# 胸腔灌注化疗与胸腔循环热灌注化疗治疗非小细胞肺癌胸腔积液疗效 比较

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**Title:** Efficacy comparison of pleural effusion of non-small cell lung cancer treated by thoracic infusion chemotherapy and thoracic cyclic hyperthermia chemotherapy

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**关键词:** 非小细胞肺癌(NSCLC); 胸腔积液; 化疗; 胸腔循环热灌注; 胸腔灌注化疗

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**摘要:** 目的：探讨与胸腔灌注化疗相比胸腔循环热灌注化疗治疗非小细胞肺癌(NSCLC)胸腔积液的临床疗效，并分析其安全性。方法：选择88例NSCLC合并胸腔积液的患者，随机分为对照组和研究组，每组各44例，对照组应用化疗药物胸腔注入治疗；研究组患者给予胸腔循环热灌注化疗。评估临床疗效、引流管滞留时间、总生存期(OS)、不良反应和毒副反应，并检测两组患者治疗前后外周血C反应蛋白（CRP）、胸腔积液总蛋白定量，应用KPS评分评估患者生存质量。结果：研究组总有效率、OS和KPS评分分别为88.64%（39/44）、（13.45±0.90）个月和（69.82±4.16）分，高于对照组75.00%（33/44）、（10.26±0.84）个月和（67.45±4.06）分，差异具有统计学意义（P<0.05）。研究组引流管滞留时间、血清CRP、胸腔积液总蛋白定量分别为（3.21±0.09） d、（12.53±2.28） mg/L和（22.63±3.48） g/L，低于对照组（4.39±0.11） d、（18.39±2.16） mg/L和（27.49±3.70） g/L，差异具有统计学意义（P<0.05）。研究组患者骨髓抑制、胸痛和胃肠道反应Ⅲ+Ⅳ度发生率分别为15.91%（7/44）、25.00%（11/44）和13.64%（6/44），均低于对照组29.55%（13/44）、36.36%（16/44）和25.00%（11/44），差异具有统计学意义（P<0.05）。研究组患者心衰、肺水肿、气胸、感染总发生率为11.36%（5/44），低于对照组27.27%（12/44），差异具有统计学意义（P<0.05）。结论：胸腔循环热灌注化疗治疗NSCLC胸腔积液临床疗效显著，能够明显缩短引流管滞留时间，降低蛋白量，减弱不良反应和毒副反应，显著提高患者生存期和生存质量。

**Abstract:** Objective：To explore the clinical efficacy of pleural circulatory hyperthermic perfusion chemotherapy for the treatment of pleural effusion of non-small cell lung cancer（NSCLC) and analyze its safety，compared with thoracic infusion chemotherapy.Methods：88 NSCLC patients with pleural effusion were randomly selected and divided into control group and study group，44 cases in each group.The control group received thoracic injection of chemotherapeutic drugs，and the study group received thoracic circulation thermal infusion chemotherapy.The clinical efficacy，overall survival（OS)，drainage tube residence time and adverse reactions and toxic side effects were evaluated，and the peripheral blood C-reactive protein（CRP)，total pleural effusion quantification were measured，and KPS scores was used to assess the quality of life before and after treatment in both groups.Results：The total effective rate，OS and KPS score of the study group were 88.64%（39/44)，(13.45±0.90) months and （69.82±4.16) points，higher than the control group 75.00%（33/44)，(10.26±0.84) months and （67.45±4.06) points，and the difference was statistically significant（P<0.05).The retention time of drainage tube，serum CRP and total pleural fluid protein of the study group were （3.21±0.09) d，(12.53±2.28) mg/L and (22.63±3.48) g/L，lower than the control group（4.39±0.11) d，(18.39±2.16) mg/L and （27.49±3.70) g/L，and the difference was statistically significant（P<0.05).The Ⅲ+Ⅳ grade incidence of myelosuppression，chest pain，and gastrointestinal reaction in the study group were 15.91%（7/44)，25.00%（11/44) and 13.64%（6/44)respectively，lower than the

control group 29.55%（13/44），36.36%（16/44) and 25.00%（11/44），and the differences were statistically significant（P<0.05).The total incidence of heart failure，pulmonary edema，pneumothorax and infection in the study group was 11.36%（5/44），which was lower than the control group 27.27%（12/44），and the difference was statistically significant（P<0.05).Conclusion：The clinical effect is significant by thoracic circulation thermal infusion chemotherapy for the treatment of NSCLC pleural effusion.It can significantly shorten the residence time of the drainage tube，reduce the amount of protein，reduce the adverse reactions and toxic side effects，and significantly improve the survival time and quality of life of patients.

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