Leukemia T-cell gene therapy shows progress, but not as effective as hoped

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis.

Four years ago, University of Pennsylvania researchers published early but electrifying results. An experimental T-cell therapy eradicated end-stage leukemia in two patients, and put a third in remission.

Soon after that, pharmaceutical giant Novartis partnered with Penn, aiming to commercialize the breakthrough.

Since then, a more modest picture of success has emerged in treating the blood cancer, a type called chronic lymphocytic leukemia that usually strikes in middle age or later.

Of the first 14 CLL patients given the T-cell therapy, four had their cancers disappear – including the first two, who are now about five years cancer-free. Four others got better but then their cancer progressed. And six had no response to the T-cell therapy.

In comparison, Penn's T-cell therapy has been spectacularly effective in more than 50 children and adults with a fast-progressing type of blood cancer called acute lymphoblastic leukemia. Long-lasting, complete remissions have occurred in more than 60 percent of patients.

The method is complex and costly, and often triggers life-threatening complications. It involves genetically engineering each patient's disease-fighting T cells to recognize and attack their cancer cells.

When it works, the therapy also offers the hope of a rarity in terminal-stage cancer: a onetime curative treatment. Stem-cell transplantation, a risky, last-resort treatment that can sometimes be curative, is not a suitable option for most patients with CLL.

Read full, original post: T-cell therapy results more modest than hoped for chronic leukemia