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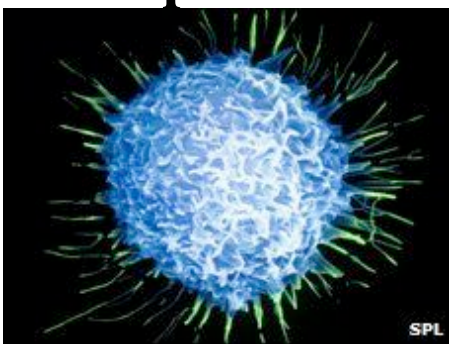
Killer prostate cancer test hope



There are different forms of prostate cancer

Scientists have discovered a protein that predicts survival from prostate cancer at diagnosis.

A University of Liverpool team found the presence of heat shock protein-27 (Hsp-27) was a key marker of how prostate cancer would progress.

Men who tested positive for Hsp-27 at diagnosis were almost twice as likely to die from the disease in the next 15 years than those who did not.

The study features in the British Journal of Cancer.

Aggressive prostate cancer can kill rapidly, and requires immediate treatment.

PROSTATE CANCER SYMPTOMS
Having to rush to the toilet to pass urine
Difficulty in passing urine
Passing urine more often than usual, especially at night
Pain on passing urine
Blood in the urine or semen

However, prostate tumours can also be very slow-growing, and people who develop them often end up dying of unrelated conditions.

It can be difficult to distinguish between the two forms of the disease, and consequently many men end up unnecessarily undergoing intensive treatment which carries a risk of side effects.

The Liverpool team analysed tissue samples taken from 553 men at the time they were diagnosed with prostate cancer.

Their findings suggest testing for Hsp-27 might be a more reliable way of determining whether a tumour is aggressive or not.

Lead researcher Professor Chris Foster said: "Our study shows that this protein marker can give us a reliable and accurate indication of whether individual cancers will become

aggressive.

"Currently, we are working on developing this finding into a blood test to monitor men with prostate cancer in order to determine when their individual disease needs treatment."

Hsp-27 is a key component of signalling pathways that control the movement of cells around the body.

The study also suggests that new drugs could be developed to block these signals and halt the spread of prostate cancer cells.

Important step

Dr Lesley Walker, director of cancer information at the charity Cancer Research UK, said: "These results are an important step towards tackling the long-standing question of how to treat men with prostate cancer once it has been diagnosed.

"The need for treatment varies greatly between patients - men with non-aggressive cancer can live with it for many years without needing therapy, while aggressive cancers require prompt treatment with combinations of surgery, radiotherapy and chemotherapy.

"A marker molecule which identifies aggressive prostate cancer would help us target active treatment to patients who need it - avoiding unnecessary therapy, which can have side effects, to those who don't."

Jon Neate, chief executive of the Prostate Cancer Charity, said much research was underway to try to develop a more accurate diagnostic test.

He said: "It is critically important to develop a test for prostate cancer which is able to distinguish reliably between aggressive and slow growing forms of the disease."

Prostate cancer is the most common cancer in men in the UK, with around 34,000 new cases diagnosed every year.

Around 10,000 men die from the disease each year in the UK.

Several tests are currently used to diagnose prostate cancer, including testing for levels of a protein called prostate-specific antigen (PSA).

A high level of PSA can be a sign of cancer - but average levels tend to rise with age, and so the test can be unreliable.