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• 研究人員	劉正民 Liu, Cheng-Min		
• 中文關鍵字	癌症冬眠小鼠;中草藥;補中益氣湯;T 細胞淋巴球;抗腫瘤活性;免疫機制		
• 英文關鍵字	Tumor dormancy mouse; Chinese herbal medicine; Bu-Zhong-Yi-Qi-Tang; T cell lymphoma; Antitumor activity; Immune mechanism		
• 中文摘要	本實驗使用由T型淋巴癌(L-5178Y)產生的腫瘤冬眠期小鼠(DBA/2)模式檢測中藥補中益氣湯對小鼠腹腔中淋巴癌細胞生長之影響及其抗癌免疫機制。二十隻冬眠期之小鼠分爲給藥組及控制組(各十隻),給藥組每日給予口服 0.45mg/kg 補中益氣湯蒸餾萃取粉劑以生理實驗水稀釋,連續給藥7日。控制組則灌食等量之生理食鹽水。灌食前及灌食後以連續稀釋法(Serial end point dilution)計算各小鼠腹腔液中癌細胞的數量。結果顯示在控制組8隻小鼠(兩隻在實驗過程中死亡)其腹腔癌細胞數量沒有顯著的差異(t=0.2831,p>0.05)。而給藥組(10隻小鼠)則發現腹腔癌細胞數量有顯著的減少並具有統計學上的差異(t=2.7178,P<0.05)。兩組之腹腔液同時也用Flow cytometry 作 CD4/sup +/ CD8/sup +/,NK cells 及 Macrophage 細胞的分析,其結果顯示給藥組小鼠腹腔液中 CD4/sup +/及 CD8/sup +/的細胞數量均有顯著的增加(P=0.008,P=0.007),但 NK 細胞及 Macrophage 的數量並沒有顯著的影響。此一結果顯示補中益氣湯對癌細胞生長抑制作用可能主要是刺激 T 細胞的活化產生 Lymphokines 進而產生 Cytotoxic T cell 以消滅癌細胞。		
• 英文摘要	In this study, the anti-tumor effect of Bu-Zhong-Yi-Qi-Tan was evaluated by using L5178Y lymphoma tumor dormant mice model. Twenty dormant mice were divided into two groups (10 for each group), the number of tumor cells in its peritoneal cavity was enumerated by serial end-point dilution (SEPD). Bu-Zhong-Yi-Qi-Tan extract powder was dissolved in saline and gave to the treatment group orally (0.45 mg/kg) every day for 7 consecutive days. The same volume of saline was given to control group orally daily for 7 days. After treatment, the number of tumor cells in peritoneal cavity was enumerated by SEPD again to compare it with before treatment. The results indicated that the mice after		

Bu-Zhong-Yi-Qi-Tan treatment, the number of tumor cells harbor in peritoneal cavity were decreased significantly (t = 0.2831, p > 0.05). In

contrast, the control group without significant difference (t = 0.2831, p>0.05). The change of CD4/sup +/, CD8/sup +/, NK and Macrophage cells in peritoneal fluid were analyzed by flow cytometry. The results indicated that the CD4/sup +/, CD8/sup +/ were increased significantly (p = 0.008, p = 0.007 respectively) in treatment group of mice. However, there were no any change number in NK or macrophage in either treatment or control group of mice. We conclude that the anti-tumor effect of Bu-Zhong-Yi-Qi-Tan is mediated by activation of T lymphocytes to produce lymphokines and cytotoxic T cells to eradicate the tumor cells.