Studies on Inhibition of Prostate Cancer Cell Proliferation By Essiac

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Prostate cancer is the second most common type of cancer found in men fifty and older. Unfortunately the symptoms appear only in the latter stages of the disease when the risk of metastasis is greater. Due to the ineffectiveness of currently available treatments, cancer patients are turning to alternative treatments like herbs. The purpose of this research is to help in the search for a compound that will inhibit the growth of prostate cancer cells by testing the effects of a selected herbal remedy on the proliferation of the cancerous cells. Essiac was chosen due to the fact that it is purported to be an effective herbal remedy by personnel at a local health food shop and popular literature that cites large amounts of testimonial evidence of its effectiveness. Despite an extensive literature search, no evidence could be found of any scientific research conducted to support these claims.

Therefore, cell proliferation assays using tritiated thymidine, which incorporates into the cells DNA and is used as a measure of the cells' proliferation, were conducted to test the effects of Essiac. In the initial experiments a line of human prostate cancer cells (LNCaP cells) was treated with 5, 10, 15, 20, 25, 35, and 45 micro liters of freshly prepared Essiac. The results of these assays showed that Essiac inhibits the proliferation of the cancer cells in culture. Then a line of non-cancerous transformed cells, Chinese Hamster Ovary (CHO) cells, was treated in a manner identical to the LNCaP cells. The results of these assays also showed that Essiac inhibits the transformed cells in culture. Finally, two assays were conducted on the CHO and LNCaP cells simultaneously using the same batch of Essiac, and adding 2, 4, 6, and 8 micro liters. The results of these assays were similar to the individual assays conducted. Since these results indicate that Essiac inhibits the proliferation of the cancerous LNCaP cells in a reproducible manner, this herbal preparation deserves further study to try to determine which component(s) is affecting the cells' proliferation.