Read all about it... It can be awkward when a patient asks you about a report in their favourite tabloid detailing an amazing research breakthrough or a 'cutting-edge' new treatment / test and you don't know what they are talking about! So this section fills you in on the facts.

'The £10 Prostate Cancer Test: new prostate cancer check is twice as accurate, with no need for that embarrassing examination'

Published in the Daily Mail, 5 March 2014

The article gives the impression that in the next year prostate specific antigen (PSA) blood tests and digital rectal examination (DRE) can be replaced by a simple urine test available at your GP practice. The story relates to a press release from Randox Laboratories Ltd who have purchased a licence from researchers at the University of Surrey to use their technology for an immunoassay to detect Engrailed-2 (EN2) transcription factor in urine as a biomarker for prostate cancer. A PubMed search shows that this biomarker has been an area of research for the last few years. The largest clinical trial published to date was 184 men and the positive predictive value of EN2 was shown to be 66%. In a separate series of 125 men undergoing radical prostatectomy, EN2 was shown to closely correlate with tumour grade and volume, but was still falsely negative in 30%.

The article points out that PSA, as a test for prostate cancer, is "wrong more often that it is right". However, PSA is a screening tool – not a test for prostate cancer and has to be used in conjunction with history, examination and a family history. Of course, around 30% of men having a transrectal ultrasound (TRUS) biopsy will be found to have disease, but this is not the same as 'twice as accurate'.

Nevertheless, these areas of research into tests such as PCA3 and EN2 and kallikrien proteins show great promise for becoming diagnostic and screening tools in the future. In theory, a test such as EN2 might be useful following a TRUS biopsy if there is a suspicion of under-sampling and reassurance is required before embarking on active surveillance or possibly it could be used in cases of a negative biopsy where a high index of suspicion remains. Clearly though, several years of research are required yet to identify if this would indeed be reasonable.

'They help you see in the dark – now carrots can reduce the risk of prostate cancer'

Published in the Daily Mail, 26 March 2014

To finish on a somewhat lighter note, I am sure you will be frequently asked by patients if there is anything they should or should not be eating. This Daily Mail story referenced a meta-analysis by a Chinese team, looking at 10 papers linking diet and cancer risk. Only two of the papers had significant numbers of patients with the rest being just a few hundred. Six of the papers did not correct for body mass index (BMI) and other confounding factors. The analysis showed decreased rates of prostate cancer in people eating 10g of carrots per day or more. The idea that beta-carotenes from carrots can reduce prostate cancer risk has been around for a while. A paper due to be published in the International Journal of Cancer in July shows no positive effect in 18 years of follow-up in patients taking beta-carotene supplements. The take home advice for patients should therefore be that a balanced diet is good for you. A balanced diet should include vegetables, e.g. carrots.

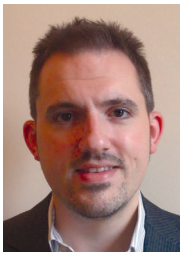
'Prostate cancer cure with NO side-effects could be available on the NHS in just two years'

Published in the Daily Express, 25 March 2014

This article gives the impression that new 'dose painting' radiotherapy for prostate cancer can cure the disease with no side-effects. The story is referencing trials of intensity-modulated radiotherapy (IMRT) – known more colloquially as 'dose painting' – which have been ongoing for several years at The Royal Marsden and The Clatterbridge Cancer Centre.

IMRT is hypofractionated radiotherapy with intra-prostatic 'boosts' to tumour nodules. It is intended for organ-confined intermediate and high-risk disease. Essentially, it involves targeting extra dose to the site of tumour (as dictated by a planning MRI) whilst still providing a background dose to the remainder of the prostate. Fewer fractions / treatments are required and fewer side-effects are predicted. Both UK centres are currently running phase II trials so there is no long-term outcome data as yet. There are multiple publications from America which confirm low rates of early toxicity with prostate IMRT, but we will have to wait for longer term oncological outcome data in the UK to see if this is to become a mainstay of treatment.

One trial patient was interviewed for the newspaper article, he was very pleased with the outcome and had not suffered any side-effects – giving rise to the headline. It is unclear where the "two year" timeframe came from.



SECTION EDITOR

Jordan Durrant,

Jordan Durrant, ST6 Urology Specialist Registrar, Addenbrooke's Hospital, Cambridge.

E: jordandurrant@gmail.com