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头孢哌酮舒巴坦联合莫西沙星治疗老年肺部感染的临床效果研究 *

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摘要 目的：研究头孢哌酮舒巴坦联合莫西沙星治疗老年肺部感染的临床效果。**方法：**以 2014 年 1 月至 2016 年 12 月于我院就诊的 200 例老年肺部感染患者为研究对象，将其随机分为观察组与对照组，每组各 100 例。两组患者均采用叩背吸痰、化痰、吸氧、营养支持等常规治疗方案。对照组静脉滴注头孢哌酮 / 舒巴坦钠进行治疗，每次 3.0 g，每 12 h 给药 1 次；观察组联合静脉滴注莫西沙星治疗，每次 0.4 g，每天给药 1 次。两组患者疗程均为 2 周。观察和比较两组患者的临床疗效、退热时间、止咳时间、肺部啰音消散时间和肺 CT 病灶吸收时间，治疗前后的血清超敏 C 反应蛋白水平以及白细胞计数的变化。**结果：**观察组的治疗总有效率为 97.00%(97/100)，明显高于对照组[83.00%(83/100)](P<0.05)；观察组的退热时间、止咳时间、肺部啰音消散时间以及肺 CT 病灶吸收时间均明显低于对照组(P<0.05)；两组治疗后的血清超敏 C 反应蛋白水平以及白细胞计数均较治疗前明显降低，且观察组以上指标显著低于对照组(P<0.05)；两组患者的不良反应发生率比较无明显差异(P>0.05)。**结论：**头孢哌酮舒巴坦联合莫西沙星治疗老年肺部感染的临床效果明显优于单纯给予头孢哌酮舒巴坦治疗，不仅可以有效改善患者的临床症状、控制炎症，且具有较高的安全性。

关键词：头孢哌酮舒巴坦；莫西沙星；老年；肺部感染；临床效果

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Clinical Efficacy of Cefoperazone Sulbactam Combined with Moxifloxacin in the Treatment of Elderly Patients with Pulmonary Infection*

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ABSTRACT Objective: To investigate the clinical efficacy of cefoperazone sulbactam combined with moxifloxacin in the treatment of elderly patients with pulmonary infection. **Methods:** 200 cases of patients with pulmonary infection who were treated in our hospital from January 2014 to December 2016 were selected and randomly divided into two groups. Both groups were treated by knocking back sputum, resolving phlegm, oxygen inhalation, nutritional support and aerosol inhalation. The control group received intravenous Cefoperazone sulbactam sodium, the observation group combined with intravenous infusion of moxifloxacin treatment. The clinical treatment effects disappearance time of fever, cough, pulmonary rales, lung CT lesions absorption time, changes of serum high sensitivity C reactive protein and white blood cell count before and after treatment were compared between the two groups. **Results:** After treatment, the effective rate of observation group was 97.00%(97/100), which was significantly higher than that of the control group [83.00%(83/100)] (P<0.05); the disappearance time of fever, cough, lung rales, the absorption time of lung CT lesion of observation group were significantly lower than those in the control group (P<0.05); the serum hypersensitivity C reactive protein levels and WBC count of both groups after treatment were significantly lower than those before treatment (P<0.05), which were overtly lower in the observation group(P<0.05). There was no significant difference in the incidence of adverse reactions between the two groups (P>0.05). **Conclusion:** Cefoperazone sulbactam combined with moxifloxacin has better curative effect in the treatment of elderly patients with pulmonary infection than cefoperazone sulbactam alone, it can improve the clinical symptoms, control the inflammation with high security.

Key words: Cefoperazone sulbactam; Moxifloxacin; Elderly; Pulmonary infection; Clinical effect

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前言

肺部感染是临床上最为常见的一种感染，若未得到及时有效的治疗，极易引起严重的并发症，病情重者甚至会造成死亡[1-3]。老年患者由于机体免疫力较差，且有多种基础疾病，极易发生肺部感染。老年肺部感染患者由于发病急骤，进展迅速，病情复杂，疾病持续时间长，较难治愈，逐渐成为引起老年患者死亡的主要原因[4,5]。

目前，临床上对老年肺部感染患者尚无直接有效的治疗方法，是临床治疗的难点，主要采用抗感染，但效果并不理想。因

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此，探索合理、有效、安全的抗菌药物或治疗方案是目前临床研究的重点。头孢哌酮舒巴坦以及莫西沙星均为临床常用的抗菌药物，但尚未见关于二者联合使用治疗肺部感染的研究报道。因此，本研究选取我院的 100 例老年肺部感染患者，给予头孢哌酮舒巴坦以及莫西沙星联合治疗，结果报道如下。

1 资料与方法

1.1 一般资料

以 2014 年 1 月至 2016 年 12 月于我院就诊的 200 例老年肺部感染患者为研究对象，按照社区获得性肺炎诊治指南(2016 版)，确诊为肺部感染，排除对头孢类、喹诺酮类药物过敏者，存在肺外感染病灶者、患有严重的心、肾、肝、造血系统疾病者，并将其随机分为两组。观察组 100 例，男 57 例，女 43 例；年龄 60~83 岁，平均(68.13± 7.93)岁；病程 1-14 天，平均 4.6± 1.0 天；其中，慢性阻塞性肺疾病并感染 59 例，肺炎 21 例，肺癌合并阻塞性肺炎 10 例，支气管扩张并感染 10 例；合并基础疾病包括：高血压 67 例，糖尿病 16 例。对照组 100 例，男 58 例，女 42 例；年龄 60~84 岁，平均(68.29± 7.64)岁；病程 4~16 天，平均(12.28± 6.79)天；其中，慢性阻塞性肺疾病并感染 46 例，肺炎 25 例，肺癌合并阻塞性肺炎 9 例，支气管扩张并感染 20 例；合并基础疾病包括：高脂血症 31 例，高血压 58 例，糖尿病 15 例。本研究获得我院伦理委员会的批准，所有患者均签署知情同意书。两组的一般资料具有可比性。

1.2 治疗方法

两组患者均采用叩背吸痰、化痰、吸氧、营养支持等常规治疗方案。对照组静脉滴注头孢哌酮 / 舒巴坦钠(批号：国药准字 H20020597，生产厂家：辉瑞制药有限公司，规格：1.5g)进行治疗，每次 3.0 g，每 12 h 给药 1 次；观察组联合静脉滴注莫西沙星(批号：国药准字 J20110023，生产厂家：拜耳医药保健有限公司，规格：250 mL：莫西沙星 0.4 g 与氯化钠 2.0 g)治疗，每次 0.4 g，每天 1 次。两组患者疗程均为 2 周。

1.3 观察指标

对两组患者的临床疗效进行比较，疗效标准为[6]：① 治愈：经过治疗后，患者胸部 CT 检查显示肺部炎症完全消失，临床症状和体征均全部消失；② 有效：经过治疗后，患者的胸部 CT 检查显示肺部炎症有一定程度的改善，临床症状和体征有所减轻；③ 无效：经过治疗后，患者的胸部 CT 检查结果、临床症状和体征均无明显的变化。

观察和比较两组患者的退热时间、止咳时间、肺 CT 病灶吸收时间以及肺部啰音消散时间，并比较两组治疗前后的血清超敏 C 反应蛋白水平以及白细胞计数。

1.4 统计学分析

采用 SPSS 15.00 软件进行数据分析，计量资料以 $\bar{x}\pm s$ 表示，组间对比用 t 检验，组间率的比较用 χ^2 检验，以 P<0.05 时差异有统计学意义。

2 结果

2.1 两组患者临床疗效的对比

如表 1 所示，观察组的治疗总有效率为 97.00%，对照组为 83.00%，观察组的有效率显著高于对照组(P<0.05)。

表 1 两组临床疗效比较[例(%)]

Table 1 Comparison of the clinical effect between two groups[n(%)]

Group	n	Cure	Valid	Invalid	The total effect rate
Observation group	100	24	73	3	97.00*
Control group	100	20	63	17	83.00

Note: Compared with the control group, *P<0.05.

2.2 两组临床观察指标的对比

观察组的退热时间、止咳时间、肺 CT 病灶吸收时间以及肺部啰音消散时间均明显低于对照组(P<0.05)，见表 2。

表 2 两组临床观察指标对比($\bar{x}\pm s$, d)

Table 2 Comparison of the clinical observation index between two groups ($\bar{x}\pm s$, d)

Group	n	Defervescence time	Relieve cough time	Lung CT lesion absorption time	Pulmonary rale dissipation time
Observation group	100	2.35± 1.87*	5.62± 1.89*	9.03± 1.37*	6.73± 1.24*
Control group	100	5.98± 1.73	8.34± 2.14	11.25± 1.58	9.37± 1.69

Note: Compared with thecontrol group, *P<0.05.

2.3 两组治疗前后血清超敏 C 反应蛋白水平以及白细胞计数的对比

两组治疗后的血清超敏 C 反应蛋白水平以及白细胞计数均较治疗前明显降低(P<0.05)，且观察组以上指标明显低于对照组(P<0.05)，见表 3。

2.4 两组不良反应发生情况的比较

观察组发生呕吐 1 例、恶心 2 例、腹泻 2 例、胸痛 1 例，不良反应发生率为 6.00%(6/100)，对照组发生呕吐 2 例、恶心 2 例、腹泻 2 例、胸痛 1 例，不良反应发生率为 7.00%(7/100)。两组的不良反应发生率相比无明显差异(P>0.05)。

3 讨论

老年人因出现机能功能减退，免疫功能以及防御功能均出现不同程度的下降，支气管及气管黏膜上皮发生萎缩，引起肺泡组织萎缩和气道弹性组织减少，从而降低了气道的清除率，使老年人极易发生肺部感染[7-11]。老年肺部感染日益成为老年

表 3 两组治疗前后血清超敏 C 反应蛋白水平以及白细胞计数的对比($\bar{x}\pm s$)

Table 3 Comparison of the serum high sensitivity C reactive protein level and white blood count between two groups before and after treatment($\bar{x}\pm s$)

Groups	n		High sensitivity C reactive protein(mg/L)	White blood count(× 10^9/L)
Observation group	100	Before treatment	105.32± 5.79	16.18± 2.19
		After treatment	35.29± 2.73#*	7.13± 0.78#*
Control group	100	Before treatment	105.83± 5.19	16.24± 1.98
		After treatment	46.72± 3.19#	8.69± 0.53#

Note: Compared with the control group, *P<0.05; compared with before treatment, #P<0.05.

群体中具有较高发病率的一种呼吸系统疾病,随着病程的延长肺部感染会严重危害患者的生命安全。如何有效且安全治疗老年肺部感染具有重要的临床意义[12-16]。头孢哌酮可以通过抑制菌体细胞壁的合成,从而控制细菌的繁殖,对流感嗜血杆菌、肺炎链球菌、大部分β 溶血性链球菌、克雷伯杆菌、大肠杆菌、绿脓杆菌以及金黄色葡萄球菌等均有抑制作用,舒巴坦能抑制病原菌产生的毒素,增强抗特定酶的降解能力。

莫西沙星是广谱和具有抗菌活性的 8- 甲氧基氟喹诺酮类抗菌药,主要适用于敏感细菌引起的泌尿系统感染、肠道感染、腹腔感染等,尤其对肺部感染的治疗效果更佳。社区获得性老年肺部感染患者一般常见感染菌如肺炎链球菌、流感嗜血杆菌、需氧革兰阴性杆菌、非典型病原体如支原体、衣原体、军团菌等,莫西沙星基本覆盖,且对β- 内酰胺类和大环内酯类抗生素耐药的细菌亦有效。莫西沙星与血浆蛋白结合率较低,在肺组织中的穿透力强,能迅速渗透至肺泡巨噬细胞、支气管黏膜,从而有效快速灭杀病原体。

本研究结果显示观察组的有效率为 97.00%(97/100),明显高于对照组,而退热时间、止咳时间、肺 CT 病灶吸收时间以及肺部啰音消散时间均明显低于对照组,表明头孢哌酮舒巴坦联合莫西沙星治疗老年肺部感染的临床效果明显优于单纯给予头孢哌酮舒巴坦治疗。分析其原因为头孢哌酮舒巴坦虽然可以抑制革兰阴性菌以及革兰阳性菌所产生的β- 内酰胺酶,但其本身的抗菌活性较弱,使得单独使用时的抗菌谱较窄。而将头孢哌酮舒巴坦以及莫西沙星二者联合应用,两种不同作用机制的抗菌药物间具有协同抗菌效应,不仅可以扩大抗菌谱,使得其对多种头孢菌素耐药菌株引发的感染均有较好的效果,而且对革兰阴性杆菌可以发挥协同抗菌作用, 使抗菌作用明显增强,且安全性较高。

超敏 C 反应蛋白是一种主要由肝细胞合成且可以介导机体炎症反应的急性期反应蛋白,其水平的变化与组织损伤程度以及炎症反应程度呈正相关 [26-30]。超敏 C 反应蛋白在感染后 6-8 小时开始增高,24 小时达高峰, 是最敏感的一种急性期炎性蛋白,可以作为细菌感染的早期诊断指标,广泛用于临床炎症性疾病的诊断及对治疗效果的评估。本研究结果显示两组治疗后的血清超敏 C 反应蛋白水平以及白细胞计数均明显降低,且观察组更为明显,表明头孢哌酮舒巴坦联合莫西沙星可以有效改善老年肺部感染的炎症状态。

综上所述,头孢哌酮舒巴坦联合莫西沙星治疗老年肺部感染的临床效果明显优于单纯给予头孢哌酮舒巴坦治疗,不仅可以有效改善患者的临床症状、控制炎症,且具有较高的安全性。

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