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# 桂龙咳喘宁片联合抗菌药物对肺癌化疗后肺部感染的控制效果

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**摘要 目的:**探讨桂龙咳喘宁片联合抗菌药物对肺癌化疗后肺部感染的治疗效果,降低医院肺部感染发生率。**方法:**选择 2013 年 8 月~2015 年 8 月在我院确诊并接受化疗治疗的 120 例肺癌伴有肺部感染的患者,随机分为对照组(n=60)和实验组(n=60)。对照组患者给予头孢唑肟治疗,实验组在此基础上口服桂龙咳喘宁片,两组患者均持续治疗两周。比较两组治疗前后炎症指标,并观察两组临床疗效、住院时间、退热时间、咳嗽咳痰明显减少时间、肺部啰音消失时间及肺部细菌清除率。**结果:**实验组总有效率为 91.67%,明显高于对照组的 73.33%,具有显著性差异( $\chi^2=13.121$ ;  $P=0.004$ )。治疗前,两组 WBC、CRP 及 NEUT 水平比较,差异无统计学意义( $P>0.05$ );治疗后,两组 WBC、CRP 及 NEUT 水平均明显低于治疗前(均  $P<0.05$ ),且实验组均明显低于对照组( $P<0.05$ )。治疗后实验组患者肺部细菌清除率为 99.09%,明显高于对照组的 86.94%( $\chi^2=54.876$ ,  $P=0.000$ )。**结论:**桂龙咳喘宁片联合抗菌药物能够有效控制肺癌化疗后肺部感染,改善患者临床症状及炎症反应,值得临床上推广使用。

**关键词:**桂龙咳喘宁片;抗菌药物;肺癌;感染;疗效

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## Effect of Guilong Kechuanning Tablets Combine with Antibiotic Drugs on Pulmonary Infection after Chemotherapy in Patients with Lung Cancer

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**ABSTRACT Objective:** To investigate the effect of Guilong Kechuanning tablets combine with antibiotic drugs on pulmonary infection after chemotherapy in patients with lung cancer, so as to reduce the incidence of pulmonary infection in hospital. **Methods:** A total of 120 patients with lung cancer complicated with pulmonary infection, who underwent chemotherapy in Baoji Hospital of Traditional Chinese Medicine from August 2013 to August 2015, were selected and randomly divided into control group (n=60) and experiment group (n=60). The control group was treated with Ceftriaxone, based on which, the experiment group was added oral Guilong Kechuanning tablets. The course of treatment of the two groups was 2 weeks. Inflammation indicators of the two groups were compared before and after treatment, and the clinical effect, hospitalized time, antifebrile time, time significantly reduced of cough and expectoration, disappearance time of lung rales and the pulmonary bacterial clearance rate were observed between the two groups. **Results:** The total effective rate (91.67%) of experiment group was significantly higher than that (73.33%) of control group ( $\chi^2=13.121$ ,  $P=0.004$ ). Before treatment, there were no significant differences in WBC, CRP and NEUT levels between the two groups ( $P>0.05$ ); while after treatment, the levels of WBC, CRP and NEUT were all lower than those before treatment in both groups (all  $P<0.05$ ), and the levels of WBC, CRP and NEUT in the experiment group were lower than those in the control group ( $P<0.05$ ). After treatment, the bacterial clearance rate (99.09%) of the experiment group was significantly higher than that (86.94%) of the control group ( $\chi^2=54.876$ ,  $P=0.000$ ). **Conclusion:** Guilong Kechuanning tablets combined with antibiotic drugs can effectively control the pulmonary infection after chemotherapy in the patients with lung cancer, and can improve the clinical symptoms and inflammatory reaction, which is worthy of clinical application.

**Key words:** Guilong Kechuanning tablets; Antibiotic drugs; Lung cancer; Infection; Effect

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### 前言

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肺癌是最常见的恶性肿瘤之一,在我国甚至全球范围内,肺癌占有恶性肿瘤发病率的第一位<sup>[1,2]</sup>,严重威胁人类的生命和健康<sup>[3]</sup>。随着现代医疗技术进步,放化疗技术治疗肺癌得到长足发展,但其治疗有效性并未有明显改善<sup>[4]</sup>。肺部感染是肺癌最为常见的并发症之一<sup>[5]</sup>,在常规应用化疗措施治疗肺癌的过程

中,由于肺癌患者自身的免疫功能不足,再加上化疗药物也对患者免疫系统有一定的抑制作用,常导致患者伴有肺部感染,这也是引起肺癌患者高死亡率的重要原因之一<sup>[6]</sup>。有文献报道<sup>[7,8]</sup>,肺癌患者化疗后肺部感染的发生率为40%~52%。在控制肺部感染方面,抗生素具有较为显著的作用,而随着细菌耐药株的出现,先关抗生素对肺部感染的治疗效果越来越差<sup>[9]</sup>。有文献报道显示<sup>[10]</sup>,桂龙咳喘宁片具有抗菌、抗病毒、解热镇静的作用,对于肺部感染引起的发热、咳嗽、肺部啰音等症状有良好的改善效果。本研究通过观察桂龙咳喘宁片联合抗菌药物治疗化疗后肺癌伴有肺部感染患者的临床疗效,以期临床上采用有效药物降低该感染发生率提供一定的科研依据。

## 1 资料与方法

### 1.1 一般资料

选择2013年8月~2015年8月在我院确诊的肺癌伴有肺部感染的患者120例。病例纳入标准<sup>[11]</sup>:(1)年龄在75岁以下;(2)组织学或细胞学确诊为肺癌患者;(3)符合《实用内科学》肺部感染的诊断标准;(4)血常规、肝肾功能及凝血功能正常;<sup>[8]</sup>确诊肺癌后接受化疗3个疗程。病例排除标准<sup>[12]</sup>:(1)心、肝、肾功能不全者;(2)精神异常者;(3)妊娠期、哺乳期妇女;(4)不配合治疗者;(5)并发其他恶性肿瘤者。将120例患者按随机分组表分为实验组和对照组,各60例。实验组患者,年龄41~75岁,平均年龄为(63.32±1.21)岁;男性33例,女性27例;体重44~68 kg,平均体重为(54.18±2.63)kg;其中鳞癌24例、腺癌17例、大细胞癌19例;病理分期为IIA期27例、IIB期15例、IV期18例。对照组患者,年龄39~74岁,平均年龄为(62.81±1.32)岁;男性34例,女性26例;体重43~70 kg,平均体重为(53.97±3.43)kg;其中鳞癌22例、腺癌18例、大细胞癌20例;病理分期为IIA期28例、IIB期13例、IV期19例。两组患者年龄、性别、体重、病理类型和分期均无显著性差异( $P>0.05$ ),

具有可比性。所有患者均知情同意,自愿加入本研究,经医院伦理协会批准。

### 1.2 实验方法

对照组患者给予头孢唑肟,剂量为1g溶解于100 mL生理盐水中,静脉滴注,2次/天。在此基础上试验组患者加服桂龙咳喘宁片(江西药都仁和制药有限公司,规格0.41 g/片,国药准字Z20050134),5粒/次,3次/天,口服。两组患者均持续治疗两周。

### 1.3 观察指标

分别于治疗前后检测两组炎症指标,包括白细胞计数(WBC)、C反应蛋白(CRP)和中性粒细胞(NEUT)百分比,并培养分离肺部病原菌,统计菌落数,观察两组住院时间、退热时间、咳嗽咳痰明显减少时间及肺部啰音消失时间。

### 1.4 临床疗效评价

依据《实用内科学》<sup>[13]</sup>(第十一版)疗效评价标准:(1)显效:体温恢复至正常,肺部啰音、咳嗽、咳痰等症状消失,痰细菌涂片阴性,X片显示病灶吸收明显;(2)有效:体温降低,肺部啰音、咳嗽、咳痰等症状好转,痰细菌涂片阴性,X片显示病灶消散<50%;(3)无效:体温无降低,肺部啰音、咳嗽、咳痰等症状无好转迹象,痰细菌涂片阳性,X片显示病灶无吸收。总有效率=(显效病例数+有效病例数)/总病例数×100%。

### 1.5 数据处理

使用SPSS19.0软件包处理数据,计量资料以均数±标准差( $\bar{x} \pm s$ )表示,采用t检验,计数资料以率(%)表示,采用 $\chi^2$ 检验,以 $P<0.05$ 为有统计学意义。

## 2 结果

### 2.1 两组患者治疗后总有效率的比较

治疗后实验组患者总有效率为91.67%,明显高于对照组的73.33%,具有显著性差异( $\chi^2=13.121, P=0.004$ )。见表1。

表1 两组患者治疗后总有效率比较(%)

Table 1 Comparison of total effective rate in two groups after treatment(%)

| Groups           | n  | Effective |            | Valid |            | Invalid |            | Total effective rate |            |
|------------------|----|-----------|------------|-------|------------|---------|------------|----------------------|------------|
|                  |    | n         | Percentage | n     | Percentage | n       | Percentage | n                    | Percentage |
| Experiment group | 60 | 39        | 65.00      | 16    | 26.67      | 5       | 8.33       | 55                   | 91.67      |
| Control group    | 60 | 21        | 35.00      | 23    | 38.33      | 16      | 26.67      | 44                   | 73.33      |

### 2.2 两组患者治疗前后炎症指标变化的比较

治疗前,两组WBC、CRP及NEUT水平比较差异无统计学意义( $P>0.05$ );治疗后,两组均明显低于治疗前(均 $P<0.05$ ),且实验组均明显低于对照组,差异有统计学意义( $P<0.05$ )。见表2。

### 2.3 两组患者住院相关指标比较

实验组患者的住院时间、退热时间、咳嗽咳痰明显减少时间及肺部啰音消失时间均明显少于对照组,具有显著性差异( $P<0.05$ )。见表3。

### 2.4 两组患者细菌清除率比较

治疗后实验组患者肺部细菌清除率为99.09%,明显高于对照组的86.94%,具有显著性差异( $\chi^2=54.876, P=0.000$ )。见表4。

## 3 讨论

肺癌是一种严重影响我国居民健康的综合病症,并且其发病率和致死率呈逐年上升的趋势<sup>[14]</sup>。目前其治疗肺癌措施主要是化疗<sup>[15]</sup>,而患者在化疗的过程中,由于自身机体免疫力的下降及抗菌药物的广泛使用,往往继发有肺部感染<sup>[16,17]</sup>。且肺癌患者受肿瘤细胞浸润、年龄偏大或长期吸烟等不良生活习惯等因素影响,导致其肺功能减弱,机体其他组织器官也由于癌细胞浸润引起功能下降,对外界的抵抗能力下降,使肺部感染加重<sup>[18,19]</sup>。因此,肺癌患者化疗的肺部感染较普通感染更难治愈<sup>[20]</sup>。肺部感染多为细菌性感染,也有混合感染的可能,常伴随有全身炎症反应,并可能使肺血管损伤,进一步引发凝血功能的变化。目前临床感染多以具有光谱抗菌作用的第三代头孢为主,而头孢唑肟是第三代头孢的代表性药物,对敏感性菌株引起的炎症和感染均有较好的抑制作用<sup>[21]</sup>。但有研究显示<sup>[22]</sup>,随着抗菌药物的滥用、细菌耐药性的产生,单纯采用抗菌药物治疗效果已不明显。有研究显示<sup>[23]</sup>,中成药辅助治疗在对抗肺癌患者化疗后

表 2 两组患者治疗前后炎症指标比较( $\bar{x} \pm s$ )Table 2 Comparison of inflammatory indicators between two groups before and after treatment ( $\bar{x} \pm s$ )

| Groups           | Times            | WBC( $10^9/L$ )  | CRP (mg/L)        | NEUT (%)          |
|------------------|------------------|------------------|-------------------|-------------------|
| Control group    | Before treatment | 14.64 $\pm$ 1.92 | 55.48 $\pm$ 4.76  | 87.82 $\pm$ 6.45  |
|                  | After treatment  | 9.94 $\pm$ 1.02  | 17.65 $\pm$ 1.35  | 70.99 $\pm$ 3.24  |
| t                | -                | 16.745           | 59.225            | 18.061            |
| P                | -                | 0.000            | 0.000             | 0.000             |
| Experiment group | Before treatment | 14.53 $\pm$ 0.57 | 55.42 $\pm$ 2.97  | 86.78 $\pm$ 8.15  |
|                  | After treatment  | 7.55 $\pm$ 0.45* | 12.28 $\pm$ 0.99* | 62.69 $\pm$ 4.91* |
| t                | -                | 74.449           | 106.738           | 19.612            |
| P                | -                | 0.000            | 0.000             | 0.000             |

注:与对照组治疗后相比,\*P<0.05。

表 3 两组患者住院相关指标比较( $\bar{x} \pm s, d$ )Table 3 Comparison of hospital related indexes in two groups( $\bar{x} \pm s, d$ )

| Groups           | n  | Hospitalization time | Antifebrile time | Cough and expectoration significantly reduce time | Lung rales disappearance time |
|------------------|----|----------------------|------------------|---------------------------------------------------|-------------------------------|
| Experiment group | 60 | 20.35 $\pm$ 2.28     | 3.10 $\pm$ 0.05  | 3.31 $\pm$ 0.05                                   | 3.73 $\pm$ 0.36               |
| Control group    | 60 | 28.82 $\pm$ 2.70     | 4.13 $\pm$ 0.03  | 4.75 $\pm$ 0.08                                   | 4.72 $\pm$ 0.26               |
| t                |    | 3.498                | 37.723           | 30.838                                            | 3.408                         |
| P                |    | 0.040                | 0.000            | 0.000                                             | 0.042                         |

表 4 两组患者细菌清除率比较

Table 4 Comparison of bacterial clearance rate in two groups

| Groups           | Average colony number (CFU/cm <sup>2</sup> ) |                 | Clearance rate (%) |
|------------------|----------------------------------------------|-----------------|--------------------|
|                  | Before treatment                             | After treatment |                    |
| Experiment group | 482                                          | 4.40            | 99.09              |
| Control group    | 497                                          | 64.90           | 86.94              |

引发的肺部感染上有良好的效果,而桂龙咳喘宁片在抗炎和提高免疫能力方面均具有一定的作用,因此本研究在头孢唑肟的基础上辅以中成药桂龙咳喘宁片进行治疗,观察其治疗效果。

本研究结果显示,采用桂龙咳喘宁片联合敏感抗菌药物治疗的患者,其总有效率及肺部细菌清除率明显高于单纯采用抗菌药物治疗的患者,与相关研究结果相符<sup>[24]</sup>,桂龙咳喘宁片由龙骨、黄连、桂枝、牡蛎、白芍、法半夏、生姜、瓜蒌子、苦杏仁、炙甘草、大枣等成分组成,具有抗菌、抗病毒、解热镇静、止咳祛痰等作用<sup>[25,26]</sup>。桂龙咳喘宁片中各中药成分和敏感抗菌药物发挥了协同抗菌抗病毒作用,疗效加强。而联合治疗患者的住院时间、退热时间、咳嗽咳痰明显减少时间及肺部啰音消失时间均明显少于对照组(P<0.05)。说明联合治疗能使肺癌患者浓痰变稀,改善呼吸困难症状,使患者的病情得到明显改善<sup>[27,28]</sup>。另外,本研究结果显示,治疗后,两组患者的WBC、CRP及NEUT均明显低于治疗前(P<0.05)。实验组患者治疗后的WBC、CRP及NEUT均明显低于对照组患者治疗后(P<0.05)。提示桂龙咳喘宁片联合敏感抗菌药物能够使肺癌患者各炎症指标得到明显改善,这可能是由于桂龙咳喘宁片能够加强患者机体免疫能力、提升血氧饱和度、刺激白细胞吞噬功能,从而消除炎症有关,且结合抗菌药物的杀菌作用,效果得到加强。刘辰龙、刘怡妍等人<sup>[29,30]</sup>也得出相似研究结果。

综上所述,桂龙咳喘宁片联合抗菌药物能够有效控制肺癌化疗后肺部感染,显著改善患者症状及炎症反应,缩短患者住院治疗时间,值得在临床上推广应用。

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