Turn the tap off, it's Dry July!

By Kalli Spencer

Dry July is a fundraising campaign that encourages you to go alcohol-free in July to raise funds for people affected by cancer. These funds provide invaluable services for cancer patients, their families and carers – whether it's a lift to a life-saving appointment, guidance from a specialist nurse, connection to an informative voice, access to therapy programs or a bed close to treatment[1]. In the context of this blog those affected by incontinence can seek treatment and thereby become dry. Lifestyle modification in terms of modifying the amount and type of fluid (such as alcohol and caffeine drinks) can help to improve continence and is one of the first steps of treatment. This blog will unpack the various treatments available for those who have developed incontinence after a radical prostatectomy (surgery to remove the prostate).

In medicine we often speak of prevention over cure. Professor Manish Patel at the University of Sydney found physiotherapist guided-pelvic floor muscle therapy (PG-PFMT) commenced 4 weeks before surgery may have a beneficial effect in reducing the duration and severity of incontinence[2]. Six weeks after prostatectomy, the intervention was associated with a lower degree of incontinence, with a significantly shorter duration to one and zero pad usage[2]. A meta-analysis which pools the results of several studies showed there is a 36% reduction of incontinence risk at 3 months after surgery if preoperative PFMT was performed[3]. Best outcome is achieved by physiotherapists who specialise in the male pelvic floor and by learning it prior to surgery one is adequately prepared for the regime after surgery once the urinary catheter is removed. Referring back to last week's blog it was mentioned that continence is maintained mostly by the external urethral sphincter (underneath the prostate), but also with some assistance by the adjacent pelvic floor muscles. After surgery, with the prostate removed, the residual urethra pulled up to connect to the bladder and possible injury to the external sphincter, there is a gap where the prostate once was, with the result that the sphincter may not close properly and urine leaks out. Therefore the surrounding pelvic floor muscles need to take over and compensate for tissues removed during surgery and the patient needs to learn how to incorporate pelvic floor muscle activation into functional tasks. An example of a programme may include three sets of PFM exercises per day, with 10 contractions per set. Specific exercise instructions are tailored according to the individual's needs.

If incontinence is not improving and the flow study suggests features of obstruction, a camera check (cystoscopy) into the urethra and bladder may need to be undertaken, to look for an obstruction caused by scarring from the initial surgery, or from prior radiation. This can be treated simultaneously by dilation of the urethra or by cutting through the scar tissue. Sometimes steroids may be injected into the scar.

As previously mentioned most incontinence resolves on its own with the help of PFMT by 12 months. It may be a gradual reduction in the amount that leaks until it stops. There are some aids to help with leakage of urine in the interim such as wearing specialised incontinence pads, condom catheters which fit over the head of the penis (negatives are: the condom can fall off and urine can irritate the skin long term) and penile clamps (which are released when

one wants to urinate).

If incontinence persists beyond 12 months with no signs of improvement and it affects one's quality of life, then the next line of treatment is surgical. One less invasive option is a bulking agent which is injected during cystoscopy to bulk up the urethra to tighten the seal. These agents have variable success.

The final options are the sling procedure or the insertion of an artificial urinary sphincter (AUS). According to functional urologist, Professer Vincent Tse (University of Sydney), from the Concord Repatriation Hospital, slings provide some degree of static urethral compression with the aim of increasing the outlet resistance during storage without significantly compromising voiding function. The sling is inserted through the perineum under the scrotum and placed around the front of the urethra, requiring an overnight stay in hospital[4]. The AUS is inserted through a similar incision and an inflatable cuff is placed circumferentially around the urethra just underneath the entrance to the bladder. The cuff connects to a reservoir placed in the lower abdomen and to a pump placed in the scrotum. When there is an urge to urinate or the bladder feels full, one can deflate the balloon by pressing a button on the pump in the scrotum. After emptying the bladder, the pump in the scrotum is used to once again inflate the balloon to allow for continence.

The results of the highly anticipated MASTER Trial conducted in the United Kingdom was released earlier this year. The advantage of the simplicity of use of a male sling (in that it does not require the man to manipulate his device in order to void) must be balanced against some increased risks. The male sling group had higher incidences of postoperative re-catheterisation, and at 12 months, the male sling patients reported larger leakage quantities and higher use of pads. The male sling group also has higher incidences of infections, new bladder symptoms, and surgical site pain and higher chance of revision surgery. With the AUS (which is more costly) there is a higher incidence of device problems (fault with balloon reservoir or need for device repositioning). One of the proposed differences between devices is the circumferential positive pressure of the AUS works somewhat better than the unidirectional elevation offered by the sling. The study concluded that both the AUS and male slings are effective in significantly reducing urinary leakage. Overall and in the majority of men, both procedures improve quality of life, and satisfaction rates are high.

It might not seem like it now, but if you're enduring some of the unpleasant side effects of incontinence, remember this: only about 2 percent of men have long-term incontinence after radical prostatectomy, and if you're amongst that number, there is hope for you yet. Talk to your urologist: with the variety of options at your disposal to overcome the challenges posed by incontinence, there is certainly reason to be confident that it can be a dry July for you too. Don't forget to register your interest for Dry July 2021 in support of Prostate Cancer Foundation of Australia by signing up or donating at https://www.dryjuly.com/pcfa.

References

1. https://www.dryjuly.com/
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About the Author

Kalli Spencer
MBBCh, FC Urol (SA), MMed (Urol), Dip.Couns (AIPC)

Kalli is an internationally renowned Urological Surgeon, specialising in oncology and robotic surgery. He trained and worked in South Africa, before relocating to Australia where he has worked at Macquarie University Hospital and Westmead Hospital. His passion for what he does extends beyond the operating room, through publichealth advocacy, education and community awareness of men's health, cancer and sexuality.

Kalli has been involved with the Prostate Cancer Foundation of Australia for many years, advocating for improved cancer care and facilitating community prostate cancer support groups.