

论著

阿托品对中国仓鼠V79 细胞有丝分裂过程的影响

和智君 汪 旭

云南师范大学生命科学系 昆明 650092

收稿日期 1998-10-12 修回日期 1999-3-1 网络版发布日期:

摘要 本研究以毒蕈碱型乙酰胆碱受体抑制剂阿托品在离体情况下作用于中国仓鼠V79细胞,通过分析V79细胞晚末期和早G1 期细胞核与细胞质构型、双核细胞频率,探讨了阿托品对哺乳动物离体细胞正常有丝分裂过程的影响。结果发现,阿托品使V79细胞的晚末期一早G1 期细胞核和细胞质分裂构型发生显著变化、双核细胞的频率显著提高,提示阿托品可能通过M型胆碱受体阻断过程而对哺乳动物有丝分裂真实性产生影响。胆碱受体的功能异常可能为非整倍体发生的诱因之一。

关键词 [中国仓鼠V79细胞](#) [阿托品](#) [有丝分裂](#) [非整倍体](#)

STUDY OF MITOTIC EFFECTS OF ATROPINE IN V79 CHINESE HAMSTER CELLS

He Zhi jun , Wang Xu

Department of L i f e Sciences , Y unnan Normal University , Kunming 650092

Abstract V79 Chinese hamster cells were treated in vit ro by at ropine sulfate , which is an antagonist to cholinergic receptors and inhibitor of muscarinic receptor. The alteration of late telophase2early G1 configuration induced by at ropine were determined by analyzing present or lack of a cytokinesis furrow in late telophase and very early G1 cells , The abnormal cytokinesis were investigated for the f requency of binuclear cells in interphase cells.The tested chemical disturbed mitotic coordination and induced significantly high f requency of binuclear cells.The result indicated that at ropine is able to inhibit mammal mitosis by blocking the function of cholinergic receptor. The malfunction of cholinergic receptors may be a mechanism of aneuploid induction.

Keywords

DOI

通讯作者

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [\[PDF全文\]\(180k\)](#)
- ▶ [\[HTML全文\]\(0k\)](#)
- ▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [Email Alert](#)

相关信息

- ▶ [本刊中 包含“中国仓鼠V79细胞”的相关文章](#)
- ▶ [本文作者相关文章](#)
- [和智君汪旭](#)