Prostate cancer drugs hold potential for treating COVID-19
1 July 2021, by Ryan O'hare

Fig. 1: TMPRSS2 is an androgen-regulated gene in cells from different tissues. From: The antiandrogen enzalutamide downregulates TMPRSS2 and reduces cellular entry of SARS-CoV-2 in human lung cells

Drugs typically used to treat prostate cancer could be explored for treating patients with COVID-19, following encouraging new findings.

Researchers found that the treatment, a type of testosterone-blocker, also reduced the ability of the SARS-CoV-2 coronavirus to infect lung cells in the lab.

The work, carried out by cancer researchers at Imperial College London and the University of Essex, is part of larger efforts to find existing drugs which can block COVID-19 by reducing the ability of the virus to enter cells.

The team says the study adds to a growing body of evidence from groups around the world, supporting further clinical trials to assess the efficacy of anti-androgens as a potential treatment for COVID-19.

Potential treatment

Professor Charlotte Bevan, from the Department of Surgery & Cancer, said: "This study not only supports further clinical investigation of these prostate cancer drugs but suggests other drugs we can test that could be useful in the COVID-19 effort. As we have learnt from cancer, it is important to have a range of drugs available in the armory. And drugs that are tried-and-tested and approved in other diseases have the advantage that they can..."
"For many years I have been working on the role of androgens in cancer so was able to use this knowledge to investigate if antiandrogens, drugs used for the treatment of prostate cancer, reduce SARS-CoV-2 infection.

"We demonstrated that these drugs reduce the ability of the virus to enter the lungs and, therefore, our data supports clinical trials to investigate if antiandrogens can reduce COVID-19 severity in people infected with the virus."

Two clinical trials assessing anti-androgens in the treatment of COVID-19 are already underway in the United States as well as Sweden, with early findings expected later this year.


Provided by Imperial College London

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