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Cancer and Hydrogen Therapy

Research on Hydrogen Therapy as a potential treatment for cancer has gained interest in recent years. Hydrogen Therapy involves the consumption or inhalation of Molecular Hydrogen (H2) gas or Hydrogen-rich water to promote health benefits.

Several studies have suggested that Hydrogen Therapy may have anti-cancer effects through various mechanisms. One proposed mechanism is its antioxidant properties. Molecular Hydrogen acts as a selective antioxidant, meaning it can neutralise harmful reactive oxygen species (ROS) without affecting beneficial ROS involved in (beneficial) cell signalling. Excessive ROS can damage DNA and contribute to cancer development, so reducing ROS levels through Hydrogen Therapy may help prevent cancer progression.

Furthermore, Hydrogen Therapy has been shown to have anti-inflammatory effects. Chronic inflammation is closely linked to cancer development and progression. By reducing inflammation, Hydrogen Therapy may help inhibit cancer growth and metastasis.

Additionally, some studies suggest that Hydrogen Therapy may enhance the effectiveness of conventional cancer treatments such as chemotherapy and radiotherapy while reducing their side effects. It's believed that Hydrogen may help sensitise cancer cells to these treatments while protecting healthy cells from damage.

Kawamura et al. (2010) investigated the effects of Hydrogen on the metastasis of colon cancer. Their study, published in Anticancer Research, explored whether Hydrogen could potentially inhibit the spread of colon cancer cells to other parts of the body. The results suggested that Hydrogen treatment had a beneficial effect, potentially reducing the metastatic capabilities of colon cancer cells. For patients with colon cancer, this research indicates that Hydrogen Therapy might offer a promising avenue for slowing down or preventing the spread of cancer cells, improving prognosis.

Kawai et al. (2012) conducted research published in Hepatology, focusing on the prevention of nonalcoholic steatohepatitis (NASH) and hepatocarcinogenesis (the development of liver cancer) in mice using Hydrogen-rich water. NASH is a condition characterised by liver inflammation and damage, which can progress to liver cancer. The study found that Hydrogen-rich water was effective in preventing the progression of NASH and subsequent hepatocarcinogenesis (cancer development) in mice. This suggests that Hydrogen Therapy may have potential applications in preventing liver cancer development in patients with NASH or other liver diseases. Given the strong association between NASH and liver cancer, this research could be significant for patients at risk of these conditions.

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LeBaron et al. (2019) explored the broader applications of Hydrogen Therapy in their study published in the Canadian Journal of Physiology and Pharmacology. While this article doesn't directly focus on cancer, it discusses the therapeutic potential of Hydrogen gas in various medical contexts. It highlights Hydrogen's antioxidant and anti-inflammatory properties, which are relevant to cancer patients as oxidative stress and inflammation play significant roles in cancer development and progression. Additionally, the article discusses the potential benefits of Hydrogen Therapy in enhancing overall health and well-being, which could complement conventional cancer treatments and improve patient outcomes.

Two remarkable case studies involving cancer patients with multiple metastases have highlighted the incredible effects of inhaling Hydrogen gas as a therapy. In one case, a patient battling recurrent gallbladder carcinoma underwent daily Hydrogen inhalation therapy. Initially, the tumours continued to progress, but gradually, their size began to decrease, accompanied by a decline in tumour marker levels until they returned to normal. After approximately two and a half months, the patient was able to resume normal life.

In another case, a patient with non-small cell lung cancer received Hydrogen gas inhalation therapy as a standalone treatment after oral and surgical interventions had stabilised the initial lesions. After four months of Hydrogen treatment, the brain metastases reduced in size, and astonishingly, they completely disappeared after one year. Additionally, metastases in the liver and lungs were stabilised after one year, contributing to the patient's extended survival.

These case studies provide compelling evidence that Hydrogen Therapy might exert significant control over tumours, even after conventional cancer treatments have proven ineffective.

In summary, research suggests that Hydrogen Therapy may hold promise as a complementary approach for patients with cancer. From inhibiting metastasis, to preventing cancer development in pre-cancerous conditions, Hydrogen Therapy shows potential benefits for cancer patients. Furthermore, its antioxidant and anti-inflammatory properties could contribute to overall health improvements and potentially enhance the effectiveness of conventional cancer treatments. More research, particularly in human clinical trials, is needed to fully understand the efficacy of Hydrogen Therapy in cancer management (and this will hopefully be demonstrated over the next few years). In the meantime, Hydrogen Therapy offers a safe, easily-accessible adjunct therapy option for individuals with cancer.

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