Briefing: Cannabis compounds fight prostate cancer

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Compounds similar to those found in cannabis have been shown to stop prostate cancer cells from multiplying. Two cannabinoid compounds, JWH-015 and MET, stopped prostate tumour growth in human prostate cells in Petri dishes and also in mice with the disease. They halted the cell-division cycle and killed the cancer cells, and had the greatest effect on aggressive prostate cancer cell types, which do not respond to hormone treatments.

Some 192,000 men in the US alone are diagnosed with prostate cancer each year, and researchers Inés Díaz-Laviada Marturet at the University of Alcalá, Spain, and her colleagues say the results could offer hope to those affected. But before you go looking for a dealer, New Scientist answers a few questions.

Does this mean that smoking dope can protect against prostate cancer?

No. The findings do not imply that smoking cannabis can prevent or treat prostate cancer. Even aside from the harm to health that is associated with dope smoking, the cannabinoid compounds that this study tested are synthetic chemicals not found in cannabis plants, so no conclusions about the actual stuff can be drawn.

So if I shouldn't smoke cannabis to fight cancer, how can I use cannabinoids?

The chemicals that have been tested could eventually be used to develop prostate cancer treatments. These treatments would not be the same as cannabis – they would simply contain cannabis-like chemicals as the active ingredients.

Would cannabis-derived drugs make patients feel stoned?

No. No drug developed from these compounds would affect the mind as cannabis use does. There are two types of receptor in the prostate to which cannabinoid compounds can attach. Both types are found in the brain but only one is associated with the psychotropic effects of using cannabis. Díaz-Laviada Marturet's research looked specifically at cannabinoid compounds that attach to the CB₂ receptor – the one not associated with psychotropic effects.

Haven't cannabis chemicals already been found to protect against cancer?

There is a long list of cancers for which cannabinoids are thought to have a therapeutic benefit. This list includes leukaemia, lung and colon cancer.

So when will we see cannabis-derived anti-cancer drugs on the market?

Prostate cancer treatments based on these cannabis chemicals are still a long way from clinical trial. The chemicals tested have been shown to be effective both in cell cultures and in mice, but a lot more needs to be found out about these chemicals before anti-cancer drugs can be developed.
The Prostate Cancer Charity advises a healthy diet and lifestyle and recommends that as the symptoms of prostate cancer and other prostate problems can be similar, it is important to get a proper diagnosis because other treatments are already available.

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