Targeted cancer treatments outperform traditional drugs

Ray of hope: Traditional treatments failed to halt growth of cancer in the group under study. | Photo Credit: Ridofranz

Cancer treatments that attack tumours based on their individual genetic traits — not their location in the body — far outperform traditional methods, extending survival for twice as many patients, a study said on Saturday.

The precision medicine field of targeted therapy involves testing tumours for clues about their genetic mutations, and matching patients with new drugs designed to block cancer's growth on a molecular level.

Researchers in Texas began studying the impact of these therapies in 2007, after seeing the success of Gleevec (imatinib) — a breakthrough drug approved by U.S. regulators in 2001 that showed huge success against chronic myeloid leukemia.

The results of the first and largest precision medicine trial to look at survival across a host of cancer types and many different targeted therapies were released at the American Society of Clinical Oncology meeting in Chicago, the world's largest annual cancer meeting.

The study, called IMPACT, enrolled 3,743 patients at Texas MD Anderson Cancer Center from 2007 to 2013.

All the patients had advanced cancers, or "end-stage disease," involving cancers of the gastrointestinal tract, breast, or lung. Melanoma and cancer of the female reproductive tract were also included, along with more rare types of cancer.

Those enrolled had typically tried at least four — and sometimes up to 16 — other treatments that failed to halt the growth of their cancer.

Patients who received molecular targeted therapies either got an investigational drug then being tested in a clinical trial, or an FDA-approved targeted therapy commercially approved for another indication.

After three years, 15% of people treated with targeted cancer therapies were alive, compared to 7% in the non-targeted group.

After 10 years, 6% of the targeted group was alive, compared to just 1% in the other group.

On the whole, targeted therapies led to an average of four months of life without the cancer advancing, known as progression-free survival, and nine extra months of overall survival.

Still far from a cure

Those who were treated with traditional approaches lived just under three months without cancer growing, and 7.3 months longer overall.

Researchers say the field has grown immensely since 2007, and that further research will improve the range of therapies available to cancer patients.

"When IMPACT first opened, we tested for no more than one to two genes," said lead investigator

Apostolia Tsimberidou, professor of investigational cancer therapeutics at MD Anderson.

“Now patients are being tested for hundreds of actionable genes, amplifications and mutations, as well as for immune markers,” she added.

“Ideally, in the future, patients’ tumour testing and cell-free DNA analysis will become the standard of care at the time of diagnosis.”

At around 2 a.m. on May 17 morning, a grievously sick Mohammed Salih, a 28-year-old architect from Kerala’s Perambra town, was rushed by his family to

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