East Lancashire Prostate Cancer Support Group Newsletter

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"Prostate cancer's penchant for copper may be a fatal flaw"

By Duke Medicine News and Communications

What's Inside

DURHAM, N.C. – Like discriminating thieves, prostate cancer tumors scavenge and hoard copper that is an essential element in the body. But such avarice may be a fatal weakness.

Researchers at Duke Medicine have found a way to kill prostate cancer cells by delivering a trove of copper along with a drug that selectively destroys the diseased cells brimming with the mineral, leaving non-cancer cells healthy.

The combination approach, which uses two drugs already commercially available for other uses, could soon be tested in clinical trials among patients with late-stage disease.

"This proclivity for copper uptake is something we have known could be an Achilles' heel in prostate cancer tumors as well as other cancers," said Donald McDonnell, Ph.D., chairman of the Duke Department of Pharmacology and Cancer Biology and senior author of a study published Oct. 15, 2014, in Cancer Research, a journal of the American Association of Cancer Research.

"Our first efforts were to starve the tumors of copper, but that was unsuccessful. We couldn't deplete copper enough to be effective," McDonnell said. "So we thought if we can't get the level low enough in cancer cells to kill them, how about we boost the copper and then use a drug that requires copper to be effective to attack the tumors. It's the old if-you-can't-beat-'em-join-'em approach."

McDonnell and colleagues searched libraries of thousands of approved therapies to identify those that rely on copper to achieve their results. Among those they found was disulfiram, a drug approved by the FDA to treat alcoholism. Disulfiram had at one time been a candidate for treating prostate cancer – it homes in on the additional copper in prostate cancer tumors – but it showed disappointing results in clinical trials among patients with advanced disease.

The Duke team found that the amount of copper cancer cells naturally hoard is not enough to make the cells sensitive to the drug. But when the Duke researchers added a copper supplement along with the disulfiram, the combination resulted in dramatic reductions in prostate tumor growth among animal models with advanced disease.

And there was another surprise: Androgens, the male hormones that fuel prostate cancer, increase the copper accumulation in the cancer cells. McDonnell said this finding could make the combination of disulfiram or similar compounds and copper especially beneficial for men who have been on hormone therapies that have failed to slow tumor growth.

"Unfortunately, hormone therapies do not cure prostate cancer, and most patients experience relapse of their disease to a hormone-refractory or castration-resistant state," McDonnell said. "Although tremendous progress has been made in treating prostate cancer, there is clearly a need for different approaches, and our findings provide an exciting new avenue to explore."

McDonnell said clinical trials of the combination therapy are planned in upcoming months.

Andrew Armstrong, M.D., associate professor of medicine, was involved with a recent study at Duke testing disulfiram in men with advanced prostate cancer.

"While we did not observe significant clinical activity with disulfiram in men with recurrent prostate cancer in our recent clinical trial, this new data suggests a potential way forward and a reason why this trial did not have more positive results," Armstrong said. "Further clinical studies are now warranted to understand the optimal setting for combining copper with disulfiram or similar compounds in men with progressive prostate cancer, particularly in settings where the androgen receptor is active."

In addition to McDonnell, study authors include Rachid Safi, Erik R. Nelson, Satish K. Chitneni, Katharine J. Franz, Daniel J. George and Michael R. Zalutsky.

The National Institutes of Health funded the study (CA139818, CA42324, RO1GM084176).

Prostate cancer sufferer: 'It's either buy the drugs, or die'

By Ruth Wood

7:00AM BST 13 Oct 2014

Prostate cancer patient Peter Smith is caught in a cruel catch 22. He has responded "astonishingly well" to a new cancer drug that could prolong his life by as much as 18 months, according to his consultant. But because the NHS will not pay for him to have it, he is buying the pills himself direct from the manufacturer, at a cost so far of £15,000.

Mr Smith's modest life savings are almost used up, and he is desperate. He had hoped that if he could prove the drug was working, the state would step in and pick up the bill before he went bankrupt. Instead, he's been told that self-funding has probably only hardened the case against him, because the NHS disapproves of the advantage it gives better-off patients.

"I feel like I'm trapped in an Orwellian nightmare," says the grandfather-of-one from Teesside. "I've barely cost the NHS a penny in 75 years. I'm a non-smoking fitness fanatic, and, until I was diagnosed with prostate cancer 10 years ago, I'd never even been in a hospital, except to visit people. Now, at the very moment I need the NHS, it's not there for me."

Mr Smith's battle centres on enzalutamide, a new hormone treatment that blocks the action of androgens (male hormones such as testosterone) that stimulate prostate cancer cells. Licensed last year, it can extend life by between five and 18 months in men with advanced prostate cancer.

Initially, prescriptions for enzalutamide were paid for by the Cancer Drugs Fund, the Government's £280 million-a-year pot for cancer drugs that are not routinely available on the NHS. Then, a year ago, the National Institute for Health and Care Excellence (Nice) approved the drug for all men whose prostate cancer had spread and who were no longer responding to other hormone therapy, or to chemotherapy.

Patients rejoiced – but not for long. In February, Nice issued an update saying that the NHS should not fund enzalutamide for patients who had previously tried another new drug called abiraterone, because there was insufficient evidence it was effective in this group.

Overnight, the recommendation stripped Mr Smith and thousands of other men across England of a lifeline because they had taken abiraterone. Following an outcry from cancer charities such as Tackle and Prostate Cancer UK, Nice performed a U-turn in May, removing the restriction. But, in its final guidance published in July, it merely said there was not enough evidence to make a recommendation either way.

NHS England and NHS Wales have responded by ruling out enzalutamide for men who have previously taken abiraterone, and vice versa. Only men found to be intolerant to one of these drugs within three months are permitted to try the alternative. The health service in Northern Ireland is likely to follow suit, while men in Scotland can have the drug without restriction.

Even the Cancer Drugs Fund is limiting patients to trying just one of the drugs.

"It's outrageous," says Mr Smith, who still works part-time as an associate lecturer for the Open University. "The cancer hasn't spread to my bones and I feel super-fit. Until recently, I was still playing squash twice a week.

"My consultant says I've responded astonishingly well to enzalutamide. The NHS should be delighted that it's keeping me on my feet, contributing to society as a taxpayer, not languishing on a hospital ward.

"Instead, it's financially crippling me by forcing me to pay £3,000 a month for a drug that others don't pay a penny for."

The NHS can buy enzalutamide at a discounted price, but Mr Smith has paid the retail price for the drug since June.

His voice cracks with emotion when asked how far he would go to self-fund the drug. "Well, I have a house," he says. But understandably, he is reluctant to sell the semi he has shared with his wife Helen for 45 years, which she will need when he is gone.

Mr Smith was diagnosed with prostate cancer, the most common type in men, in 2004 at the age of 65. Brachytherapy, a type of radiation treatment, was unsuccessful. Surgery or cryotherapy – freezing the cancer cells – was ruled out after a biopsy showed the cancer had spread to his pelvis.

Since then, his only hope has been to control the disease rather than attempt to cure it, and Mr Smith has tried a succession of hormonal treatments, each of which has worked for a while before failing, as is the norm.

"Cancer is like water," he said. "You can hold it back for so long, but eventually it finds a way through."

In early 2013, he was prescribed abiraterone, another new hormone therapy, which worked well initially, but after six months the cancerous cells were on the rise again. In June, he was told enzalutamide was his last hope – but he wouldn't get it on the NHS. His only option was to pay for the drugs himself.

The main yardstick for measuring the success of prostate cancer drugs is their impact on blood levels of prostate specific antigen (PSA), a protein produced by the prostate gland. When he was first diagnosed, Mr Smith's PSA was 16 nanograms per millilitre (ng/ml), slightly above average. By June this year, it had risen to an all-time high of 771 and was rising dangerously fast. But, within five months of taking enzalutamide, it has plummeted to 100 – the biggest improvement he's ever had from treatment.

Armed with these results, he appealed unsuccessfully via his consultant to both the Cancer Drugs Fund and his local Care Commissioning Group for NHS funding.

He even had a letter to his MP from Sir Andrew Dillon, the CEO of Nice, intimating that he may have a case, "especially as Mr Smith has responded well to enzalutamide". But neither the letter nor his PSA results were accepted as evidence. In fact, his appeal was screened out before it even reached his regional Cancer Drugs Fund panel.

Though it wasn't given as a reason for rejection, Mr Smith has also been told by two consultants that the NHS looks unfavourably on patients who go outside the system to buy treatment and then ask the NHS to take over funding, as it creates a two-tier system. "But I had no choice," said Mr Smith. "It was either buy the drugs myself or die."

A spokesman for NHS England, which controls the Cancer Drugs Fund, said: "We look at applications to the fund on a case-by-case basis, based on clinical need. And that's the only consideration.

"Doctors and specialists have reviewed enzalutamide and found that there is not enough evidence to prove that it can be effective for patients who have previously received abiraterone. Although both drugs are effective when used separately, that does not mean that they will be effective when used one after the other – the benefit to patients of sequential use of these drugs needs to be better understood."

At the root of the controversy is a selection of small, observational studies by Astellas, the manufacturer of enzalutamide. In these, between 10 and 46 per cent of patients who had previously taken abiraterone had a decline in PSA of at least 50 per cent after taking enzalutamide. Nice concluded these studies were too small to give any meaningful insight. But NHS England interpreted them to mean that post-abiraterone enzalutamide was not clinically or cost-effective.

Sandy Tyndale-Biscoe, chairman of the prostate cancer charity Tackle, says the NHS should at least allow all patients to try enzalutamide for a couple of months to see if they respond well to it. "It should be a clinical decision, not a political decision," he says.

Consultant oncologist Prof Nick James, director of the cancer research unit at the University of Warwick, said he could see both sides of the argument.

"Although there is a lack of formal trial data, what we are hearing is that enzalutamide only works for about 20 per cent of people who have tried abiraterone. That means that in four out of five cases, the NHS would be wasting its money. But if you are one of the 20 per cent, you obviously want the drug.

"The other issue for the NHS is that if you self-fund a drug and have a good response, it gives you an advantage over people who can't afford to buy it. It sets a precedent.

"That said, I have huge sympathy for Mr Smith. These drugs do enable people to stay at home having a fairly good quality of life until the end. The drugs are expensive but there are big savings for the health service in preventing patients coming into hospital for palliative treatment as they used to 10 years ago. I don't think that has been taken into account."

Meanwhile, time ticks on for Mr Smith, his wife, their three children and granddaughter. "I despair of the inflexibility of the decision-making process," says Mrs Smith. "Especially when there are lives at stake."

The Telegraph

From Left to Right Hazel Goulding (Treasurer) Leon D Wright (IT Admin) Stuart Marshall (Secretary) Steve Laird (Vice Chairman) Dave Riley (Chairman)

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We are a group of local people who know about prostate cancer. We are a friendly organisation dedicated to offering support to men who have had or who are experiencing the effects of this potentially life threatening disease.

The East Lanc's Prostate Cancer Support Group offers a place for free exchange of information and help for local men and their supporters (family and friends) who may be affected by this increasingly common form of male cancer.

At each meeting we strive to be a happy, supportive and upbeat group of people; encouraging open discussion on what can be a very difficult and perhaps for some an embarrassing subject. We have lively, informative, interactive, sharing and above all supportive meetings.

Nelson FC Prostate Cancer Awareness Day 27th September 2014

Thanks again for your help and support on Saturday. I have received thanks from the club and also had a very positive response to photos of our stand from PCUK.
We raised £74 from the sale of pin badges and the bucket collection.
Cheers John

Sponsors

Deborah Dobson Presents

East Lancashire Hospitals NHS
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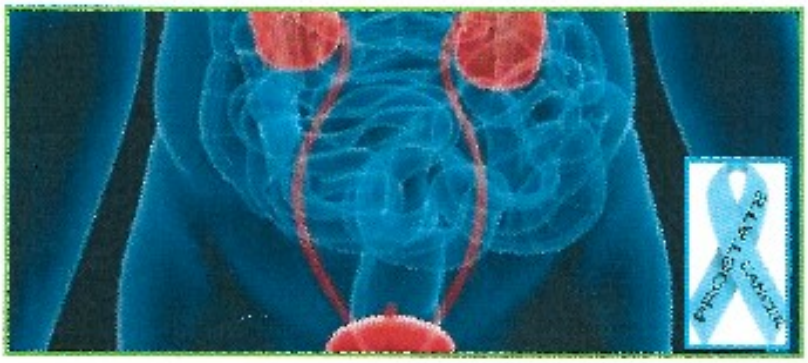
Member Event on
Urological Cancers
Focusing on Prostate Cancer



Friday 24 October, 2.00pm, Royal Blackburn Hospital
Friday 21 November 2.00pm, Burnley General Hospital

To reserve your place,
please call: 01254 733521 or
Email: membership@elht.nhs.uk

Safe Personal Effective

“£500 Donation Boosts Support Group Funds”

Thanks to the East Lancashire Freemasons

'Dear Stuart,

Having known and indeed still know several friends who have been affected by this terrible disease, it is a comfort to know that there are groups such as yours who are there to offer support.

Please find enclosed cheque for monies raised by East Lancashire Freemasons, of whom I am one, which I hope will enable you to continue to provide this excellent service.

Yours sincerely,Steve Irving

For and on Behalf of

Elizabethan Lodge of Mark Master Masons No 1174

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16/10/14

Dear All,

On behalf of the East Lancashire Prostate Cancer Support Group and members I would like to thank you all most sincerely for your very kind and generous £500 donation.

All donations mean a lot to us as we are not a fund raising organisation, all our helpers/ members are volunteers and like all organisations of this nature we rely on our monthly raffle at meetings and donations for funding our meetings, promotional equipment printing, stationary etc.,

We have been very fortunate since we formed the group at the end of 2010 thanks to Burnley Gen Hospital allowing us the use of their Mackenzie Conference Centre for meetings free of charge. We average just over 30 people attending meetings, majority being men of course, although ladies do also attend and help, not to mention two Urology nurses from our local hospitals. It has been brought to our attention on a few occasions during the last 12 months that the building we use is due to be demolished, therefore we are having to think ahead with regards to finances should it eventually happen and your kind donation would be of great help in that circumstance as well as helping towards on-going expenses.

Please feel free to attend any of our meetings, particularly anyone who is suffering from any effects of Prostate Cancer or are interested in knowing more about it. Our meetings are on the first Thursday of every month, 2-4pm., you can also find out all about us and about the disease on our comprehensive website: www.elpcsg.com where our brochure can also be downloaded. Our group Tel No is: 07548033930

Once again many, many thanks for your very kind thought and your donation.

Stuart L. Marshall (Secretary)
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