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树突状细胞诱导的半相合CTL灭活后对小鼠移植肺癌的抑制作用 点此下载全文

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摘要：

目的：探讨60Co灭活的树突状细胞（dendritic cell，DC）诱导的MHC半相合细胞毒性T淋巴细胞（cytotoxicity T lymphocyte，CTL）回输的抗小鼠移植肺癌作用。方法：体外培养CB6F1小鼠来源的DC，流式细胞术检测DC表型，用CB6F1-DC诱导针对C57BL/6小鼠来源的转移性肺癌细胞（Lewis lung cancer，LLC）的细胞毒性T细胞（cytotoxicity T lymphocyte，CTL），经60CO灭活的CTL回输给荷LLC瘤C57BL/6小鼠。细胞毒实验检测CTL细胞的抗肺癌效应，病理检测荷瘤小鼠肝、脾、小肠、皮肤变化，观察移植物抗宿主病（graft-versus-host-disease，GVHD）的发生及肺部肿瘤转移情况，观察荷瘤小鼠的存活时间。结果：流式细胞检测证实培养出成熟DC。DC诱导的CTL灭活后回输治疗LLC肺转移瘤小鼠后，小鼠肺质量显著降低\[（0.27±0 06） vs （0.52±0.07）g， P ＜0.05\]，平均生存期显著延长\[（78.10±16.50） vs （49.30±6.45）d， P ＜0.05\]。荷瘤小鼠脾淋巴细胞对LLC细胞的杀伤活性随着效靶比的增加逐渐增强，最大杀伤率可达（32.7±1.64）%（效靶比100：1）。病理检测结果显示，治疗组荷瘤小鼠未见明显GVHD。结论：灭活的半相合CTL回输可以诱导机体抗肿瘤反应，降低小鼠移植肺癌转移，未出现明显的GVHD。

关键词：肺癌 免疫治疗 半相合 肿瘤特异性CTL

Inhibitory effect of inactivated-haploidentical CTL induced by allogeneic dendritic cells on mouse transplanted lung cancer Download Fulltext

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Abstract:

Objective: To investigate the anti-lung cancer effect after infusion of 60Co inactivated-MHC haploidentical cytotoxicity T lymphocytes (CTLs) induced by dendritic cells (DCs). Methods: DCs were cultured from CB6F1 mice and their phenotype was detected by flow cytometry. Mature DC-induced CTLs against metastatic lung cancer cells (Lewis lung cancer, LLC) derived from C57BL/6 mice were cultured in vitro . The LLC tumor bearing C57BL/6 mice were treated with 60Co-inactivated CTL. The anti-lung cancer effect of CTL was identified through cell-mediated cytotoxicity assay. Pathological examination of the liver, spleen, intestinum tenue and skin was performed to observe the graft versus host disease (GVHD) and lung cancer metastasis. The survival time of tumor bearing mice was observed. Results: FCM analysis showed that mature DCs were expanded. The lung weight of LLC metastatic mice treated with inactivated-CTL was decreased obviously (\[0.27±0.06\] vs \[0.52±0.07\] g, P <0.05); and the mean survival time of treated mice prolonged (\[78.10±16.50\] vs \[49.30 ±6.45\] d, P <0.05). The cell-mediated cytotoxicity of the spleen leukocytes against LLC increased along with the ratio of effector to target (the highest cytotoxicity was \[32.7±1.64\]% when effector〖DK〗：target =100〖DK〗：1). There was no obvious GVHD in pathological findings. Conclusion: Inactivated haploidentical CTL can induce antitumor immunological responses and reduce lung cancer metastasis without obvious GVHD.

Keywords:lung tumor immunotherapy haploidentical tumor-specific CTL

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