

# 注射用纤溶酶致寒战、高热 1 例

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关键词 注射用纤溶酶; 寒战; 高热; 药品不良反应

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## 1 病例资料

患者男, 64 岁, 2018 年 2 月 17 日因“突发不能言语、右侧肢体活动差 1 天”入院。既往有高血压病史; 否认药物、食物过敏史。体检: T 36.5℃, P 80 次/min, R 20 次/min, BP 150/100 mmHg; 神志清楚, 不能言语, 查体部分配合, 跛行; 双肺呼吸音粗, 未闻及干湿性啰音, 心音低钝、心律齐; 右侧肢体肌张力减弱, 肌力 IV 级, 左侧肢体肌张力正常; 闭目难立征阳性、一字征阳性。颅脑 SCT 显示左侧额叶及左侧基底节区脑梗死。入院诊断: ①脑梗死; ②高血压病 2 级。医嘱给予阿司匹林肠溶片 100 mg po, qn; 硫酸氢氯吡格雷片 75 mg po, qn; 阿托伐他汀钙片 20 mg po, qn, 同时予注射用纤溶酶(北京赛升药业股份有限公司, 规格: 100 U, 批号: 201607126) 100 U + 0.9% 氯化钠注射液 250 ml ivd qd(临用前用 1 U · ml<sup>-1</sup> 稀释液行皮肤过敏试验, 15 min 后观察结果为阴性)。患者开始静脉滴注后 30 min 出现气喘、胸闷、寒战、发热(39.3℃), BP 133/78 mmHg, 两肺部散在哮鸣音。立即停用注射用纤溶酶, 予地塞米松注射液 10 mg iv, 异丙嗪注射液 50 mg im, 柴胡注射液 4 ml im; 多索茶碱注射液 0.2 g + 0.9% 氯化钠注射液 100 ml ivd; 吸入用布地奈德混悬液 2 ml + 吸入用复方异丙托溴铵溶液 2.5 ml 超声雾化吸入治疗; 并实施物理降温。随后患者气喘、胸闷缓解, 寒战减轻, 体温逐渐下降。4 h 后患者体温逐渐恢复正常, 此后未再使用注射用纤溶酶, 患者未再出现上述症状。

## 2 讨论

患者症状考虑为注射用纤溶酶所致药物不良反应, 主要原因: ①入院当日患者体温正常, 血常规示白细胞在正常范围, 可排除感染引起的寒战、高热; ②患者颅脑 SCT 未见血肿, 故排除脑出血致发热; ③溶媒 0.9% 氯化钠注射液全院均无不良反应上报, 后续其他输液治疗使用同批号溶媒也未出

现不良反应; ④入院治疗期间规律服用其他药物, 未出现相关不良反应; ⑤患者在静脉滴注过程中出现症状, 停药后对症处理症状缓解, 根据国家不良反应监测中心有关因果关系判定标准<sup>[1]</sup>, 患者用药与不良反应出现有合理的时间关系。综上, 患者出现的寒战、高热, 很可能是注射用纤溶酶所致。

注射用纤溶酶可直接水解纤维蛋白, 促使纤维蛋白和纤维蛋白原降解为小分子可溶片段, 促使内皮细胞释放组织纤溶酶原激活物(t-PA), 发挥抗血栓功能, 能有效降低血小板聚集及血液黏度、改善微循环<sup>[2]</sup>。说明书记载其可引起创面、注射部位、皮肤及黏膜出血, 可导致头痛、头晕或氨基转移酶升高的不良反应, 极少量患者可致过敏反应。目前文献报道有恶心呕吐<sup>[3]</sup>、荨麻疹型药疹<sup>[4]</sup>、过敏性休克<sup>[5]</sup>、双下肢腓肠肌疼痛<sup>[6]</sup>、急性白细胞减少<sup>[7]</sup>等不良反应, 尚未见其引起寒战、高热的报道。

注射用纤溶酶致寒战、高热的机制尚不明, 可能与药物因素有关, 该药为从长白山白眉蝮蛇毒中纯化提取的蛋白水解酶, 是一种蛋白酶制剂, 有一定的抗原性<sup>[8]</sup>。建议医护人员严格掌握注射用纤溶酶的适应证, 用药前应详细询问患者过敏史, 过敏体质者慎用, 对皮肤试验结果为阴性的, 在用药过程中也应密切观察, 一旦发生不良反应, 立即停药并对症处理, 以确保用药安全。

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## 某院肾内科住院患者抗菌药物剂量调整情况调查分析

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**摘要** 目的: 分析肾内科肾功能不全患者抗菌药物剂量调整情况, 为抗菌药物的临床安全、合理用药提供参考。方法: 回顾性调查某院肾内科 2018 年 3 月应用抗菌药物且在用药前肌酐清除率( $Ccr$ )  $\leq 90 \text{ ml} \cdot \text{min}^{-1}$  的 96 例成年患者, 根据患者肾功能受损程度及是否透析, 将调查对象分为 4 组:  $50 \text{ ml} \cdot \text{min}^{-1} < Ccr \leq 90 \text{ ml} \cdot \text{min}^{-1}$  为第 I 组,  $10 \text{ ml} \cdot \text{min}^{-1} \leq Ccr \leq 50 \text{ ml} \cdot \text{min}^{-1}$  为第 II 组,  $Ccr < 10 \text{ ml} \cdot \text{min}^{-1}$  为第 III 组, 透析和连续肾脏替代疗法(CRRT)患者为第 IV 组。分别统计每组患者应用抗菌药物时剂量调整和不良反应发生情况, 分析可能存在的合理用药问题。结果: 纳入调查 189 例次病例中, 抗菌药物剂量应该调整而未调整 87 例次, 不合理应用率为 46.0%。头孢菌素使用占比最大, 剂量应该调整但未调整比例为 45.45%; 糖肽类不合理应用率最高, 达到了 76.9%。I ~ IV 组及合计中, 用药合理组不良反应发生率均低于用药不合理组 ( $P < 0.05$ )。结论: 该院肾内科肾功能受损的患者应用抗菌药物时, 剂量调整率低, 整体不合理应用率较高。临床药师应该积极发挥作用, 及时干预医师用药行为, 保证用药安全合理。

**关键词** 肾内科; 肾功能不全; 抗菌药物; 剂量调整; 药品不良反应; 合理用药

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### Investigation and Analysis of Dosage Adjustment for Antimicrobial Drugs Used in Nephrology Department of One Hospital

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**ABSTRACT Objective:** To analyze the dosage adjustment for antimicrobial drugs in nephrology department, and to provide reference for the clinical safety and rational use of antibiotics. **Methods:** A retrospective survey was conducted on 96 patients with  $CCr$  below or equal to  $90 \text{ ml} \cdot \text{min}^{-1}$  and treated with antibacterial drugs in March 2018 in one hospital. According to the level of damage and whether dialysis, the subjects were divided into four groups, the patients without dialysis and with  $50 \text{ ml} \cdot \text{min}^{-1} < Ccr \leq 90 \text{ ml} \cdot \text{min}^{-1}$  was involved in group I, the ones without dialysis and with  $10 \text{ ml} \cdot \text{min}^{-1} \leq Ccr \leq 50 \text{ ml} \cdot \text{min}^{-1}$  was involved in group II, the ones without dialysis and with  $Ccr < 10 \text{ ml} \cdot \text{min}^{-1}$  was for group III, and the ones with dialysis and CRRT were in group IV. The dose adjustment and adverse reactions in the groups were recorded, and the irrational drug use was analyzed. **Results:** Among the 189 cases of medical records containing antibacterial drugs, the dosage of antimicrobial drugs needing adjustment while without adjustment happened in 87 cases, and the unreasonable application rate was 46%. The dose adjustment rate in group I was low, while the adjustment rate in group II and III was higher and the rational application rate of antimicrobial drugs in group IV was at median. The use proportion of cephalosporins was the largest, and the rate of dosage needing adjustment while without adjustment was up to 45.45%. The unreasonable application rate of sugar peptides was the highest, which reached 76.9%. The incidence of ADRs in the reasonable group was lower than that in the unreasonable group in group I-IV and the total. The incidence of ADRs in the cases with rational use of antibiotics was 12.5%, and the incidence of ADRs in the cases with unreasonable drug use was 29.2%, and the difference was significant between the groups ( $P < 0.05$ ). **Conclusion:** The rate of dose adjustment is low and the overall unreasonable application rate is high in patients with impaired renal function in nephrology department in this hospital. Clinical pharmacists should play an active role in timely intervention with drug use of physicians to ensure the safety and rationality of drug use.

**KEY WORDS** Nephrology department; Renal insufficiency; Antimicrobial drugs; Dose adjustment; Drug adverse reaction; Rational drug use

肾脏是机体进行药物代谢和排泄的主要器官, 肾功能的改变会使得药物代谢动力学随之发生改变, 药物在体内吸

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