Cancer trial shows treating the prostate with radiotherapy improves survival

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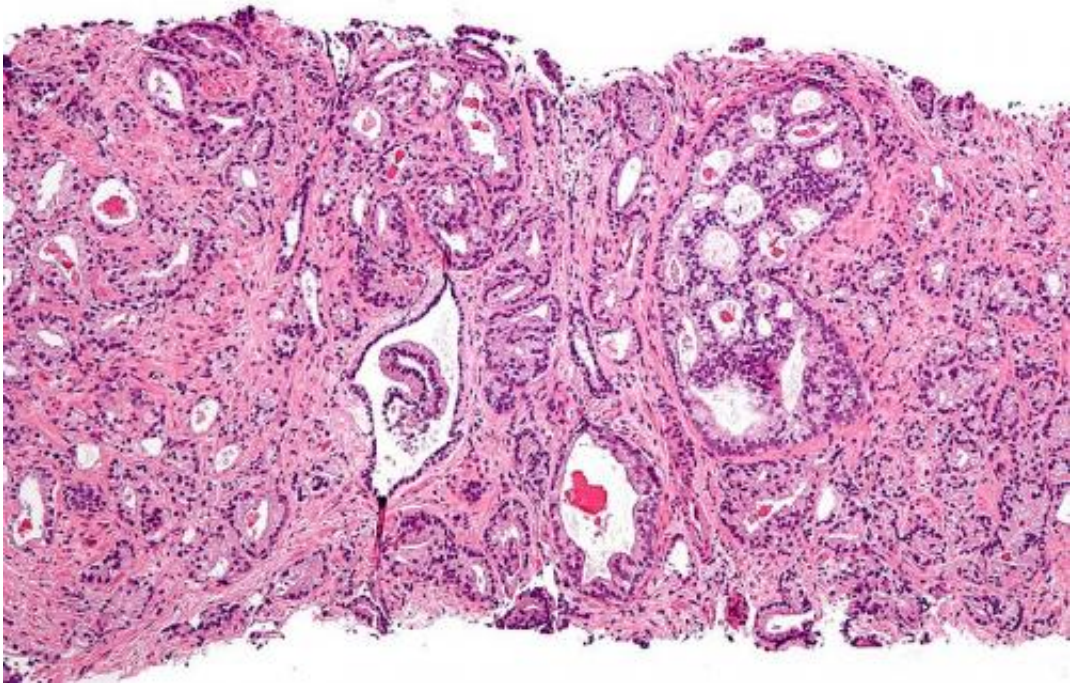

Micrograph showing prostatic acinar adenocarcinoma (the most common form of prostate cancer) Credit: Wikipedia, CC BY-SA 3.0

Treating the prostate with radiotherapy alongside standard treatment led to an 11 per cent increase in survival for some men with advanced prostate cancer, show the results from a study carried out in collaboration with the University of Birmingham and funded by Cancer Research UK.

These findings, from one of the largest ever clinical trials for the disease, are being presented at the 2018 ESMO Annual Meeting in Munich, Germany and published in *The Lancet*, today.

Previously, it was unclear if there was any benefit treating the prostate directly with radiotherapy, if the cancer had already spread. This research helps answer that question and has implications beyond prostate cancer.

The findings from the STAMPEDE trial could be practice changing and suggest radiotherapy, alongside hormone therapy, should become the standard of care for a group of men with advanced prostate cancer, affecting thousands every year in the UK.

This part of the STAMPEDE study, based at the MRC Clinical Trials Unit at University College London, involved around 2,000 men who had advanced disease. Half were given standard treatment while the other half received standard treatment and radiotherapy to the prostate – the site of the primary tumour.

They found among men whose cancer had spread to their lymph nodes and/or nearby bones and were treated with additional radiotherapy, around 80 per cent survived for at least 3 years. In comparison, 70 per cent of men who did not have the additional radiotherapy treatment, were alive after 3 years. The benefit was unique to this group of men, with no increase in survival among men whose cancer had spread further to other organs or distant bones.

Around 47,000 men are diagnosed with prostate cancer every year in the UK, and over 11,500 men die from the disease.

In this study, 40 per cent of men with newly diagnosed advanced prostate cancer were in the group with disease that had spread to their

lymph nodes and/or nearby bones, suggesting the findings could potentially benefit more than 3,000 men every year in England alone, and many thousands more worldwide.

Dr. Chris Parker, lead researcher of the study based at The Royal Marsden, said: "Our results show a powerful effect for certain men with advanced prostate cancer. These findings could and should change standard of care worldwide.

"Until now, it was thought that there was no point in treating the prostate itself if the cancer had already spread because it would be like shutting the stable door after the horse has bolted. However, this study proves the benefit of prostate radiotherapy for these men. Unlike many new drugs for cancer, radiotherapy is a simple, relatively cheap treatment that is readily available in most parts of the world."

Professor Nicholas James, chief investigator of the Cancer Research UK-funded STAMPEDE trial from the University of Birmingham, said: "Although survival times are improving, no one with advanced prostate cancer is cured of their disease by hormone therapy alone. These important results move the dial significantly further in terms of what we can do for this large group of men. These results should change the standard of care for certain men with advanced prostate cancer – and could be implemented tomorrow."

Kevin Webber, age 53, although not part of the trial, received radiotherapy to the prostate as part of his treatment for advanced prostate cancer at The Royal Marsden. He said: "I discovered I had prostate cancer in November 2014 and was given a prognosis of as little as two years. My tumour had spread to lymph glands in my abdomen and chest, so I didn't think radiotherapy was an option for me until Dr. Chris Parker raised the possibility of it.

"Now, nearly four years on from my diagnosis, I'm still incurable—but have been and currently remain fit enough to have just completed my sixth multi day ultra-marathon of 2018. Groundbreaking studies like STAMPEDE give patients hope, and that's priceless when you have advanced cancer."

Professor Charles Swanton, Cancer Research UK's chief clinician, said: "This is a monumental finding that could help thousands of men worldwide. STAMPEDE is making great strides in finding new ways to treat prostate cancer with previous results from the trial already changing clinical practice – data released previously has led to docetaxel chemotherapy now being part of the standard of care for many men with prostate cancer.

"Adding radiotherapy to current treatment shows clear benefit for this subgroup of men with prostate cancer. We now need to investigate whether this could also work for other types of cancer. If we can understand exactly why these men benefit from the additional radiotherapy treatment, we could hopefully use this approach to benefit even more patients."

Professor Mahesh Parmar, director of the MRC Clinical Trials Unit where STAMPEDE is based, said: "STAMPEDE is changing the face of prostate cancer research because the scale and adaptive nature of the study mean that a number of different treatment options can be investigated rapidly and in parallel and new treatments to be tested can be added. This is enabling scientists to get results much more quickly than they usually would. More data will come out in subsequent years, because of the innovative design of the trial. This shows us the importance of investing in more adaptive trials like STAMPEDE to help us make similar progress in the treatment of other cancers such as breast and lung."

More information: Christopher C Parker et al. Radiotherapy to the primary tumour for newly diagnosed, metastatic prostate cancer (STAMPEDE): a randomised controlled phase 3 trial, *The Lancet* (2018). DOI: 10.1016/S0140-6736(18)32486-3