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流感疫苗促进髓系白血病骨髓细胞来源树突状细胞的功能 [点此下载全文](#)

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摘要:

目的: 研究流感疫苗对髓系白血病骨髓源性树突状细胞 (dendritic cells, DCs) 功能的影响及其机制。方法: 分离髓系白血病患者[急性髓细胞白血病 (acute myeloid leukemia, AML) 19例, 慢性髓细胞白血病 (chronic myeloid leukemia, CML) 8例]骨髓单个核细胞 (mononuclear cell, MNC), 用GM-CSF和IL-4诱导7 d, 获得未成熟白血病DCs, 然后加入全病毒灭活流感疫苗 (whole inactivated influenza vaccine, WIV)、裂解病毒流感疫苗 (split influenza vaccine, SIV) 或TNF- α 继续培养24 h。R-显带法分析DCs染色体核型, 流式细胞仪检测DCs表型, ELISA法测定DCs培养上清IL-12的水平, CCK8法检测DCs诱导的CTL对自体白血病细胞的细胞毒作用。结果: 19例AML患者中的15例及8例CML患者的MNC全部成功诱导出DCs。与TNF- α 刺激的白血病DCs相比, 流感疫苗刺激的白血病DCs表面分子 (CD80、CD83、CD86、HLA-DR) 表达明显上调 ($P < 0.05$), 培养上清中IL-12的分泌水平明显增加 ($P < 0.05$), 其诱导的CTL可显著杀伤自体白血病细胞 ($P < 0.05$); WIV刺激的DCs在表型、IL-12分泌水平及细胞毒作用方面均较SIV刺激的DCs显著增高 ($P < 0.05$)。结论: 流感疫苗促进髓系白血病源DCs表型成熟及IL-12的分泌, 增强其诱导的CTL对自体白血病细胞的杀伤作用。

关键词: [流感疫苗](#) [树突状细胞](#) [髓系白血病](#) [细胞毒性T淋巴细胞](#)

Influenza vaccine enhances function of dendritic cells derived from bone marrow of patients with myeloid leukemia [Download Fulltext](#)

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Abstract:

Objective: To determine whether the influenza vaccine can affect the function of dendritic cells (DCs) derived from the bone marrow of patients with myeloid leukemia and the possible mechanism. Methods: The bone marrow (BM) mononuclear cells were obtained from 19 patients with acute myelocytic leukemia (AML) and 8 patients with chronic myeloid leukemia (CML), and were cultured with GM-CSF and IL-4 for 7 days to obtain immature DCs. Then DCs were stimulated by whole inactivated influenza vaccine (WIV), split influenza vaccine (SIV), or TNF- α . After 24 h, phenotypes and karyotypes of these DCs were assessed by FACS and R-band karyotype analysis, respectively. The supernatant IL-12 levels were measured by ELISA in each group. Cytotoxic activity of CTL induced by differently treated DCs was measured by CCK8 assay. Results: DCs were successfully induced in 15 of the 19 AML patients and all the 8 CML patients. After stimulated with WIV or SIV for 24 h, DCs exhibited enhanced expression of CD83, CD86 and HLA-DR, and increased secretion of IL-12 (all $P < 0.05$). CTL induced by WIV or SIV stimulated DCs specifically killed autologous leukemia cells in vitro ($P < 0.05$). Furthermore, WIV stimulated DCs were more powerful than SIV stimulated DCs in killing target cells ($P < 0.05$). Conclusion: Influenza vaccine can promote the maturation and IL-12 secretion of DCs derived from myeloid leukemia patients, and CTL induced by influenza vaccine stimulated DCs has a stronger ability to kill autologous leukemia cells.

Keywords: [influenza vaccine](#) [dendritic cell](#) [myeloid leukemia](#) [cytotoxicity T lymphocyte](#)

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