A Scientific Presentation on IMMUNOTHERAPY JULY 31 2004

The CHIJMES Hall Victoria Street Singapore



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A NOVEL APPROACH TO CANCER TREATMENT Mamdooh Ghoneum, Ph.D.

Cancer is one of the leading causes of death in Japan and in the United States, it has been shown that one out of three Americans will have cancer at some time in their lives. It is the number two killer in America, second only to heart disease. Your immune system and the environment are as important as your genes in determining the likelihood that you will get cancer. Alcohol and tobacco will also increase your chances of getting cancer.

But there is hope in this bleak picture. Rice Bran Arabinoxylan Compound also known as Lentin Plus 1000 or BioBran is an important immune modulator that can be used as a possible weapon in cancer prevention and treatment. There are two ways that Lentin Plus 1000 operates to prevent and/or treat cancer. First, Lentin Plus 1000 has been clinically shown to boost natural killer (NK) cell activity, which is the first line of defense against cancer. Second, Lentin Plus 1000 can enhance cancer cell apoptosis, which is programmed cell death.

Lentin Plus 1000 can be absorbed by the body, and when it comes into contact with white blood cells, they strengthen them and give these "body soldiers" more ammunition to fight harmful cells like cancer cells.

How does Lentin Plus 1000 help the immune system fight cancer?

The immune system protects the body from foreign invaders called pathogens. Pathogens basically work as poisons that enter the body and can cause many diseases. In the case of cancer, the NK cells are the ones that specialize in fighting cancer cells. NK cells patrol the body, from the head to the foot, 24 hours a day in search of cancer cells. When they find the cancer cells, the NK cells attach themselves to the cancer cells and inject them with deadly chemicals that kill the cancer cells immediately. Unfortunately, in cancer patients, NK cells do not do their jobs well. There are still the same number of cells, but they have lost the power to kill cancer cells.

The field of immunotherapy emerged in the early 1970s as oncologists sought to find ways to boost the immune system or activate NK cell activity in order to fight cancer cells. However, these oncologists faced two major frustrations. First, many of these biological response modulators (BRMs), such as interferon and interleukin-2, have been shown to be toxic and have severe side effects. Sometimes patients die from kidney failure associated with the toxicity of these treatments, and not from cancer. Lentin Plus 1000 has been shown to be a very safe product without any side effects. In the market, there are about 1,600 products that claim to boost immune function. However, we consider Lentin Plus 1000 to be the most potent immune modulator. The question is why.

I have published research showing that NK cell activity increased 200% in cancer-free but immune-compromised subjects after 1 to 2 weeks treatment with Lentin Plus 1000. A similar study involving cancer patients showed an increase in NK activity, ranging from 145% to 332% in breast cancer patients, 174% to 385% in prostate cancer patients. What makes Lentin Plus 1000 a unique product is that it does not exhibit a cycle-on, cycle off phenomenon. This is called hyporesponsiveness of NK activity, which is the 2nd serious problem associated with many BRMs. It is interesting to note that Lentin Plus 1000 treatment was followed in many patients for 4 years, and NK activity was maintained at a high level with continuation of treatment.

Patient A, a 64 year old female has been diagnosed with lung cancer measuring 6 x 5.5 centimeter. The patient took chemotherapy in conjunction with Lentin Plus 1000. Within one month her tumor shrunk to 4.5 centimeters, despite the fact that lung cancer is very fatal with a normal life expectancy rate of about 6 months.

Patient B is a 59 year old female, with a very lively personality, was diagnosed with breast cancer in 1995. She received surgery which was followed up by 6 months of chemotherapy. After chemotherapy the patient started taking Lentin Plus 1000 and since then her mammograms have shown no abnormality or signs of relapse in a yearly bases. Patient B has since completely returned to her normal daily activities.

Patient C is a 62 year old male that was diagnosed having advanced prostate cancer in 1995. The doctor had given him 3 years to live and recommended for him to take hormonal therapy flutamide and lupron. Patient C soon started taking Lentin Plus 1000 and his prostate cancer marker (PSA) has returned back to normal levels as well as the patient's daily life.

Patient D is a medical doctor who was diagnosed having liver cancer. The patient was given chemotherapy and Lentin Plus 1000 and after 1 year of treatment the patient's cancer was in remission. Soon after he stopped taking Lentin Plus 1000, and returned to a highly stressful daily life, he had a relapse in cancer. It is of interest to note that when he started to retake Lentin Plus 1000, his cancer once again went into remission.

Patient E is a 53 year old woman who was diagnosed with Hodgkins Disease. Her doctor told her she had 3 to 6 months to live. At this time her sister was working with alternative medicine and recommended Lentin Plus 1000 for her. Within 6 months of using Lentin Plus 1000, her cancer started to regress and today she has no signs of Hodgkins disease and she is back to her normal daily life. In a most recent study, I have discovered that cancer cells exposed to Lentin Plus 1000 became sensitive to chemotherapy, and could be killed by a low dosage of chemo. This discovery could help cancer patients requiring higher dosage of chemo to reduce the dosage, thereby minimizing the harmful effects of high does to healthy cells.

Apoptosis

Lentin Plus 1000 also works in a more direct way to kill cancer cells, a process known as apoptosis. Apoptosis, which means programmed cell death, is the device by which aged, damaged and abnormal cells are eliminated from the body. The term apoptosis first emerged in 1972, but the significance of this type of cell death was not recognized until 1980. Recent studies divided the process of apoptosis into 3 different stages: the stimuli that trigger a cell death response, the pathway by which the message is transduced to the cell, and the effectors mechanism that implements the death program. A cell undergoing apoptosis demonstrates a clear morphological and biochemical change. This is followed by the rapid removal of dead cancer cells from most of the tissue within 1-2 hr.

Apoptosis can be triggered in vitro by diverse number of stimuli such as exposure to chemical and physical agents, oxidative stress and removal of growth factors. Many chemotherapeutic drugs function by inducing apoptosis. Research in the last decade revealed a promising future for apoptosis based cancer therapies. However, the chemotherapeutic agents are known to exhibit an indiscriminate killing that involves cancer cells and many normal cells. Therefore, it is of particular interest to find agents that induce apoptosis of cancer cells without or with minimal side effects. We have recently discovered that yeast in the presence of Lentin Plus 1000 induces breast cancer cell apoptosis. This data has been presented at international conferences on cancer research.

In the present study, we demonstrated for the first time that yeast can kill cancer cells. We will show real-life photographs of this amazing process. You will see for yourself how cancer cells come into contact with yeast, how the cancer cells "eat up" the yeast, and how the yeast subsequently kills the cancer cells. This process is enhanced in the presence of Lentin Plus 1000. Cancer cells phagocytosed candida and Lentin Plus 1000 caused over a 3 fold increase in phagocytosis. In addition, Lentin Plus 1000 enhanced the apoptosis of cancer cells induced by candida; the increase was about 2 fold. The data demonstrate the important role of Lentin Plus 1000 in candida induced cancer cell apoptosis and may represent a novel therapeutic strategy for the treatment of breast cancer. This new finding may have therapeutic implications.