

Men could be spared unnecessary treatment for prostate cancer with new detection method

April 6 2016



Micrograph showing prostatic acinar adenocarcinoma (the most common form of prostate cancer) Credit: Wikipedia, [CC BY-SA 3.0](#)

Researchers are working to find a way to determine how serious prostate cancer is when first diagnosed to avoid unnecessary treatments, which can cause life long side effects and even death.

Very little is known about how [prostate cancer](#) starts and experts from St George's, University of London have developed models which mimic structures found in the prostate to study changes that lead to the progression of prostate cancer.

Dr Ferran Valderrama, of St George's University of London, said:

"The currently available prognostic tests for prostate cancer cannot conclusively tell us whether a tumour will rapidly progress and spread to other tissues or instead will remain confined to the limits of the prostate. As a result, there are a number of men newly diagnosed with prostate cancer that may not receive optimal treatment," he said.

"Improving current procedures for predicting the outcome of a prostate that presents with "suspicious" characteristics of prostate cancer are necessary. If we were able to determine that outcome in a consistent and conclusive manner, it would be easier to define the best approach for treatment for each individual case."

If successful, the experiments in Dr Valderrama's lab would increase the possibilities to intervene at very early times in cases that present features of a more life-threatening tumour.

"We are working towards this strategy and if our experiments continue being successful, we could have in place a new method to more accurately distinguish between high-risk and relatively low-risk disease.", Dr Valderrama said

Researchers in Dr Valderrama's lab have been looking at how cells derived from normal or cancerous prostates organize themselves into structures that look like the ones found in a prostate, known as acini. What they have seen is that, during this process, the more malignant the cells are, the more the acini they form differ from the normal ones and

the more they resemble those observed in prostate cancer.

"Based on these cell culture models, we believe a test could be developed to assess how invasive a prostate cell could become when taken from a patient," Dr Valderrama said.

"We believe that this information would help to determine the appropriate treatment for the patient, reducing the burden derived from unnecessary over treatment and overall having a positive outcome in patient survival."

Prostate cancer is the most common cancer in men and across the UK over 44,000 men are diagnosed with prostate cancer every year – that's more than 120 men every day.

Every hour one man dies from prostate cancer – that's more than 10,500 [men](#) every year.

Provided by St. George's University of London

Citation: Men could be spared unnecessary treatment for prostate cancer with new detection method (2016, April 6) retrieved 19 November 2023 from <https://medicalxpress.com/news/2016-04-men-unnecessary-treatment-prostate-cancer.html>

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