

论著

呼吸ICU医院获得性肺炎的病原学分布与致病菌耐药性的变迁

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摘要: 目的:调查湘雅医院呼吸重症监护室(respiratory medicine intensive care unit, RICU)2005年与2011年医院获得性肺炎患者病原学构成分布与致病菌耐药性的变迁,为RICU临床抗感染药物的合理使用提供依据。方法:收集2005年和2011年湘雅医院RICU医院获得性肺炎患者痰培养的药敏试验阳性结果,比较这两个时间段病原学构成和分布特点以及致病菌耐药性。结果:1)在2005年和2011年两个时间段里,RICU医院获得性肺炎患者致病菌均以革兰阴性杆菌为主(分别占68.07%和65.21%),但首要致病细菌已发生变迁,鲍曼不动杆菌已取代铜绿假单胞菌而成为最主要的细菌,感染率6年内由6.81%迅速上升至40.87%,铜绿假单胞菌感染率由2005年20.42%降至2011年15.60%,流感嗜血杆菌属现已少见。金黄色葡萄球菌所占比例从2005年1.57%上升至2011年4.83%,并已成为最主要的革兰阳性菌。同时,白色假丝酵母菌培养阳性率明显升高,其它假丝酵母菌培养阳性率升高更明显。2)2011年与2005年相比,RICU医院获得性肺炎患者致病细菌的耐药性及敏感性发生了较大的变迁,其趋势是对多种药物耐药性的增加和敏感性的降低。2011年,铜绿假单胞菌现对美罗培南、头孢哌酮舒巴坦、头孢他啶、头孢吡肟和阿米卡星仍有较好的敏感性,但对左氟沙星、环丙沙星、阿米卡星、庆大霉素、美罗培南、头孢曲松、哌拉西林他唑巴坦等的耐药率均较2005年明显增加($P<0.05$)。2011年鲍曼不动杆菌仅对多黏菌素均敏感,对舒巴坦制剂有较好的敏感性,对氨基糖苷类抗生素耐药率极高,与2005年相比较差异具有统计学意义($P<0.01$)。结论:RICU医院获得性肺炎患者致病细菌仍以革兰阴性杆菌为主,革兰阳性菌中金黄色葡萄球菌比例升高,真菌感染比例升高。主要致病细菌对多种药物的耐药性增加,敏感性降低。RICU医院获得性肺炎患者病原学构成分布与耐药性已发生较大变迁,RICU临床抗感染药物的初始经验性使用受到更大影响,故应合理使用抗生素,延缓耐药性的继续产生。

关键词: 呼吸重症监护室 医院获得性肺炎 病原学 耐药性 分布

Pathogen distribution and antibiotic resistance for hospital aquired pneumonia in respiratory medicine intensive care unit

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Abstract: Objective: To investigate the change of pathogen distribution and antibiotic resistance of pathogens isolated from in-patients with hospital acquired pneumonia (HAP) in the Department of Respiratory Medicine Intensive Care Unit (RICU) of Xiangya Hospital in 2005 and in 2011, and to provide reasonable anti-infectious strategy.

Methods: The positive susceptibility test of sputum (bronchial secretions) culture was done in patients with HAP in RICU of Xiangya Hospital in 2005 and in 2011, and the distribution feature and antibiotic resistance were compared.

Results: 1) In the two years, the main pathogen in HAP patients was Gram negative bacteria (infection rate was 68.07% and 65.21% in 2005 and in2011 respectively). The primary pathogenic bacteria were changed, and *Acinetobacter baumannii* became the most common Gram negative bacterium which replaced *Pseudomonas aeruginosa*, with infection rate 6.81% in 2005 to 40.87% in 2011. The infection rate of *Pseudomonas aeruginosa* reduced from 20.42% in 2005 to 15.60% in 2011. Haemophilus influenzae was rare. *Staphylococcus aureus* became the primary Gram positive bacteria, and its infection rate increased from 1.57% in 2005 to 4.83% in 2011, all of which were methicillin-resistant *Staphylococcus aureus* (MRSA). *Saccharomyces albicans*' positive culture rate increased significantly. 2) Compared with in 2005, the antibiotic resistance of pathogen isolated from the HAP patients changed a lot in 2011: increased antibiotic resistance rate and decreased sensitivity to many antibiotics. *Pseudomonas aeruginosa* was only relatively susceptible to meropenem, cefoperazone sulbactam, ceftazidime, cefpodoxime, and andamicaxin in 2011. The resistance rate of *Pseudomonas aeruginosa* to levofloxacin, cyclopropane, ampicillin, gentamicin, meropenem, cematixone, and piperacilintazobactam increased obviously ($P<0.05$). Compared with 2005, *Acinetobacter baumannii* was totally susceptible to polymyxin and relatively susceptible to sulbactam, but it was almost completely resistant to Aminoglycoside antibiotics in 2011, with significant difference ($P<0.01$).

Conclusion: The main pathogen of HAP patients in RICU was Gram negative bacteria, with increased infection rate of *Staphylococcus aureus* and fungus. There is change pathogen distribution and antibiotic resistance, and the clinical initial experimental antibiotic therapy may be influenced. It is important to use antibiotics more rationally to delay the antibiotic resistance.

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