

Study suggests adding drug berzosertib to standard treatment for metastatic bladder cancer does not benefit patients

August 26 2021



Credit: Unsplash/CC0 Public Domain

A Phase 2 trial led by City of Hope, a world-renowned research and treatment center for cancer and diabetes, suggests that adding the novel

ataxia telangiectasia and Rad3-related (ATR) inhibitor drug berzosertib to standard-of-care chemotherapy for patients with metastatic urothelial cancer does not extend progression-free survival.

Chemotherapy drugs cisplatin and gemcitabine are typically given to people with cancer cells that line the urethra, bladder, ureters and renal pelvis. Yet, cisplatin-based therapies do not cure these patients, and attempts to combine with novel therapies have failed to extend survival. It was thought that adding the ATR inhibitor drug berzosertib, which disrupts DNA damage repair and induces tumor cell death, could increase the efficacy of current therapies.

"We know that chemotherapy damages DNA. Cancer cells can outsmart this process by repairing DNA damage," said Sumanta "Monty" Pal, M.D., clinical professor in City of Hope's Department of Medical Oncology & Therapeutics Research. "Many experts thought berzosertib could disrupt that system and prevent [cancer cells](#) from repairing their damaged DNA."

"It's important to report trials with a null result," he added. "If we don't do cautionary Phase 2 trials, we may end up investing finances and people's lives in larger Phase 3 clinical trials without seeing any tangible gains in patient survival."

The randomized Phase 2 study, published today in *JAMA Oncology*, included 87 patients across 23 cancer centers affiliated with the National Cancer Institute. The control arm received cisplatin with gemcitabine alone, and the experimental arm received the same treatment plus berzosertib. Patients were followed for up to three years. Median [progression-free survival](#) for both groups was eight months, but inferior overall survival was observed in the experimental group.

An estimated 83,730 people will be diagnosed with bladder cancer and

some 17,200 people will die from the disease this year, according to the American Cancer Society. About 9 out of 10 people with bladder cancer over 55 years old.

"One challenge with berzosertib is that when combined with chemotherapy, it greatly decreases a patient's [white blood cells](#) and platelets," Pal said.

Future efforts should focus on biomarker-based [treatment options](#) that could help identify which patients would benefit most from either monotherapy or rational combinations with less [negative impact](#) on [bone marrow](#).

"The key is to focus on other novel treatments for [bladder cancer](#) in the domain of precision medicine and immunotherapy," Pal said. "It's important to find therapies that improve patient outcomes beyond what we see with cisplatin alone, which is very modest."

More information: "A randomized phase II study comparing cisplatin and gemcitabine with or without berzosertib in patients with advanced urothelial carcinoma," *JAMA Oncology* (2021).

Provided by City of Hope National Medical Center

Citation: Study suggests adding drug berzosertib to standard treatment for metastatic bladder cancer does not benefit patients (2021, August 26) retrieved 10 May 2024 from <https://medicalxpress.com/news/2021-08-adding-drug-berzosertib-standard-treatment.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.