

论著

乌司他丁对老年髋关节置换术后血栓素B2水平和深静脉血栓形成的影响

葛叶盈, 成建庆, 席文娇, 郑书芬, 康亚梅, 江琰迪

宁波市第六医院麻醉科, 浙江 宁波 315040

摘要:

目的: 探讨不同剂量乌司他丁(Uti)对老年髋关节置换患者术后血栓素B2(TXB2)水平及深静脉血栓形成的影响。方法: 选择ASA I~II级择期行髋关节置换术患者80例, 年龄65~85岁, 随机分为4组(n=20)。U1组: Uti 5 000U/kg; U2组: Uti 1万U/kg; U3组: Uti 2万U/kg; C组: 同体积0.9%NaCl溶液对照。分别于术前(T1)、术毕(T2)、术后1 d(T3)、2 d(T4)、3 d(T5)5个时间点抽血检测TXB2水平, 并于术后3天应用彩色多普勒超声检查下肢血栓形成情况。结果: 与T1比较, C组T2-5时, U1组T2-4时, U2, U3组T2时TXB2水平均升高(P<0.01); 与C组相比, U1组T2-3时、U2, U3组T2-4时TXB2水平降低(P<0.01); 与U1组比较, U2, U3组T2-4时点TXB2水平降低(P<0.01)。C组术后3天有8例发生深静脉血栓(40%), U1组有2例(10%), U2, U3组未发生。结论: Uti具有剂量依赖性抑制TXB2释放的作用, 能在一定程度上预防髋关节置换术后深静脉血栓形成。

关键词: 胰蛋白酶抑制剂 血栓素B2 血栓形成 关节成形术 置换 髋

Effect of ulinastatin on thromboxane B2 and deep vein thrombosis in elderly patients after hip joint replacement

GE Yeying, CHENG Jianqing, XI Wenjiao, ZHENG Shufen, KANG Yamei, JIANG Yandi

Department of Anesthesiology, Ningbo 6th Hospital, Ningbo Zhejiang 315040, China

Abstract:

Objective To determine the effect of ulinastatin on plasma thromboxane B2 and deep vein thrombosis(DVT) in elderly patients after hip joint replacement. Methods Eighty ASA I - II patients aged 65-81 years undergoing hip joint replacement were randomly divided into 4 groups (n=20): Group U1 (ulinastatin 5 000 U/kg); Group U2 (ulinastatin 10 000 U/kg); Group U3 (ulinastatin 20 000 U/kg); and Group C (the same volume of saline as control). The blood samples were collected at 5 time points: preoperation (T1), immediately after the operation (T2), 1 d (T3), 2 d (T4) and 3 d after the operation (T5), respectively. Thromboxane B2 was detected, and DVT was also examined through color Doppler ultrasonography 3 d after the operation. Results Compared with T1, the level of thromboxane B2 significantly increased in Group C at T2-5, in Group U1 at T2-4, in Group U2 and U3 at T2 (P<0.01). Compared with Group C, the concentration of thromboxane B2 decreased in Group U1 at T2-3, in Group U2 and U3 at T2-4 (P<0.01). Compared with Group U1, thromboxane B2 significantly decreased in Group U2 and U3 at T2-4 (P<0.01). The incidence rate of DVT was 40% in Group C, 10% in Group U1. There was no incidence of DVT in the Group U2 and U3 (P>0.05). Conclusion Ulinastatin can inhibit blood thromboxane B2 level in dose dependent manner and prevent DVT in elderly patients after hip joint replacement.

Keywords: trypsin inhibitor; thromboxane B2; venous thrombosis; arthroplasty replacement hip

收稿日期 2010-06-14 修回日期 网络版发布日期

DOI: 10.3969/j.issn.1672-7347.2010.

基金项目:

通讯作者: 葛叶盈

作者简介:

作者Email: geyeying59198@163.com

参考文献:

[1] Piovella F, Wang C J, Lu H, et al. Deep-vein thrombosis rates after major Orthopedic surgery in Asia: epidemiological study based on postoperative screening with centrally adjudicated bilateral venography [J]. J Thromb Haemost, 2005, 3(12): 2664-2670.
[2] Roumen-Klappe E M, Janssen M C, Van Rossum J, et al. Inflammation in deep vein thrombosis and the development of post-thrombotic syndrome: a prospective study [J]. Thromb Haemost, 2009, 7(4): 582-587.
[3] 邹望远, 郭曲练, 蔡进, 等. 乌司他丁对骨科病人血小板聚集及凝血功能的影响 [J]. 中南大学学报:医学版, 2004, 29(5): 569-571.
ZHOU Wangyuan, GUO QuLian, CAI Jin, et al. Effect of ulinastatin on human blood coagulation and platelet aggregation in orthopaedic surgery [J]. Journal of Central South University. Medical Science, 2004, 29(5): 569-571.
[4] Lemenev V L, Kungurt E V. Clinical and ultrasound diagnostics of acute venous thrombosis [J]. Khirurgiia (Mosk), 2008, 12(5): 11-16.
[5] Kuijpers M J, Pozgajova M, Cosemans J M, et al. Role of murine integrin alpha-beta1 in thrombus stabilization and embolization: contribution of thromboxane A2 [J]. Thromb Haemost, 2007, 98(5): 1072-1080.

扩展功能

本文信息

- Supporting info
PDF(809KB)
[HTML全文]
参考文献[PDF]
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

- 胰蛋白酶抑制剂
血栓素B2
血栓形成
关节成形术
置换
髋

本文作者相关文章

PubMed

[6] 陈妍, 杨燕, 齐宝庆, 等.老年髌部骨折患者血浆血栓素B2和6-酮-前列环素F1a水平的变化及临床意义 [J].天津医科大学学报, 2007, 13(2): 250-252.

CHEN Yan, YANG Yan, QI Baoqing, et al. The changes and clinical significant of thromboxane B2 and 6-Keton-prostaglandin-F1a in serum in elderly patients with hip fractures [J]. Journal of Tian Jin Medical University, 2007, 13(2): 250-252.

[7] Kastl S P, Speidl W S, Katsaros K M, et al. Thrombin induce the expression of oncostatin M via AP-1 activation in human macrophages: a link between coagulation and inflammation [J]. Blood, 2009, 114(13): 2812-2818.

[8] Levi M, Nieuwdorp M, van der Poll T, et al. Metabolic modulation of inflammation-induced activation of coagulation [J]. Semin Thromb Hemos, 2008, 34(1): 26-32.

[9] Fox E A, Kahn S R. The relationship between inflammation and venous thrombosis. A systematic review of clinical studies [J]. Thromb Haemost, 2005, 94(2): 362-365.

[10] 周琪, 王刚, 高长青, 等. 乌司他丁对体外循环冠脉搭桥手术围术期炎症反应的影响 [J]. 中南大学学报: 医学版, 2010, 35(2): 107-110.

ZHOU Qi, WANG Gang, GAO Changqing, et al. Effect of ulinastatin on perioperative inflammatory response to coronary artery bypass grafting with cardiopulmonary bypass [J]. Journal of Central South University. Medical Science, 2010, 35(2): 107-110.

[11] Sato N, Endo S, Kimura Y, et al. Influence of a human protease inhibitor on surgical stress induced immunosuppression [J]. Dig Surg, 2002, 19(4): 300-305.

[12] Inoue K, Takano H, Sato H, et al. Protective role of urinary trypsin inhibitor in lung expression of proinflammatory cytokines accompanied by lethal liver injury in mice [J]. Immunopharmacol Immunotoxicol, 2009, 31(3): 446-450.

[13] 冯国辉, 董兰, 雷志礼, 等. 乌司他丁对肝移植术患者凝血功能的影响 [J]. 中华麻醉学杂志, 2009, 29(4): 296-298.

FENG Guohui, DONG Lan, LEI Zhili, et al. Effect of ulinastatin on coagulation function in patients undergoing orthotopic liver transplantation [J]. Chin J Anesthesiol, 2009, 29(4): 296-298.

本刊中的类似文章

1. 沈金美¹, 李季¹, *, 何小京¹, 姚茂金², 常业恬¹. 乌司他丁对心内直视手术患者红细胞脂质过氧化的影响[J]. 中南大学学报(医学版), 2004, 29(2): 187-189

2. 邹望远*, 郭曲练, 蔡进, 罗和国. 乌司他丁对骨科病人血小板聚集及凝血功能的影响[J]. 中南大学学报(医学版), 2004, 29(5): 569-571