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论著

抗生素干预后ESBLs-KPN和ESBLs-ECO的变化

高娅文1， 杨宇1， 吴悦陶1， 曹玮2， 周琪伟3

中南大学湘雅二医院1.老年病科； 2.检验科； 3.药剂科， 长沙 410011

摘要：

目的：评价抗生素干预策略执行后院内感染的产超广谱β-内酰胺酶（ESBLs）大肠埃希菌（ECO）与肺炎克雷伯菌(KPN)阳性率的变化，探索合理的干预模式及干预的合适时期及监测指标。方法：从2004年12月到2007年12月，监测中南大学湘雅二医院病房常见抗生素的年消耗量（DDD/1 000 patient-days表示）及其耐药率、院内感染的产超广谱β-内酰胺酶的肺炎克雷伯菌（ESBLs-KPN）和产超广谱β-内酰胺酶的大肠埃希菌（ESBsL-ECO）的阳性率；2005年1月至2007年12月对研究科室实施抗生素的综合干预策略。干预科室设为试验组，医院内条件相当的其他科室设为对照组（ICU除外）。结果：干预前（2004年），试验组ESBLs-KPN(43.90%)和ESBLs-ECO (45.83%)阳性率均高于对照组ESBLs-KPN (28.04%)和ESBLs-ECO(24.90%) (P＜0.05)；干预后试验组ESBLs-KPN阳性率呈显著下降趋势，由26.47%下降至17.65%(P＜0.05)；而对照组ESBLs-KPN和ESBLs-ECO阳性率呈显著上升趋势，前者由34.18%上升至52.94%(P＜0.05)，后者由47.03%上升至63.78%(P＜0.05)，且干预后试验组ESBLs-KPN和ESBLs-ECO阳性率均低于对照组ESBLs-KPN和ESBLs-ECO阳性率(P＜0.05)。试验组减少了头孢他啶(CAZ)、头孢哌酮/舒巴坦(CFS)、亚胺培南(IMP)的消耗量，增加了头孢吡肟(FEP)的消耗量 (P＜0.05)；对照组增加了CAZ，FEP和CFS 的消耗量。结论： 长期抗生素综合干预策略的实施可能有益于降低ESBLs-KPN和ESBLs-ECO的流行。

关键词： 抗生素干预 院内感染 阳性率 ESBLs-KPN ESBLs-ECO

Change of ESBLs-KPN and ESBLs-ECO after antimicrobial intervention

GAO Yawen1, YANG Yu1, WU Yuetao1, CAO Wei2, ZHOU Qiwei3

1.Department of Gerontology; 2.Department of Clinical Laboratory; 3.Pharmaceutical Preparation Section,
Second Xiangya Hospital, Central South University, Changsha 410011, China

Abstract:

ObjectiveTo evaluate the change of extended spectrum β-lactamase (ESBLs) Producing Klebsiella Pneumoniae （ESBLs-KPN） and Escherichia coli （ESBLs-ECO） causing nosocomial infection after antimicrobial intervention. MethodsWe regularly monitored the data on the yearly consumption ［defined as daily dose (DDD) per 1 000 patient-days］ of frequently used antibiotics from Dec. 2004 to Dec. 2007. From Jan. 2005 to Dec. 2007, we monitored the resistance of frequently used antibiotics and the timely integrative antimicrobial intervention was based on the outcome of antimicrobial resistance. We also monitored the isolation rate of ESBLs-KPN and ESBLs-ECO causing nosocomial infection. The departments studied were the experimental group and other comparable medical departments were the control group(ICU was excluded).ResultsThe isolation rate of ESBLs-KPN (43.90%) and ESBLs-ECO (45.83%) in the experimental group was higher than that in the control group (28.04% and 24.90%, respectively) before the intervetion (P＜0.05). The isolation rate of ESBLs-KPN decreased (from 26.47% to 17.65%) in the experimental group and that in the control group increased (ESBLs-KPN: from 34.18% to 52.94%; ESBLs-ECO: from 47.13% to 63.78%) from 2005 to 2007 (P＜0.05). The isolation rate of ESBLs-KPN and ESBLs-ECO in the experimental group was lower than that in the control group after the antimicrobial intervention (P＜0.05). Usage of ceftazidime and cefoperazone/sulbactam and imipenem was reduced and the consumption of cefepime was increased in the experimental group (P＜0.05). Consumption of ceftazidime and cefoperazone/sulbactam and cefepime was increased. ConclusionThe prevalence of ESBLs-KPN and ESBLs-ECO may be decreased after the integrative antimicrobial intervention.

Keywords: antimicrobial intervetion;nosocomial infection;isolation rate;ESBLs-KPN;ESBLs-ECO

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通讯作者: 杨宇

作者简介:

作者Email: yangyu3@medmail.com.cn

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