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寡克隆肝癌浸润淋巴细胞的制备及其对自体癌细胞的杀伤活性 点此下载全文

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摘要：

目的：建立一种新的寡克隆肝癌浸润淋巴细胞（tumor infiltrating lymphocyte，TIL）分离培养方法，获得具有更强自体肝癌细胞杀伤活性的TIL。方法：以新鲜切除的人肝癌组织标本为材料，分别采用酶消化结合整块肝癌组织机械处理的传统方法和微小肝癌组织块培养的方法分离制备常规TIL和寡克隆TIL，培养2周后，将靶细胞毒活性较高的寡克隆TIL合并进一步培养扩增，采用MTT法分析不同寡克隆TIL对自体肝癌细胞的杀伤活性，比较不同寡克隆TIL之间、常规TIL和寡克隆TIL对自体肝癌细胞的杀伤活性。结果：在含有IL-2的培养体系中，TIL可自行从微小肝癌组织块中逐渐浸润出来并增殖。各个寡克隆TIL对自体肝癌细胞均有一定的杀伤活性，但是不同寡克隆TIL对于自体肝癌细胞的细胞毒活性有明显差异（ P ＜0.01），寡克隆肝癌TIL对于自体肝癌细胞的细胞毒活性明显高于常规肝癌TIL\[（72.56±6.69）% vs （46.24±4.03）%， P <0.01\]。结论：寡克隆TIL分离培养方法制备的寡克隆肝癌TIL较常规TIL具有更强的自体肝癌细胞杀伤活性。

关键词：肿瘤浸润淋巴细胞 肝癌 寡克隆扩增 细胞毒活性

Preparation of oligoclonal hepatocellular carcinoma-infiltrating lymphocytes and their cytotoxicity to autologous cancer cells Download Fulltext

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Abstract:

Objective : To develop a novel method for isolation and culture of the oligoclonal tumor-infiltrating lymphocytes (TILs) with a stronger cytotoxic activity to autologous hepatoma carcinoma cells. Methods: Fresh human hepatocellular carcinoma (HCC) tissues were dissected to prepare conventional TILs and oligoclonal TILs by the way of enzymatic digestion with physical disaggregation and the new way of oligoclonal TILs culture from a single tumor fragment in microcultures. After 2-week culture, the oligoclonal TILs with a stronger cytotoxic activity were mergered for further expending. Different TILs-mediated lysis of HCC cells in vitro was determined by colorimetric tetrazolium (MTT) assay to compare the specific cytotoxicity between different oligoclonal TILs and between bulk TILs and oligoclonal TILs. Results: Lymphocytes could gradually migrate out of each tumor fragment and expand in the culture with high levels of IL-2. Oligoclonal TILs generated from different fragments showed different cytotoxic activities against autologous HCC cells, and the difference in cytotoxic activity between different oligoclonal TILs was significant (P <0.01). Moreover, the cytotoxic activity of oligoclonal TILs was significantly stronger than that of bulk TILs (\[72.56±6.69\]% vs \[46.24±4 03\]%, P <0.01). Conclusion: The cytotoxic activity against autologous HCC cells of oligoclonal TILs generated from HCC tissues is much stronger than that of conventional TILs.

Keywords:tumor-infiltrating lymphocytes hepatocellular carcinoma oligoclonal expansion cytotoxic activity

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