

Teaching An Old Virus New Tricks - Herpes As A Cancer Killer!

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Replimune®, otherwise known as RP2, is a cancer therapy designed to target many types of cancers, including skin, oesophageal, head, neck, and uveal melanoma (a rare type of eye cancer). Current treatments for these cancers include surgery, chemotherapy, radiation therapy, targeted therapy, immunotherapy, stem cell/ bone marrow transplant, and hormone therapy, though none are 100% effective. Therefore, there is a great need for new treatments.

RP2 is not a typical drug, it is a genetically modified Herpes Simplex Type 1 virus. The virus is used to directly destroy tumors and to generate an anti-tumor immune response. Injections of the modified virus lead to more immune cells in the area of the tumor, including cancer-killing T-cells. Although cancers can cause the immune system to ignore them, the virus reverses this and leads to a strong anti-cancer immune response. For this reason, RP2 joins a group of cancer treatments known as immunotherapies.

Although in [the beginning stages of clinical trials](#), RP2 has been successful. For example, in one study, seven out of thirty patients who received both RP2 and the immunotherapy nivolumab (OPDIVO®) benefited from treatment. Among these patients, six were found to be progression-free at 14 months. Additionally, [one patient in London has been cancer-free for two years and counting after a short course of the drug](#). Though he was out of options until he found RP2, the drug has significantly improved his life.

Despite these positive findings, RP2 has been shown to have some mild side effects. The most common were fever, chills, and fatigue. The symptoms were similar to those of a typical fever/ cold. None of the side effects were severe enough to require medical attention.

Cancer survival has doubled over the last forty years; now, half of the individuals diagnosed will survive the disease. Improved treatment plans for patients are becoming a reality and precision medicine is becoming more common. Advances like Replimune® help us take large strides in the fight against cancer!

Source

<https://www.icr.ac.uk/news-archive/genetically-modified-herpes-virus-delivers-o...>

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