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CpG对X线放射治疗Lewis肺癌小鼠移植瘤的增敏效应 点此下载全文

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摘要：

目的: 探讨含胞嘧啶 磷酸盐 鸟嘌呤基序的寡脱氧核苷酸（cytosine phosphate guanine oligodeoxynucleotide，CpG C
癌的放疗增敏作用。方法: 在小鼠右前腋窝接种Lewis肺癌细胞，制备荷瘤小鼠模型，将32只荷瘤小鼠随机分为4组：对照组，无任
1、3、5、8、10、12天照射，总剂量18 Gy； CpG组，第1、3、5、8、10、12天注射，每次腹腔注射CpG ODN 0.05 mg；D
射前6 h腹腔注射CpG ODN。观察各组移植瘤生长速度和各治疗组移植瘤生长延迟时间，H E染色法观察移植瘤组织病理变化，TUN
立荷Lewis肺癌小鼠模型，经治疗后各组小鼠移植瘤体积都较对照组明显减小（ P <0.01），CpG+X线照射组移植瘤体积最小；
为2.1 d，CpG组为2.3 d，CpG+X线照射组为4.8 d，CpG ODN的放射增敏比为2.09。H E染色病理观察到各治疗组都较对照组
最显著。TUNEL法检测对照组瘤组织细胞凋亡率为（2.75±0.89）%，X线照射组为（4.87±1.13）%，CpG组为（7.63±1.41
3±4.66）%；各治疗组都明显高于对照组，CpG+X线照射组显著高于X线放射组和CpG组(P <0.01)。结论: CpG ODN能明显
射敏感性，促进肿瘤细胞凋亡。

关键词：胞嘧啶 磷酸盐 鸟嘌呤基序寡脱氧核苷酸 Lewis肺癌 肿瘤生长延迟时间 放射增敏比 细胞凋亡

Enhancing effect of CpG on sensitivity of Lewis lung cancer to X ray radiation in mice Download Full

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Abstract:

Abstract Objective: To explore the role of cytosine phosphate guanine oligodeoxynucleotide (CpG ODN) in
radiosensitivity to X ray in mouse with Lewis lung cancer. Methods: The tumor bearing mouse model was induc
cancer cells into the right infra axillary dermis. Thirty two C57BL/6J mice were evenly randomized into 4 groups.
Group B: the X Ray radiation group; Group C: the CpG group; Group D: the CpG plus X Ray radiation group. Gr
radiation only (3 Gy/F, on day 1, 3, 5, 8, 10, and 12; the total dose was 18 Gy); group C was administered with
3, 5, 8, 10, and 12; group D was administered with CpG ODN 6 h before X ray radiation. The tumor growth and
were observed in all groups. Meanwhile, the pathological change of the tumor tissue was observed with H E
apoptosis of tumor cells were examined with the method of TUNEL. Results: The Lewis lung cancer bearing mo
established in mice. The tumor volumes of the treatment groups were smaller than that in the control group（
volume of group D was the smallest. The tumor growth delays were 2 1 d in group B, 2.3 d in group C, and 4.
sensitization enhancement ratio of CpG ODN was 2 09. H E staining showed that tumor necrosis in group B, C
than that of control group, with the most severe one found in group D. TUNEL results revealed that the apopto
0.89）% in group A, （4.87±1.13）% in group B, (7.63±1.41）% in group C, and （32.63±4.66）% in group D;
therapy group was higher than that in the control group, and that of the group D significantly higher tha
P <0 01). Conclusion: CpG ODN can dramatically increase the radiosensitivity of tumor cells and promote

Keywords:cytosine phosphate guanine oligodeoxynucleotide Lewis lung cancer tumor growth delay the sens
ratio apoptosis