New treatment extends lives of people with most common type of liver cancer

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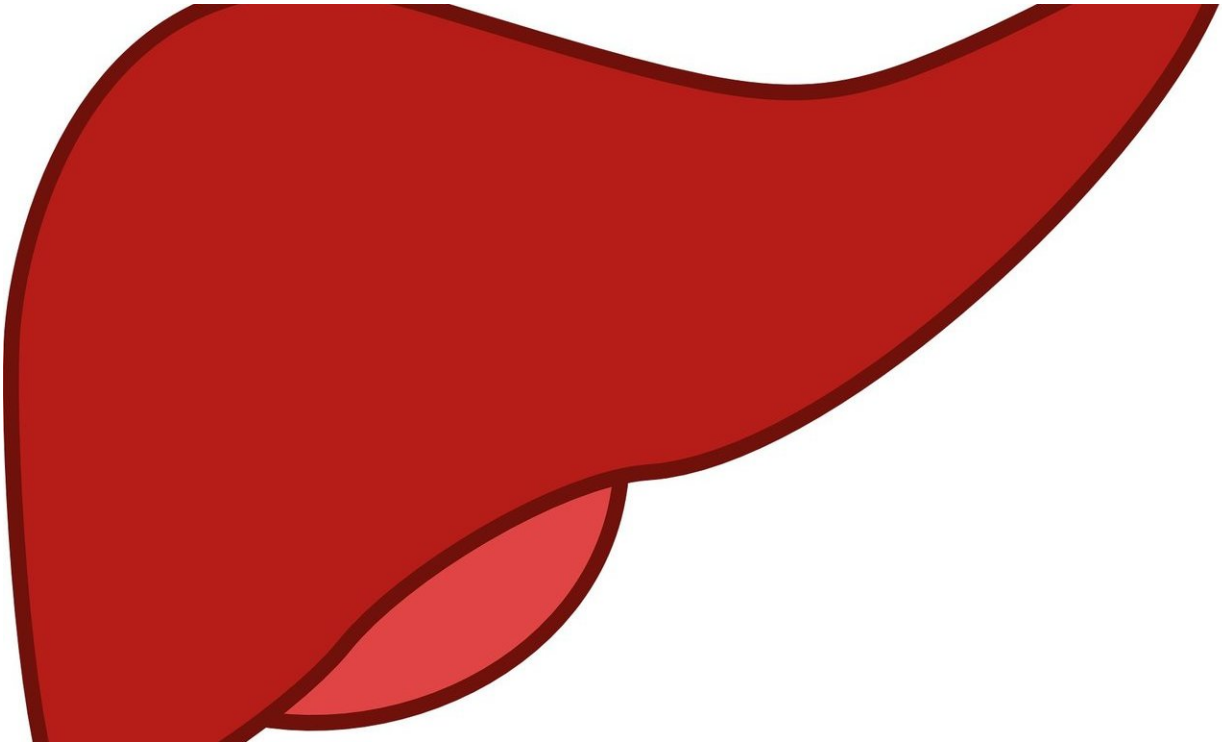

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For the first time in over a decade, scientists have identified a first-line treatment that significantly improves survival for people with hepatocellular carcinoma, the most common type of liver cancer.

Researchers found that the combination of atezolizumab, an

immunotherapy drug that boosts the body's natural defenses, and bevacizumab, an anti-angiogenesis drug that inhibits the growth of tumors' blood vessels, improved overall survival and reduced the risk of death by 42%. It also decreased the risk of the disease worsening by 41%, and the percentage of patients whose cancer shrank or disappeared more than doubled.

Results from the clinical trial were published in the *New England Journal of Medicine*, and the combination is currently being reviewed for approval under the U.S. Food and Drug Administration's Real-Time Oncology Review pilot program.

"The therapy is a real game-changer for people diagnosed with this aggressive disease," said the study's principal investigator and lead author, Dr. Richard S. Finn, a professor of medicine at the David Geffen School of Medicine at UCLA and director of the signal transduction and therapeutics program at the UCLA Jonsson Comprehensive Cancer Center. "We now have a new therapy that not only improves survival for people with the disease, which is very challenging to treat, but that helps them live longer while maintaining a high quality of life."

Currently, people diagnosed with advanced liver cancer have limited treatment options, and the prognosis for survival is poor. Clinical treatment advancements have been few and far between. Until now, no new first-line therapy has been shown to improve survival since the drug sorafenib was approved in 2007.

Both atezolizumab and bevacizumab are monoclonal antibodies—specialized drugs that attach themselves to specific proteins and disable them—and they have already been used alone and in combination with other therapies to treat other cancers.

Atezolizumab targets a protein produced by cancer cells that shuts down

the immune system's infection-fighting T cells, preventing them from attacking the cancer. Bevacizumab interferes with a tumor's blood supply, preventing the cancer from growing and spreading through the body.

"By using these two drugs with different mechanisms of action together, we have increased the number of patients who respond to this treatment and have increased the duration of these responses as compared to the standard treatment, sorafenib," said Finn.

The trial included 501 people, aged 18 and over, from multiple centers worldwide, who had advanced metastatic or unresectable hepatocellular carcinoma. Two-thirds of participants were randomly assigned to receive the atezolizumab and bevacizumab combination, while one-third received sorafenib.

Twelve months after the start of treatment, the rate of survival with the combination was 67.2%, compared with 54.6% for the group on sorafenib.

"Liver cancer is one of the few cancers that is growing in incidence and death rate," Finn said. "That's why it's so important that we now have something in the front-line setting—after more than a decade—that markedly improves survival in this very challenging disease."

According to the American Cancer Society, liver cancer incidence rates have more than tripled, and death rates have more than doubled, since 1980. Some 800,000 people are diagnosed with this cancer each year, and it is a leading cause of cancer deaths worldwide, accounting for more than 700,000 deaths annually.

UCLA Health has a comprehensive liver cancer program with a multidisciplinary team to bring the latest treatments to people with all

stages of liver cancer.

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