補中益氣湯對老鼠淋巴癌蟄伏狀況之治療與免疫調節

Treatment and Immunity Modulation of the L5178Y Murine tumor- dormant state by Bu-Zhong-Yi-Qi-Tan

中文摘要

由於目前主流醫學對末期癌症患者，並無法有效的醫治，臨床上民間超過 50% 的癌症病患(特別是末期患者)，選擇了使用生藥或中藥方來預防或治療癌症的復發。這些生藥或中藥方標榜著啓動和增強免疫力，來抑制或治療癌症的復發，並且副作用小，價錢低，使用方便。但是否真的有效來抗癌，大多數缺乏科學的證據。因此建立動物模式來檢測中藥方治療癌症的成效和免疫的機轉便有其必要性及重要性。

本實驗利用 DBA/2 小鼠先施以皮下 L5178Y 癌細胞注射，誘發腫瘤生成及腫瘤免疫形成後，切除皮下誘發生成的腫瘤，再施以腹腔 L5178Y 癌細胞腹腔灌注，使腫瘤免疫與腹腔內 L5178Y 癌細胞形成平衡狀況，達成所謂癌症蟄伏，再施以口服中藥藥物補中益氣湯 7 日的療程，後抽取等量之腹腔液， 進行分析比較腹腔液中 L5178Y 癌細胞的數量，並利用 Flow Cytometry 分析腹腔液中 CD-4 及 CD-8 的比值 NK cell， macrophage 的數量。嘗試利用動物模式來檢測中藥方治療癌症的成效和免疫的機轉。實驗結果發現 CD-4 及 CD-8 的比值上升有明顯的意義 ，NK cell， macrophage 則無，不同於以往細胞激素的作用。相對於腹腔液中 L5178Y 癌細胞的減少亦有明顯的意義。同時我們比較控制組僅餵食生理食鹽水則無明顯的差異。

因此我們認爲:

1. 利用動物模式，所謂癌症蟄伏模式來進行檢測中藥方的免疫治療測試，有相當大的可行性。
2. 補中益氣湯所提供的免疫治療有明顯的意義。
3. 補中益氣湯可提升 T-cell，與細胞激素提升 NK，Macrophage 整合發展爲所謂雞尾酒療法，值得研究。

英文摘要

Herbs are very popular in clinical especially in the usage of preventing the recurrence of cancer in Taiwan. The benefit of herbs was low side effects, low price and easy to used compared to current immune therapy but the question come if the herbs really have an effect of reducing cancer, lack of scientific research was a common answer. So it is important for us to test the usage of herbs in increasing our immune system and reduce cancer in a animal test model.

The paper uses DBA/2 mice by injecting L5178Y Cancer cell epidermally. After inducing the formation of the tumor, we remove the tumor form the injection site

and then inject L5178Y into the abdominal cavity of the mice. By creating a balance amount between the tumor cell and the mice's immune system, to be cancer dormancy. Herbs (Bu-zhong-yi-Qi-Tan) was fed to the mice for over 7 days. And then some amount of the ascites (partial peritoneal larvage, PPL) was taken from the abdominal cavity of the mice. Then analysis the PPL to test the amount of the L5178Y tumor cell count and the difference of CD-4 and CD-8 and the difference of the NK cell and the amount of Macrophage by using Flow Cytometry. The result was the amount of L5178Y decrease and the amount of CD-4 increases, and no difference was found between the control group which was fed only with normal saline.

The result by using animal test model has conclude that herbs was effective in the treatment of cancer dormancy in increase the T-cell immune system and reduce the cancer cell level. So the Bu-zhong-Yi-Qi-Tan was effective in a immune therapy. The animal test model could play a way to check the immunity system.