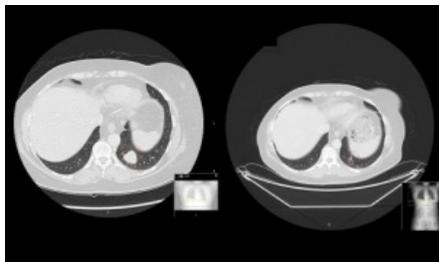


Cancer trial of drug combination yields 'spectacular' results

International trial using ipilimumab and nivolumab to treat patients with advanced melanoma stopped cancer advancing in 58% of cases



Royal Marsden patient Vicky Brown's CT scan before treatment (left) and 12 weeks after initial treatment. Photograph: Royal Marsden

[Josh Halliday](#) and agencies

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Terminally ill cancer patients could be "effectively cured" of the disease using a powerful new combination of drugs described by scientists as heralding a once-in-a-generation advance in treatment.

A British-led trial brought "spectacular" results with more than half of patients with advanced melanoma seeing tumours shrink or brought under control using the drugs.

Prof Roy Herbst, chief of medical oncology at Yale [Cancer](#) Centre in the US, said the treatment, which uses the body's immune system to attack cancerous cells, could potentially replace chemotherapy as the standard cancer treatment within five years.

"I think we are seeing a paradigm shift in the way oncology is being treated," he said. "The potential for long-term survival, effective cure, is definitely there."

In an international trial, 945 patients with advanced melanoma were treated using the drugs ipilimumab and nivolumab. The treatments stopped cancer advancing for nearly a year in 58% of cases, with tumours stable or shrinking for an average of 11.5 months, researchers found.

This was compared with 19% of cases for ipilimumab alone, with tumours stable or shrinking for an average of two and a half months, according to the research published in the *New England Journal of Medicine*.

Dr James Larkin, a consultant at the Royal Marsden hospital and one of the UK's lead investigators, told the BBC: "By giving these drugs together you are effectively taking two brakes off the immune system rather than one, so the immune system is able to recognise tumours it wasn't previously recognising and react to that and destroy them.

"For immunotherapies, we've never seen tumour shrinkage rates over 50% so that's very significant to see. This is a treatment modality that I think is going to have a big future for the treatment of cancer."

Ipilimumab was approved as an advanced melanoma treatment by the UK's health service last year. The drug is given intravenously every three months and costs around £100,000 for a year. Nivolumab is given every two weeks until it stops working.

Dr Alan Worsley, [Cancer](#) Research UK's senior science information officer, said the combination of ipilimumab and nivolumab represented a "a powerful one-two punch" against advanced melanoma.

He added: "Together these drugs could release the brakes on the immune system while blocking cancer's ability to hide from it. But combining these treatments also increases the likelihood of potentially quite severe side-effects. Identifying which patients are most likely to benefit will be key to bringing our best weapons to bear against the disease."

Side-effects can include fatigue, rash and diarrhoea.

Eminent oncologist Prof Karol Sikora, the dean of the University of Buckingham's medical school, cautioned against expectations of "miraculous breakthroughs" from the latest discoveries.

Sikora told the BBC Radio 4 Today programme: "The immune system has been known to affect certain cancers when stimulated for the last 100 years, but we haven't quite got round it yet.

"The current discoveries being released in Chicago, the media pick them up and for cancer patients it's very sad. You would think cancer was being cured tomorrow. It's not the case. We've got a lot to learn.

“The prolongation of survival from these very expensive immune therapies is often a matter of weeks or months and we’ve got to make it long-lasting and that has to be our priority.

“I’m afraid it’s mixed news. There are breakthroughs coming, there is hope for cancer, that we will do much better in the future. It’s slow progress, rather than miraculous breakthroughs, as it’s likely to be reported.”

Case study



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Vicky Brown, who took part in the clinical trials. Photograph: Gareth Everett/Huw Evans Agency

One patient who has benefited from the treatment is former college teacher Vicky Brown, 61, who was told in 2013 she had only months to live after skin cancer spread to her breast and lungs.

She took part in clinical trials at the Royal Marsden hospital last August and within weeks the tumour was eradicated. When it later returned, it was removed with immunotherapy. It has come back a third time but doctors plan to use the same method.

“I started drug therapy in August 2014, and although I experienced quite severe side-effects these were able to be treated so I could stay on the trial,” Brown said.

“One of the lumps disappeared after just a couple of weeks which was remarkable. I was delighted to be given the chance to join this trial, not only for me, but also for all the other melanoma patients who could benefit in the future.”