

[1]张波,李丽,张迪,等.西吡氯铵含片对口臭致臭菌和致臭底物作用的实验研究[J].第三军医大学学报,2014,36(16):1750-1753.

Zhang B,Li Li,Zhang Di,et al.Effects of cetylpyridinium chloride buccal tablets on halitosis-correlated bacteria and substrate[J].J Third Mil Med Univ,2014,36(16):1750-1753.

点击复制

西吡氯铵含片对口臭致臭菌和致臭底物作用的实验

《第三军医大学学报》[ISSN:1000-5404/CN:51-1095/R] 卷: 36 期数: 2014年第16期 页码: 1750-1753 栏目: 论著 出版日期: 2014-08-30

Title: Effects of cetylpyridinium chloride buccal tablets on halitosis-correlated bacteria and substrate

作者: 张波; 李丽; 张迪; 刘长虹; 段培佳; 钟惠兰
湖北民族学院附属民大医院口腔科; 南方医科大学附属口腔医院·广东省口腔医院

Author(s): Zhang B; Li Li; Zhang Di; Liu Changhong; Duan Peijia; Zhong Huilan
Department of stomatology, Affiliated Hospital of Hubei Institute for Nationalities, Enshi, Hubei Province 445000; Southern Medical University & Guangdong Provincial Stomatological Hospital, Guangzhou, Guangdong Province, 510280, China

关键词: 西吡氯铵; 口臭; 挥发性硫化物

Keywords: cetylpyridinium chloride; halitosis; volatile sulfur compounds

分类号: R781.9; R965; R978.2

文献标志码: A

摘要: 目的 通过西吡氯铵含片对口源性口臭致臭菌和致臭底物的实验研究,探讨西吡氯铵含片对口源性口臭治疗的效果。方法 通过连续稀释法检测西吡氯铵对致臭菌牙龈卟啉单胞菌(*P.gingivalis*, Pg)、中间普雷沃菌(*P.intermedius*, Pi)、具核梭杆菌(*F.subsp nucleatum*, Fn)和口腔正常有益菌唾液链球菌(*Streptococcus salivarius*, Ss)的最低抑菌浓度(minimal Inhibitory Concentration, MIC);并检测西吡氯铵对3种致臭菌分别培养4 h和8 h后的挥发性硫化物(volatile sulfur compounds, VSCs)水平的影响;进一步通过半胱氨酸激发模拟口臭实验,检测西吡氯铵含片对激发的VSCs的抑制率和持续时间。结果 西吡氯铵对所有实验菌具有抑菌能力,但对唾液链球菌MIC值均高于其对致臭菌的MIC值;1%西吡氯铵与1%氯己定在作用Pg、Pi和Fn 4 h时,抑制作用相当($P>0.05$),但在作用8 h时,抑制作用西吡氯铵低于氯己定($P<0.05$);半胱氨酸激发模拟口臭实验结果显示,西吡氯铵含片在30~120 min内对VSCs水平的抑制率与1%聚维酮碘漱口液相当($P>0.05$),在60~120 min内高于西吡氯铵漱口液($P<0.05$)。且西吡氯铵含片下调半胱氨酸激发的VSCs水平的持续时间为235 min,长于西吡氯铵漱口液,差异有统计学意义($P<0.05$)。结论 西吡氯铵含片能有效抑制口腔致臭菌,对治疗口源性口臭有良好的效果。

Abstract: Objective To evaluate the effects of cetylpyridinium chloride buccal tablets on halitosis-correlated bacteria and substrate. Methods Three halitosis-correlated bacteria *Porphyromonas gingivalis* (Pg), *Prevotella intermedia* (Pi),

导航/NAVIGATE

[本期目录/Table of Contents](#)

[下一篇/Next Article](#)

[上一篇/Previous Article](#)

工具/TOOLS

[引用本文的文章/References](#)

[下载 PDF/Download PDF\(793KB\)](#)

[立即打印本文/Print Now](#)

[查看/发表评论/Comments](#)

[导出](#)

统计/STATISTICS

[摘要浏览/Viewed](#)

[全文下载/Downloads](#) 27

[评论/Comments](#) 14



更新日期/Last Update: 2014-08-28

and *Fusobacterium nucleatum* (*Fn*) and a normal bacterium *Streptococcus salivarius* (*Ss*) were chosen as the experimental bacteria. The minimal inhibitory concentration (MIC) was tested with serial dilution test. The volatile sulfur compounds (VSCs) were detected with Halimeter in 4 and 8 h after cetylpyridinium chloride buccal tablet treatment of the 3 anaerobic bacteria. The effects of cetylpyridinium chloride on the odor production of mouth-borne halitosis-correlated bacteria *in vivo* were assessed with cysteine challenge test, and the effectiveness was determined by the percentage of the VSCs response and effect duration.

Results The data of the serial dilution test showed that cetylpyridinium chloride had antimicrobial activity, and the MIC against *Ss* was higher than those against the three halitosis-correlated bacteria. Cetylpyridinium chloride (1%) significantly inhibited the production of VSCs in *Pg*, *Pi* and *Fn* and its efficacy was equivalent with 1% after 4 h treatment ($P>0.05$). However, its inhibitory efficacy was lower than after 8 h treatment ($P<0.05$). The cysteine challenge test data showed that the cetylpyridinium chloride buccal tablets significantly lowered the levels of VSCs. And their inhibitory efficacy was equivalent with that of 1% povidone iodine mouthwash within 30 to 120 min ($P>0.05$) and superior to cetylpyridinium chloride mouthwash within 60 to 120 min ($P<0.05$). Moreover, the cetylpyridinium chloride buccal tablets had duration of action of 235 min, also superior to cetylpyridinium chloride mouthwash ($P<0.05$).

Conclusion Cetylpyridinium chloride tablets resists halitosis by killing mouth-borne halitosis-correlated bacteria and reducing the levels of VSCs.

参考文献/References:

张波, 李丽, 张迪, 等. 西吡氯铵含片对口臭致臭菌和致臭底物作用的实验研究[J]. 第三军医大学学报, 2014, 36(16):1750-1753.

相似文献/References:

[1]黄晓晶, 刘建党, 江山. 葡萄柚漱口液抗变异链球菌生物膜效果的激光共聚焦扫描显微镜观察[J]. 第三军医大学学报, 2011, 33(08):861.