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组织特异性CD/5-FC系统热化疗治疗裸鼠结肠癌肝转移瘤的安全性 [点此下载全文](#)

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摘要:

目的:探讨组织特异性胞嘧啶脱氨酶/5-氟胞嘧啶(CD/5-FC)系统热化疗对裸鼠结肠癌肝转移模型治疗的安全性。方法:30只裸鼠经门静脉注射转染CD基因的结肠癌LOVO细胞,建立结肠癌肝转移模型,随机分为对照组、热化疗组和化疗组,分别经腹腔注射生理盐水、43℃前药5-FC和室温前药5-FC[均为500mg/(kg·d)]进行治疗。治疗21d后处死裸鼠,取各组裸鼠肝脏转移瘤组织、正常肝组织及胃、肺、胰腺、小肠及大肠组织作病理检测;RT-PCR检测各组织的CD基因表达。结果:常规病理检测显示对照组肝转移瘤组织细胞生长活跃,热化疗组较化疗组肝转移瘤细胞生长受抑制更明显;3组裸鼠正常肝组织及胃、肺、胰腺、小肠和大肠组织均呈正常形态,无明显病理改变。RT-PCR检测显示,3组肝脏转移瘤组织CD基因表达稳定,均见154bp条带;显示3组裸鼠正常肝组织及胃、肺、胰腺、小肠和大肠组织均无CD基因表达。结论:组织特异性CD/5-FC系统热化疗明显提高了CD基因表达的靶向性,减少了热化疗引起的正常组织损伤,该治疗系统有较好的安全性。

关键词: [结肠癌](#) [肝转移](#) [胞嘧啶脱氨酶/5-氟胞嘧啶](#) [基因治疗](#) [安全性](#)

Tissue specific CD/5-FC system thermochemotherapy in treatment of a liver metastasis model of colon cancer in nude mice: the safety [Download Fulltext](#)

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Abstract:

Objective: To study the safety of tissue specific cytosine deaminase /5 fluorocytosine (CD/5-FC) system thermochemotherapy in treatment of a liver metastasis model of colon cancer in nude mice. Methods: Liver metastasis model was established by intravenously injection of LOVO cell lines harboring tissue specific CD gene in 30 nude mice. The mice were then randomly divide into three groups, namely, a control group, a thermochemotherapy group, and a chemotherapy group; the three groups were intraperitoneally injected with sodium saline, 43℃ pro drug 5-FC or pro drug 5-FC, respectively. After 21 days, the animals were sacrificed and the pathological changes of liver, stomach, lung, pancreas, small intestine, and large intestine were examined by H E staining. RT-PCR was used to study the expression of CD gene. Results: The growth of tumor cells in the control group grew actively, and the growth in the 43℃ pro drug 5-FC group was greatly inhibited compared with those in the pro drug 5-FC and normal saline groups. The normal liver, stomach, lung, pancreas, small intestine and large intestine tissues showed no pathological changes and no CD expression. RT-PCR examination revealed stable CD gene expression in the 3 groups. Conclusion: Tissue specific CD/5-FC system thermochemotherapy can improve the specificity of CD gene expression, and reduces the damages to the normal tissues by the thermochemotherapy.

Keywords: [Colon cancer](#) [Liver metastasis](#) [cytosine deaminase/5 fluorocytosine](#) [gene therapy](#) [safety](#)

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