

Experimental treatment saves father of four

Gold Coast father of four, Brendan Parkes is excited about being able to see his children grow up, leave home, and lead their own lives.

Brendan thought he wouldn't live to see the next month, let alone the future years of his kids.

He has been through a lot: first leukaemia, then graft-versus-host disease. Then, after years of treatment, a virus threatened to take Brendan's life again.

"I was constantly sick. I had no quality of life," said Brendan. "I don't know how many times I've been on death's door. It would have been eight, nine times."

Brendan contracted human cytomegalovirus (HCMV), which usually does not affect healthy individuals, but can cause fever, pneumonia, aches, hepatitis, diarrhoea and anaemia in people with compromised immune systems.

He contracted HCMV when he was healthy. The virus lay dormant in Brendan's body for years until he was diagnosed with leukaemia and required a bone marrow transplant.

The problem arose when Brendan's new immune system had not seen the latent HCMV before, and could not fight it. The virus seized the chance to spread throughout Brendan's body, making him extremely ill.

"The virus took over and I was getting sicker and sicker by the day," said Brendan.

Professor Geoff Hill from QIMR treated Brendan with anti-viral medication, but the virus became resistant to every treatment they threw at it.

"Brendan was dying from the virus," said Professor Hill. "The anti-viral drugs weren't working and were only making him more sick. We had no treatments left."

Professor Hill approached Associate Professor Rajiv Khanna, an immunologist colleague who is an expert in HCMV.

Brendan agreed to use an experimental treatment. Researchers from Associate Professor Khanna's team extracted Brendan's immune cells (called T-cells), cultured them in the laboratory and taught them to fight the HCMV infection, and then reinjected them back into Brendan.

"The results were remarkable," said Associate Professor Khanna. "We saw improvement after only a few months."

Brendan has even been able to return to coaching his son's baseball team – a role he dearly loves.

"I couldn't be more thankful," said Brendan. "I just hope that other people can be cured the way that I have."

Clinical trials will begin soon to test the effectiveness of this treatment in other transplant patients.

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