Incontinence following prostate cancer surgery

In this article...

- Individual experience of post-operative incontinence
- Continence assessment
- Strategies to regain continence

Abstract


I am a nurse with 25 years’ experience in continence care. This case study describes my personal experience of managing urinary incontinence after my husband’s radical prostatectomy for prostate cancer. The management of incontinence, alongside the treatment regimen, motivational strategies, dignity and the desire to regain bladder control, are described.

Prostate cancer in the early stages does not usually cause significant urinary symptoms (Prostate Cancer UK, 2013), so men who have it are not known to urology or continence services before a urological referral for diagnosis and treatment. A radical prostatectomy removes the prostate gland and some of the surrounding tissue; urinary incontinence after radical prostatectomy is a significant complication despite nerve-sparing surgery (Malde and Moore, 2013).

History and treatment

Terry* is an active man in his late 60s with type 2 diabetes and was diagnosed as having prostate cancer in April 2013. He experienced some urinary symptoms for about two years before diagnosis, including nocturia and urinary urgency. None of these were particularly troublesome but he had sought his GP’s advice.

Terry’s tumour was staged T2b (Bagnall, 2014, pages 12-15, details diagnosis and staging). He decided to have robotic-assisted laparoscopic prostatectomy (RALP) as it is a nerve-sparing procedure and minimally invasive. His consultant said he may not be able to save the nerves at the right side of the prostate and Terry was warned he would be incontinent of urine when the catheter was removed.

Post-operative progress

Surgery was successfully carried out in June 2013 and Terry was discharged 48 hours later with an indwelling urethral catheter. This was removed on the day ward, 11 days after his operation.

The nurses gave us small, rectangular pads to deal with any leakage and we had brought pull-up pads for the 90-mile journey home. Terry experienced urinary leakage very soon after the catheter was removed; the rectangular pads were inadequate and we used our most absorbent products while on the ward so we started the drive home poorly equipped. We had to stop at each service station en route and, two hours after leaving hospital, arrived home and had to face the fact that Terry was incontinent of large volumes of urine.

Assessment

Stress urinary incontinence (SUI) occurs after radical prostatectomy due to bladder-neck weakness from the removal of smooth muscle in the prostate and around the bladder neck. Involuntary contraction of this smooth muscle contributes to bladder control and once it is removed there is less resistance to increases in intra-abdominal pressure, which results in urine leakage on exertion. The pelvic floor muscles, which support the external sphincter, are therefore relied on to maintain control and prevent leakage. It is important for patients undergoing procedures likely to result in SUI to learn to contract the voluntary striated muscles correctly before surgery so an effective pelvic floor muscle training programme can be started.

Keywords: Prostate cancer/Surgery/Postoperative/Urinary incontinence

5 key points

1 Patients need practical advice on the use and suitability of continence products after surgery
2 Incontinence after surgery should be assessed to exclude problems such as urinary tract infection and constipation
3 Patients should have enough continence products when their catheter is removed, as well as details of how to get further supplies
4 Before having the operation, patients should be taught pelvic floor muscle exercises by a continence specialist nurse or physiotherapist
5 After their operation patients should have access to telephone support for continence advice

Patients may experience nocturia
implemented post-operatively. As well as SUI, other bladder dysfunction may be present after RALP so ongoing re-assessment of symptoms is needed. In Terry’s case, he had experienced some urinary urgency before surgery, which can indicate an overactive bladder (OAB). A bladder that contracts more powerfully than normal will be harder to control if its outlet mechanism is compromised.

Management and treatment plan

Containment
During his stay in hospital, Terry did not drink any coffee and decided to continue to avoid caffeine at home as it causes diuresis – urinary frequency and urgency at lower volumes (Lohsiriwat et al, 2011). Urinary tract infection may exacerbate urinary leakage. Terry had a UTI and a course of the antibiotic trimethoprim was prescribed. Constipation and straining will stretch and weaken the pelvic floor muscles and can affect catheter drainage so, in the first few days post-operatively, Terry took the laxative lactulose. After this, a well-balanced diet and increasing mobility promoted normal bowel movements.

The immediate priority was to contain urine leakage and maintain Terry’s dignity. We decided to use pull-ups initially and bought our own. Many continence services do not supply absorbent products to men for at least three months after prostate cancer surgery, and most would not supply pull-ups (Harari et al, 2013). However, these best met Terry’s needs as they prevented leakage and he could easily adjust the pad to void urine, especially if he experienced urgency. The summer months were warm and Terry could also wear light-coloured shorts without the pull-ups being visible.

Once his urinary leakage had reduced, Terry chose the male pouch for daytime use and used a lighter-absorbency pull-up for night. The male pouch was equally reliable and discreet, and close-fitting underpants kept it comfortably in place.

Pad weighing
In the first few weeks internal swelling meant there were some vast fluctuations in the volume of leakage Terry experienced. Leakage would regularly be worse in the afternoon and evening as the pelvic floor became fatigued. To monitor his progress, Terry weighed the used pads; this provided an objective measure of progress and became fatigued. To monitor his progress, leakage would regularly be worse in the first few weeks post-operatively. Terry took the lactulose. After this, a well-balanced diet and increasing mobility promoted normal bowel movements.

To assess the pelvic floor muscles rectally soon after surgery would be contraindicated but by placing a finger on the perineum, a pelvic floor muscle contraction can be palpated. By encouraging the patient to lift the muscles you can count how long a slow contraction can be sustained, up to 10 seconds. This is repeated after a four-second rest to determine the number of times this can be repeated, up to a maximum of 10. Fast contractions must also be performed. These are the same tightening of the pelvic floor muscles without the hold – “tighten, relax, tighten, relax” up to a maximum of 10. The slow and fast exercises are repeated three times a day (National Institute for Health and Care Excellence, 2010).

Terry’s pelvic floor muscle contracted well but he was unable to hold the contraction for more than a count of six. He could repeat this five times before the muscles were fatigued and could do six fast contractions. His pelvic floor exercise programme was set at five slow contractions, holding for six seconds, and six fast contractions; this was repeated three times a day.

Terry did his exercises lying down initially as this exerts the least pressure on the pelvic floor. When an improvement was noticed he began to do them sitting or standing. He also tightened his pelvic floor before any exertion.

Fluid intake
Many recommendations exist regarding the optimal fluid intake over 24 hours; some suggest calculating this based on body weight, taking existing medical conditions into account. On most days Terry’s output was 2,500–3,000ml, with a similar intake. He had reduced his intake of caffeine but was still drinking well, which reduced his risk of UTI and constipation. His fluid intake was the same as pre-operatively and we did not see any reason to reduce this.

Outcomes
At the first follow-up appointment with the consultant, we were told the cancer had started to spread from the prostate gland into the seminal vesicle in two small areas and, microscopically, was staged as T3b. The median lobe of the prostate was enlarged, with benign cells indicating benign prostatic hypertrophy. This area was partially occluding the urethra and causing the initial lower urinary tract symptoms. The bladder wall was also thickened, indicating that the detrusor or bladder muscle had been contracting more powerfully to push urine past the obstruction. This was causing the OAB symptoms. Terry has been offered assessment for possible radiotherapy but, so far, has decided not to take it. He will be regularly followed up and his prostate-specific antigen (PSA) monitored.

Continent and bladder function
Terry achieved continence 9–10 weeks after the catheter was removed. He stopped using pads at night during week eight, and 10 days later stopped using a pad in the day. Overall, he was continent fewer than 12 weeks after the operation.

Now, six months after surgery, Terry’s bladder capacity is now around 400ml and his urine flow is excellent. There is no hesitancy or intermittent stream and no post-micturition dribble. He occasionally experiences urinary urgency but does not see it as a problem as he can “hold on” until he reaches the toilet.

Terry is positive about the future and, between PSA tests and hospital appointments, we are living life to the full. He feels his bladder function is good but knows the importance of continuing with the pelvic floor muscle exercises. NT

Reference
Prostate Cancer UK (2013) Signs and Symptoms. tinyurl.com/Prostate-signs