,镇痛作用无耐受现象。小鼠跳跃反应试验阴性; Bul对吗啡依赖大鼠或猴的戒断症状,均无替代作用。Bul的镇痛作用不能被纳络酮翻转;利血平可取消Bul的镇痛作用,补充5-HT或5-HTP能翻转利血平取消Bul的镇痛作用。

关键词: 滇西喇叭碱甲 烯丙吗啡 纳络酮 利血平 5-羟色胺 止痛 吗啡依赖

STUDIES ON THE ANALGESIC ACTION AND PHYSICAL DEPENDENCE OF BULLEYACONITINE A

TANG Xi-Can; LIU Xue-Jun; LU Wei-Hua; WANG Mao-De and LI Ai-Ling

Abstract:

*Aconitum bulleyanum* Diel is an herb which has been used as an anodyne in Yunnan province for a long time. Bulleyaconitine A (Bul), an active principle, was extracted from this herb. The analgesic action of Bul has been shown in this paper by using the following methods: mice writhing evoked by ip 0.7% acetic acid 10 ml/kg; mice hot plate (56°C); continuous pain stimuli elicited by sc formaldehyde in front paw<sup>(8)</sup> and-rat tail-flick response to light irradiation. The relative analgesic effect of Bul was found to be 1.8~3.25, 15.3~65.5 and 1208~7195 times as potent as 3-acetylaconitine, morphine and aspirin, respectively. The duration of analgesic effect of Bul assayed with pain stimuli of formaldehyde in mice was longer than that of morphine. No tolerance of analgesic effect was found after daily sc of Bul 0.15 mg/kg for 9 d in mice assayed with hot plate method. In nalorphine-challenge test, no jumping response was observed in mice treated with Bul 1.2 mg/kg, the maximal tolerance dose. Rats were given sc morphine 2.5 mg/kg bid for 120 d, withdrawal of morphine was followed by a decrease in body weight, which was used as a parameter of abstinence syndrome, Bul sc 0.1 mg/kg did not alter the weight loss of morphine-treated rats. One male monkey developed physical dependence after se morphine of which the daily dose was increased progressively from 2.5 to 25 mg/kg in 21 d and then maintained for 120 d. Bul 30 µg/kg sc did not suppress the withdrawal signs evoked by ip nalorphine 0.5 mg/kg. The results indicate that Bul induced no morphine-like tolerance nor physical dependence. The analgesic action of Bul was not antagonized by naloxone, but was eliminated by intraperitoneal injection of reserpine 3 mg/kg 3 h prior to Bul. The antagonistic action of reserpine to Bul could be reversed by icv 5-HT or ip 5-HTP given 3 h after reserpine. So, the analgesic effect of Bul may be related to the 5-HT level in brain. It was found that Bul exhibit strong local anesthetic activity when injected around the Sciatic erve in mice, the ED<sub>50</sub> concentration of Bul (50% mice with signs of sciaric nerve block) was 0.0029%.

Keywords: Nalorphine Naloxone Reserpine 5-HT Analgesia Morphine dependence Bulleyaconitine A

收稿日期 1986-03-26 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

扩展功能

本文信息

- ▶ Supporting info
- ▶ PDF(455KB)
- ▶ [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

- ▶ 滇西喇叭碱甲
- ▶ 烯丙吗啡
- ▶ 纳络酮
- ▶ 利血平
- ▶ 5-羟色胺
- ▶ 止痛
- ▶ 吗啡依赖

本文作者相关文章

- ▶ 唐希灿
- ▶ 刘雪君
- ▶ 陆维华
- ▶ 王懋德
- ▶ 李爱玲

PubMed

- ▶ Article by
- ▶ Article by
- ▶ 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"/> 9308