

Drug turns cancer from deadly disease to manageable illness

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Cancer could become a manageable chronic disease like HIV for many patients, according to scientists running a drug trial.

Researchers found that a drug for advanced cancers of the gut and stomach kept a large minority of patients alive and mostly symptom-free for at least ten years after the start of the trial.

Experts said the "remarkable" discovery was a foretaste of a future in which people diagnosed with aggressive tumours that would once have been a death sentence may be able to resume their lives for many years.

Since the turn of the millennium doctors have widely adopted a new class of chemotherapy known as targeted drugs, which attack a particular gene or protein that is known to be essential for the cancer's development.

However, these medicines tend to be costly and usually extend the lives of patients by only a matter of months as the tumours mutate to resist their effects.

Scientists have now uncovered an exception to this rule that may point to a way of breaking the resistance of some cancers for good.

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Case study

Howard Harrison was not supposed to live long enough to meet his grandchildren. He was not even supposed to see the start of 2003.

In 2000 Mr Harrison, 73, a tropical agronomist who shuttled between Britain and

sub-Saharan Africa selling farming equipment, received a diagnosis of a disease of which he had

never heard and still has a hard time pronouncing.

"My wife has to keep correcting me," he said, unfolding a piece of paper in the living room of their cottage in south Oxfordshire. "It's a gastro-intestinal autonomic nerve tumour."

Mr Harrison, left, was told that he had two years to live and his stomach and gall bladder would have to be cut out. A year later the tumour had spread to his oesophagus and liver. His last hope was to enrol in the clinical

trial of a drug called imatinib at the Royal Marsden hospital in Chelsea, four and a half hours' drive from the house in Cornwall where he lived at the time.

The medicine worked. The splinters of tumours are still in Mr Harrison's liver but they are in effect frozen. Mr Harrison can go for long walks with his wife, pick up the grandchildren he would never have known were it not for imatinib and lead the life of a healthy 73-year-old man, save for an extra pill each day.



Clinical Oncology shows that imatinib, one of the first targeted therapies, not only sent some patients with aggressive gastro-intestinal stromal tumours (Gist) into complete remission but kept just over 20 per cent alive throughout the 11-year duration of the trial. About half of these have survived to the present day without their cancer

getting noticeably worse. Gist is a relatively rare disease, with some 700 new cases a year in the UK.

Imatinib, which is now sold under the brand name Glivec, had been designed to treat some kinds of chronic myeloid leukaemia, a blood cancer, but anecdotes about its extraordinary efficacy against Gist soon began to circulate among doctors. Ian Judson, who led the

British arm of the trial at the Institute of Cancer Research (ICR) and the Royal Marsden Hospital in London, said the early results had been unlike anything he had seen in his career. "I remember the sheer excitement of that year," he said. "I will never forget treating those first few patients back in 2000 and seeing the tumour melt away within weeks. Patients who had been unable to eat and in constant pain were suddenly able to live a normal life. It was absolutely astonishing."

Patients with a particular quirk of DNA in a gene called KIT seemed to do especially well. The bad news, according to Professor Judson, is that this means the effect is highly unlikely to benefit anyone outside this sub-group.

Yet the reason scientists see hope in the finding is that it shows it is possible for targeted drugs to turn some of the deadliest cancers into long-term irritations rather than medical duels to the death. "I think that's a realisable ambition for many patients," Professor Judson said.

Winette van der Graaf, professor of personalised oncology at the ICR and a consultant medical oncologist at the Royal Marsden, said: "It was remarkable to see 10 per cent of the patients responding to imatinib for a decade without showing signs that the cancer was becoming resistant to treatment. Imatinib in Gist is still one of the best examples of active targeted agents and we should use these examples to better understand why this happens."

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