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膀胱肿瘤患者外周血源性树突状细胞表型及免疫功

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Title: Phenotype and metergasis of dendritic cells from peripheral blood of bladder carcinoma patients

作者: 刘星; 梁平; 周波; 张克勤; 靳风烁; 李彦锋
第三军医大学大坪医院野战外科研究所泌尿外科

Author(s): Liu Xing; Liang Ping; Zhou Bo; Zhang Keqin; Jin Fengshuo; Li Yanfeng
Department of Urology, Institute of Surgery Research , Daping Hospital, Third Military Medical University, Chongqing, 400042, China

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摘要: 目的 探讨膀胱肿瘤患者外周血源性树突状细胞（dendritic cells,DCs）的表型及免疫功能变化。 方法 通过密度梯度离心法从膀胱肿瘤患者和正常人外周血分离单个核细胞，加rhGM-CSF和rhIL-4诱导培养树突状细胞，采用流式细胞仪检测2组DCs表达程序性死亡配体-1（PD-L1）、CD1a、HLA和CD83的变化，混合淋巴细胞反应检测其刺激T淋巴细胞增殖能力和ELISA法检测分泌IL-10和IL-12的变化。 结果 膀胱肿瘤患者外周血DCs表达PD-L1[（95.06±4.06）% *vs* （76.63±6.90）%]和分泌IL-10[（214.00±13.75） pg/mL *vs* （83.78±7.95）pg/mL]的水平显著高于正常组（$P<0.05$），DCs表达CD83[（16.20±1.91）% *vs* （35.53±1.58）%]及刺激淋巴细胞增殖的能力均低于正常组水平（$P<0.05$）。 结论 膀胱肿瘤患者外周血源性树突状细胞高表达PD-L1、低表达CD83及过多分泌IL-10可能是膀胱肿瘤发生免疫逃逸的原因之一。

Abstract: Objective To investigate the phenotype and metergasis of dendritic cells (DCs) in peripheral blood of patients with bladder carcinoma. Methods DCs were isolated from the peripheral blood of patients with bladder carcinoma and healthy subjects by density gradient centrifugation, respectively, and then the 2 groups of DCs were cultured in vitro with rhGM-CSF and rhIL-4 induction. The expression levels of PD-L1 , CD1a, HLA and CD83 on the DCs were detected by flow cytometry, and the proliferation of lymphoid cells

stimulated by the 2 groups of DCs were tested by mixed lymphocyte reaction. ELISA was used to measured the levels of IL-10 and IL-12 secreted by the 2 groups of DCs. Results The expression level of PD-L1 [(95.06±4.06)% *vs* (76.63±6.90)%] and the content of IL-10 secreted by DCs (214.00±13.75 *vs* 83.78±7.95 pg/mL) were significantly higher in the bladder carcinoma patients than in the normal control, whereas, CD83 expression level was significantly reduced [(16.20±1.91)% *vs* (35.53±1.58)%, $P<0.05$]. Moreover, the proliferation of lymphoid cells stimulated with DCs was decreased in patient group than in healthy subject group. Conclusion Bladder carcinoma patients, DCs have a phenotype of over-expressing PD-L1 , over-secreting IL-10 and down-expressing CD83. The changed phenotype may be one of possible mechanisms of immune evasion of the tumor.

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