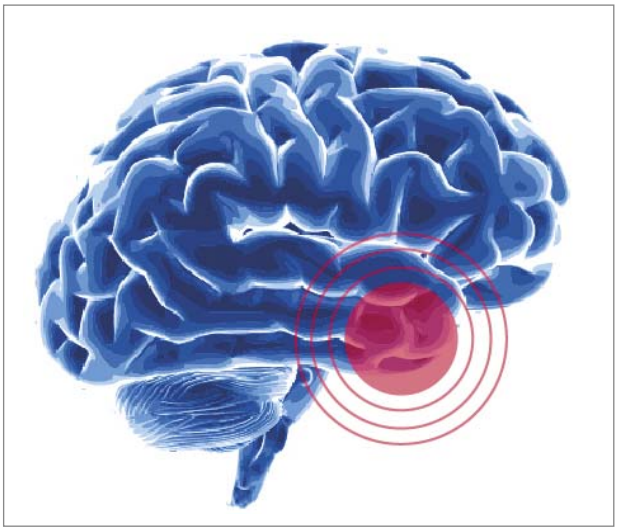
Micronutrients against Brain Tumors

A primary brain tumor is a highly aggressive type of tumor originating from brain tissues. Secondary brain tumors are tumors that spread to the brain from cancers originating in other parts of the body (such as those from melanomas, the lungs, breasts, kidneys or colon). The US estimates 23,380 adults will be diagnosed with primary brain tumors in 2014 and that approximately 14,320 will die from those tumors. European statistics reported 57,132 cases of malignant brain tumors in 2012, according to a statistical report.



Glioblastoma is a common and particularly aggressive form of brain tumors. The average survival time for patients with glioblastoma is little more than a year.

There are several different types of primary brain tumors. However, 45% of all primary brain tumors are gliomas, which arise from a specific type of brain cell known as glial cells. When the tumor cells resemble normal glial cells, the glioma is a benign brain tumor. As the number of abnormal cells increases, the aggressiveness of the cancer also increases. Glioblastoma multiforme is a highly malignant type of glioma. About 1 in 5 of all brain tumors are glioblastomas. While glioblastomas do not typically spread outside of the brain, they grow and spread very rapidly to the surrounding brain tissue. Glioblastoma symptoms vary depending on the pressure exerted on different areas of brain and can cause headaches, nausea and seizures, as well as speech, vision, and personality problems. While it is not a cure, surgery is the usually the first step in the treatment plan for glioblastoma, followed by several rounds of radiation and chemotherapy.

Similar to most other tumors, brain and spinal cord tumors use the same mechanism to metastasize by destroying the surrounding connective tissue by means of two types of enzymes – matrix metalloproteinase (MMP) and urokinase plasminogen activators (uPA). Increased MMP and uPA levels are associated with the most aggressive brain tumors. While cancer cells secrete the collagen digesting MMP enzymes, the surrounding tissue secretes tissue inhibitors of metalloproteinases (TIMPs) as a protective mechanism.

Based on this, we studied the effect of a micronutrient combination (vitamin C, lysine, proline, green tea extract and others) on the activity of MMPs, their tissue inhibitors (TIMPs) and the uPA, using three different types of human glioblastoma cell lines*. Our results showed that the micronutrient combination initially reduced the secretion of MMP enzymes and, and at a higher dose, caused 100% blockage of the MMPs for all three glioblastoma cell lines. The micronutrient combination also inhibited secretion of uPA, at the same time increasing the secretion of the MMP inhibitors (the TIMPs).

With the current available options, conventional medicine only aims to improve the quality of life for patients with glioblastoma. Moreover, those options include only chemo and radiation therapy, with the resulting harsh side effects and limited efficacy. In contrast, we have seen that the micronutrient combination effectively acts on various steps in cancer progression and blocks the aggressive spread of brain tumors, thus providing hope for thousands of people.

*Ref:
MW Roomi et al., International Journal of Oncology 45: 887-894, 2014.

Health Science News Page

This information is provided to you courtesy of the Dr. Rath Research Institute. Led by two former colleagues of two-time Nobel Laureate Linus Pauling († 1994) this Institute has become a leader in the breakthrough of natural health research in the field of cancer, cardiovascular disease and other common diseases. The Institute is a 100% subsidiary of the non-profit Dr. Rath Foundation.

The groundbreaking nature of this research poses a threat to the multi-billion dollar pharmaceutical “business with disease.” It is no surprise that over the years the drug lobby has attacked Dr. Rath and his research team in an attempt to silence this message. To no avail. During this battle, Dr. Rath has become an internationally renowned advocate for natural health saying, “Never in the history of medicine have researchers been so ferociously attacked for their discoveries. It reminds us that health is not given to us voluntarily, but we need to fight for it.”

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