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.

Relief at last! Men suffering from a common prostate condition are set to benefit from a pioneering new implant

The Mail on Sunday – 17 December 2016

I haven't been asked about this one by a patient just yet, but I suspect it is only a matter of time. Just when you think every possible way of managing obstructive BPH has been devised, something new is developed! This story details a new implant which is being trialled at UCL and Frimley Park Hospitals. Patients are also being treated with the implant at The London Clinic by Professor Prokar Dasgupta.

The manufacturer of the implant describes it as a 'temporarily implanted nitinol device'. The device itself looks like a cross between a stone basket and tri-radiate forceps, but scaled up to be the length of the prostatic urethra. There are three external nitinol arms to the device; one at 12 o'clock rests in the anterior commissure of the prostatic urethra once the device is deployed. The second and third arms are at 5 and 7 o'clock and exert pressure on the lateral lobes of the prostate. A central 'tongue' of nitinol wire prevents the device becoming displaced into the bladder. Unlike other recently developed prostatic implants, this device is not permanent. The manufacturer recommends the device is deployed with either a flexible or rigid cystoscope and then is left in situ for five days. During this time, the pressure effect of the device causes necrosis of the prostate, such that when the implant is removed under a local anaesthetic – the functional lumen of prostatic urethra is increased as the sloughed tissue comes away.

My presumption would be that this device is intended for the very elderly and infirm patient who could not tolerate an anaesthetic, but clearly the benefits and side-effects for this device are not yet known.

SHOCK BREAKTHROUGH: Scientists STUN world by developing space-age cure for prostate cancer

The Daily Express – 20 December 2016

This story stems from the publication of the results of a phase III clinical trial in *Lancet Oncology*. The trial was comparing padeliporfin vascular-targeted photodynamic therapy (VTP) against active surveillance (the standard of treatment) for managing low-risk prostate cancer.

If you have never heard of 'padeliporfin', you would be in superb company. I wasn't entirely sure, so I checked with my good colleague, 'Dr Wikipedia', who explained to me that padeliporfin is a bacterial pheophorbide with a palladium substitution. He went on to further explain that a pheophorbide is product of chlorophyll breakdown (marine bacterial chlorophyll in this case), which means that these molecules (laced with radioactive palladium) are light sensitive.

The padeliporfin is water soluble, which means it can be injected intravenously, light is then delivered directly to areas of concern seen on prostate MRI, in order to activate the drug and cause release of the radiation that treats the tumour. The light is delivered via fibre-optic fibre (just like standard lasering) that is passed trans-perineal (much like taking biopsies) for a total of 22 minutes.

The phase III trial was a randomised controlled trial (RCT) carried out across 47 European University hospitals. Four hundred and thirteen men with Gleason pattern three prostate cancer were randomised 1:1 to either active surveillance or VTP. Disease progression in the surveillance group at 24 months was 58% (one of the highest figures I have ever seen for this) and was 28% in the VTP group. More encouragingly, at 24 months, 14% of men in the surveillance group had negative prostate biopsies, compared with 49% of men in the VTP group. Side-effects were relatively mild, with the most common serious adverse effect being retention of urine in 7% of patients. The technology is certainly very interesting, but this is clearly still a long way from being a proven treatment. The concept of a minimally invasive treatment given as an adjunct to active surveillance is certainly very appealing though.

Scientists discover boost for men who get no help from Viagra... in new daily incontinence pill

The Mail on Sunday – 31 December 2016

The 'incontinence pill' in question is mirabegron. This story has been bubbling under for some time though. Back in May 2016, a research team from Tulane University in New Orleans published in the *BJUI* regarding this potential 'boost' from mirabegron.

The New Orleans team showed that injected mirabegron (a ß3 adrenoreceptor agonist) could induce relaxation of cavernosal smooth muscle in phenylephrine reduced contraction. This initial work was carried out in vivo, with rats. The result is fairly logical, given that we know that ß-blockers can induce erectile dysfunction and we have known since 2003 that there are ß3 receptors in cavernosal smooth muscle. The manufacturer of mirabegron is now funding a clinical trial which is underway at Johns Hopkins' in Maryland; the start of this clinical trial is, I suspect, the source of this news story. The trial will be recruiting up until December 2017 though, so I suspect a verdict on whether we will be prescribing this drug for ED is still some way off.

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