蜂王乳之免疫調節活性及對人類白血病細胞(U937)之抑制效果

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摘 要

本研究以蜂王乳(RJ)為原料探討利用磷酸緩衝溶液(PBS)萃取(PRJ)、鹼萃取(ARJ)，及加熱處理(HRJ)與模擬胃腸道酵素消化處理(ERJ)，探討蜂王乳不同處理後之免疫調節活性及經由直接與間接模式對白血病U937細胞生長之影響。 研究結果顯示： 1.不同處理之蜂王乳對U937細胞培養5天其抑制效果優於培養3天之抑制率。在直接抑制方面以RJ抑制效果為最高，達36.65 %；在間接抑制方面則以ERJ抑制效果最高，達62.39 %。 2.在細胞激素分泌量方面，不同處理之蜂王乳與單核細胞共同培養之條件培養液之細胞激素含量與對照組相比較下，皆有顯著提升的效果。在IL-1β方面，以ARJ分泌量為最高，達1373.35 pg/mL；在IFN-γ方面，以ERJ之分泌量遠高於其它樣品，達34448 pg/mL；在TNF-α方面，以ARJ為最高，達5287.08 pg/mL。 3.在NO分泌量方面，將不同處理之蜂王乳對人類單核細胞刺激3天後，其條件培養液中NO含量與PBS及Medium相比，有提升的趨勢。其中以ARJ刺激的分泌量最高，達1.96 μM/mL，但ERJ與控制組相比，NO之分泌量則是有下降的趨勢。 4.在刺激人類單核細胞之生長比例方面，不同處理之蜂王乳與控制組PBS相比，在特定濃度下有刺激人類單核細胞之生長，其中以HRJ刺激人類單核細胞之增生率為最高，達1.16 。

關鍵詞 : 蜂王乳、白血病細胞U937、細胞激素、免疫調節活性

目錄

授權書iii 中文摘要iv 英文摘要vi 誌謝viii 目錄x 圖目錄xiv 表目錄xv 附錄目錄xvii 符號說明xviii 1. 緒論1 2. 文獻回顧2 2.1 蜂王乳2 2.1.1 蜂王乳之生成2 2.1.2 蜂王乳之蛋白質成分及細胞活性2 2.1.3 蜂王乳之藥理作用3 2.2 癌症4 2.2.1 癌症之定義4 2.2.2 一般癌症形成的主要原因4 2.2.3 癌症治療5 2.2.4 白血病分類與治療6 2.2.5 人類白血病細胞株(U937)7 2.3 免疫系統8 2.3.1 先天或非專一性免疫防禦機制8 2.3.2 後天或專一性免疫防禦機制10 2.4 免疫系統的細胞12 2.4.1 T淋巴球12 2.4.2 B淋巴球13 2.4.3 自然殺手細胞14 2.4.4 巨噬細胞14 2.5 細胞激素15 2.5.1 腫瘤壞死因子19 2.5.2 介白素20 2.5.3 干擾素20 2.5.4 一氧化氮21 3. 材料與方法23 3.1 實驗材料23 3.1.1 蜂王乳23 3.1.2 實驗細胞23 3.1.3 實驗藥品23 3.1.4 儀器設備24 3.2 實驗方法26 3.2.1 實驗流程26 3.2.2 蜂王乳之處理26 3.2.3 基本成分分析28 3.2.4 NuPAGE Bis-Tris gel 電泳法30 3.2.5 蜂王乳經由直接模式對U937細胞抑制作用之實驗32 3.2.6 蜂王乳經由間接模式對U937細胞抑制作用之實驗34 3.2.7 樣品-單核細胞條件培養液細胞激素之含量測定36 3.2.8 樣品-單核細胞條件培養液一氧化氮含量之測定38 3.2.9經由樣品刺激後人類單核細胞之生長比例39 3.3 統計分析40 4. 結果與討論41 4.1 蜂王乳組成分及蛋白質定量分析41 4.2 電泳分析45 4.3 不同處理蜂王乳對白血病細胞U937生長之直接抑制效果47 4.4 不同處理蜂王乳對白血病細胞U937生長之間接抑制效果51 4.5 不同處理蜂王乳刺激單核球細胞分泌細胞激素之能力58 4.5.1不同處理蜂王乳刺激單核球細胞分泌IL-1β之能力58 4.5.2不同處理蜂王乳刺激單核球細胞分泌IFN-γ之能力63 4.5.3 不同處理蜂王乳刺激單核球細胞分泌TNF-α之能力67 4.5.4 分析LPS對條件培養液中細胞激素含量之影響72 4.6不同處理蜂王乳刺激單核球細胞分泌NO之能力75 4.7不同處理蜂王乳刺激人類單核細胞之生長比例78 5. 結論84 參考文獻87 圖目錄 圖2.1 細胞激素的信號傳遞途徑17 圖2.2 細胞激素的特有性18 圖3.1 實驗流程圖27 圖4.1 不同處理蜂王乳之電泳分析46 圖4.2 分析添加LPS對不同處理之蜂王乳條件培養液中IL-1β含量之影響73 圖4.3 分析添加LPS對不同處理之蜂王乳條件培養液中TNF-α含量之影響74 圖4.4 蜂王乳刺激人類單核細胞1和3天後之細胞生長率79 圖4.5 加熱處理之蜂王乳刺激人類單核細胞1和3天後之細胞生長率80 圖4.6 磷酸緩衝溶液萃取之蜂王乳刺激人類單核細胞1和3天後之細胞生長率81 圖4.7 鹼萃取之蜂王乳刺激人類單核細胞1和3天後之細胞生長率82 圖4.8 模擬胃腸道酵素消化之蜂王乳刺激人類單核細胞1和3天後之細胞生長率83 表目錄 表2.1 免疫細胞於專一性及非專一性免疫之角色9 表2.2 腫瘤細胞的辨識與毒殺於體液性及細胞細免疫機制11 表3.1 NuPAGE 樣品之製備31 表4.1 生鮮蜂王乳之一般組成42 表4.2 不同處理蜂王乳之蛋白質含量43 表4.3 不同處理蜂王乳之收率44 表4.4 不同處理蜂王乳以直接作用模式對U937細胞培養3天之生長抑制率之影響49 表4.5 不同處理蜂王乳以直接作用模式對U937細胞培養5天之生長抑制率之影響50 表4.6 不同處理蜂王乳刺激人類單核細胞1天後對U937細胞培養3天之生長抑制率之影響54 表4.7 不同處理蜂王乳刺激人類單核細胞1天後對U937細胞培養5天之生長抑制率之影響55 表4.8 不同處理蜂王乳刺激人類單核細胞3天後對U937細胞培養3天之生長抑制率之影響56 表4.9 不同處理蜂王乳刺激人類單核細胞3天後對U937細胞培養5天之生長抑制率之影響57 表4.10 以不同處理蜂王乳刺激人類單核球細胞1天後之IL-1β含量61 表4.11 以不同處理蜂王乳刺激人類單核球細胞3天後之IL-1β含量62 表4.12 以不同處理蜂王乳刺激人類單核球細胞1天後之IFN-γ含量65 表4.13 以不同處理蜂王乳刺激人類單核球細胞3天後之IFN-γ含量66 表4.14 以不同處理蜂王乳刺激人類單核球細胞1天後之TNF-α含量70 表4.15 以不同處理蜂王乳刺激人類單核球細胞3天後之TNF-α含量71 表4.16 以不同處理蜂王乳刺激人類單核球細胞1天後之NO含量76 表4.17 以不同處理蜂王乳刺激人類單核

球細胞3天後之NO含量77 表5.1 不同處理之蜂王乳在本研究中各實驗之最佳濃度86 附錄目錄 附錄一 人類IL-1β之標準曲線99 附錄二 人類IFN-γ之標準曲線100 附錄三 人類TNF-α之標準曲線101 附錄四 一氧化氮以NaNO2測定表示之標準曲線102

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