

Quality of life issues following surgery for vulval cancer: a case report

McClurg, Doreen; Hagen, Suzanne

Published in:
Physiotherapy Research International

DOI:
[10.1002/pri.442](https://doi.org/10.1002/pri.442)

Publication date:
2009

Document Version
Author accepted manuscript

[Link to publication in ResearchOnline](#)

Citation for published version (Harvard):
McClurg, D & Hagen, S 2009, 'Quality of life issues following surgery for vulval cancer: a case report', *Physiotherapy Research International*, vol. 14, no. 3, pp. 193-198. <https://doi.org/10.1002/pri.442>

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

If you believe that this document breaches copyright please view our takedown policy at <https://edshare.gcu.ac.uk/id/eprint/5179> for details of how to contact us.

Quality of Life Issues Following Surgery for Vulval Cancer A Case Report

Key words

Incontinence, pelvic floor muscle training, quality of life

Word count 2180

Corresponding Author

Doreen McClurg PhD MCSP

Nursing, Midwifery and Allied Health Professions Research Unit

Glasgow Caledonian University

Glasgow

G4 0BA

Email: doreen.mclurg@gcal.ac.uk

Telephone: 0141 331 8105/07773984594

Fax: 0141 331 8101

Suzanne Hagen Phd MSc BSc CStat

Nursing, Midwifery and Allied Health Professions Research Unit

Glasgow Caledonian University

Glasgow

G4 0BA

Quality of Life issues Following Surgery for Vulval
Cancer
A Case Report

Abstract

Surgical intervention for vulvar cancer and vulvar intraepithelial neoplasia (VIN) causes mutilation of the genital area and can impose significant bladder, bowel and sexual dysfunction. However, as reported in this case study, conservative interventions such as pelvic floor muscle training (PFMT) can reduce the long-term morbidities of such dysfunction.

Introduction

Although relatively uncommon, the incidence for vulval cancer and vulvar intraepithelial neoplasia (VIN) is increasing, especially in a younger age group (Hample et al 2008). Surgical excision is the primary treatment with extent dependent on size, depth and focality of the lesion/lesions. Following resection there is evidence that body image is disturbed, sexual and pelvic floor dysfunction is prevalent, and lymphoedema may develop (Liles et al 2007). The impact of such co-morbid conditions are poorly described in the literature and it is difficult to estimate the incidence of e.g urinary incontinence, as often patients do not tell their gynaecologists about the problem, being willing to accept side-effects - happy to be alive and willing to 'pay a price' (Axelsen and Petersen 2006). Nevertheless, a consensus of available evidence would suggest that de novo or an increase in stress urinary incontinence is a complication of surgery with an incidence of 51% (Reid et al 1990) and up to 70% reporting spraying (Landoni et al 1995). The fact that these patients are presenting younger and cancer is now seen as a 'long-term condition' it is important that the consequences of these co-morbid conditions are addressed.

The pelvic floor muscles (PFM) are under partial voluntary control and a programme of training is recommended as the first line of treatment in stress urinary incontinence in the general population. PFMT is defined as 'repetitive selective voluntary contraction and relaxation of specific pelvic floor muscles' (Abrams et al 2002) and aims to make changes in a non-optimally functioning pelvic floor by improving the force generation, incorrect timing or co-ordination of the pelvic floor muscles (Bø and Sherburn 2005). These authors also state that because the PFM are untrained in most people an appropriate training programme should produce a change in PFM function or force, even in the presence of tissue pathology (e.g. neuropathy). Following radical/partial vulvectomy, although often

advocated in clinical practice, there is little evidence in the literature as to its effectiveness in preventing or improving continence following such surgery.

This case report focuses on the changes in continence and quality of life following PFMT in a patient who underwent radical vulvectomy.

Initial Assessment

Miss J was 45 years old, her BMI was 34 (obese), she was nulliparous and had never been sexually active. There was no relevant medical history and no problems with continence pre-surgery. Menstruation had been irregular since before surgery, hormone levels, according to Miss J, showed that she was peri-menopausal. Miss J stated that she had been aware for quite some time of the presence of something 'down below' but had ignored it for as long as possible until one morning she had woken up bleeding profusely. She was admitted to hospital, and following routine tests underwent a vulvectomy which included the tip of the urethra, bilateral groin node removal, and primary closure (i.e. no skin graft). Following surgery she had an indwelling catheter in situ for 3 weeks, bilateral groin node drains for 10 days, was not allowed to sit for approximately one week, but was mobilising short distances from day 3. There were no significant post-operative complications and no neo-adjunct treatment was considered necessary. Miss J stated that she found mobilising post-operatively difficult and had to use a walking aid initially, and would still use a stick occasionally. Before attending Miss J had completed a 3-day bladder diary and the ICIQ-short form questionnaire.

Bladder Diary

The bladder diary confirmed she changed pads (medium size) 4-6 times a day, and was going frequently to the toilet (15 times per 24 hours). Maximum amount voided was 100mls first thing in the morning, the smallest volume was 15ml. Fluid intake averaged 1000 ml per day.

Miss J stated that except when sneezing or coughing, she was unaware of leakage. The only time she felt the urge to go to the toilet was first thing in the morning, most other times she just went to see if she was wet. Spraying occurred but this was not considered a problem. Most nights she did not need to get up to go to the toilet, but did not drink anything from 18.00. She wore a pad at night but felt it was quite often dry until she got out of bed to go to the toilet. Miss J reported no problems with bowel management.

Medication: anti-muscarinic medication had been tried on two occasions, but were of no benefit and had some side effects. She was not on any other medication.

ICIQ-SF

Miss J scored 21 on the ICIQ-SF indicating she was leaking a large amount especially during physical activity/coughing and sneezing, and had a big impact on her everyday life (10/10) The ICIQ is a brief and robust questionnaire used in the assessment of the prevalence, frequency, and perceived cause of urinary incontinence, and its impact on everyday life. It comprises three scored items and an unscored self-diagnostic item (Avery et al 2004).

Digital Assessment

Following valid consent and with adherence to local infection control policies a digital vaginal assessment of the pelvic floor muscles was undertaken with Miss J lying in the lithotomy position. Due to Miss J's obesity vaginal assessment was difficult.

Visual examination: All the wounds appeared healed and there was no evidence of disease re-occurrence, however some excoriation around the groin and inner thigh areas was evident.

Miss J stated that she had just started to use some emollient cream which had been recommended by the practice nurse. The labia and clitoris had been removed.

When asked to do a pelvic floor muscle contraction there was a flicker of movement around the anus, no perineal lift was evident.

Sensation - reduced sensation to light touch was evident around the perineal area (S4). S2 and S3 dermatomal sensation appeared normal.

Examination - The vaginal orifice allowed entrance of one finger only. The vaginal mucosa was slightly pale and dry. No unpleasant odour or discharge was noted. There were no areas of tenderness within the vagina, Grade 1 anterior prolapse was present, the cervix was not palpable and no faeces were palpable in the rectum. Miss J could accurately describe the area being assessed when palpated deeply but not on light touch. When asked to contract the pelvic floor muscles a flicker was present only on the deeper muscles on the left side, although she was unsure if she was performing a contraction. A weak reflex contraction on the left side was present when Miss J was asked to cough. There was no evidence of the superficial muscles gripping the index finger proximally. These findings would represent a Grade 1 on the Modified Oxford Scale (Laycock 2001) or a Weak contraction on the ICS grading scale (Messelink et al 2005).

Again, due to Miss J's obesity it was difficult to judge if her legs swelling/size had increased since surgery, however the right thigh measurements were on average 2 cm more in circumference than the left, and she complained of pain in the right knee, which was probably the result of an old injury.

Subjective

The main problems at the time of assessment were urinary incontinence, fatigue and some swelling of her legs, especially the right. Miss J rated the incontinence to be affecting her quality of life most and was a significant factor in preventing her going to back to work, even

on a part-time basis. She said she was afraid that people would notice a smell, although she was showering at least twice a day and changing the pads frequently.

Treatment

It was explained to Miss J that the incontinence was probably due to the surgery having an impact on the muscles that help to keep her dry. In theory the leakage could be due to damage to the superficial pelvic floor muscles, nerves or a slight alteration in the anatomical structure whereby the angles are slightly different and occlusion would not occur. During the discussion it was suggested that strengthening and re-training of the muscles of the pelvic floor may help to regain some control, but it would take time and commitment on her part to do the exercises at home. Miss J was keen to try and help herself, she did not want any more surgery.

As Miss J was unable to feel when she was doing a correct pelvic floor muscle contraction it was decided to use intravaginal electromyography biofeedback. An intra-vaginal device called a Periform (Neen Healthcare, Oldham, UK) was therefore inserted into the vagina and connected up to a biofeedback device (NeurotracTM ETS Unit, Verity Medical Ltd. Hampshire, UK) and computer screen - a graph could then be seen which is supposed to correlate to the bioelectrical activity of the muscles. Thus the patient is provided with visual and auditory feedback and encouragement when contracting the muscles correctly. This was used at each out-patient appointment and also provided a record of progress.

Breath holding and co-contraction of the thigh muscles was actively discouraged. Co-contraction of the transversus abdominis was encouraged. Short quick contractions, endurance exercises and changes of functional position were all incorporated into the exercise regimen.

Advice

Miss J was advised

- To increase her fluid intake slightly.
- To lose weight as this could impact on her incontinence, fatigue and mobility issues.
- Not to go to the toilet as often - to try and only go when she felt the need to pass urine. We started by saying she should not go less than every 45 minutes and gradually increased this time to 2½ hours. This was a slow process but gradually she regained the feeling of when she needed to go to the toilet. At the same time the volume voided increased and the amount of leakage appeared to decrease. Initially a daily voiding frequency chart was provided for Miss J to complete and bring to clinic; After 12 weeks this was changed to a 3 day chart completed before attending clinic.

Home exercises

An exercise time-table which documented the repetitions, length of hold and position when doing the exercises was provided and reviewed at each attendance. A Pelvic Floor Educator was also provided to the patient for use at home (Neen Healthcare, Oldham UK). Most weeks the number of contractions were increased, position for doing the exercise was changed and gradually the length of hold was increased as viewed on the EMG biofeedback and following repeat vaginal examination at 4, 8, 12, 16 and 24 weeks.

Miss J was seen once a week for the first 4 weeks, and then fortnightly for the next 12 weeks (Total 16 weeks) with a follow-up at 24 weeks.

Results

Week 24

Bladder diary

Fluid input was 1500ml per day

Frequency of voiding was 7 per 24 hours, average volume voided was 130ml, maximum voided volume was 160ml, first thing in the morning.

The number of pads was 3 per 24 hours. Miss J again reported that quite often these felt dry.

ICIQ-SF

The score was now 10, results again indicating small amounts of leakage but did not interfere with her life so much (4/10).

Vaginal Assessment

All areas looked healthy. Pelvic floor muscle endurance was still 2/3 seconds but now at a Grade 2 Modified Oxford Scale; (Weak ICS). No tightening/gripping could be felt of the superficial muscles. Sensation was still reduced but Miss J stated that she was confident when doing the 'quick exercises' but was still unsure when trying to hold when she let go. Bilateral weak contraction of the deep pelvic floor muscles could be felt on coughing.

Subjective

Miss J was now back to work almost full time, although easily fatigued. She had attended a dietician but had failed to lose weight. The leakage of urine was not now a significant factor in her life, it was not stopping her doing anything or going anywhere; she could not do without pads and was reluctant to reduce the size. Naturally she would rather be completely dry but at the moment she was satisfied with the result of treatment.

Conclusion

Following vulvar surgery patients can often be left with urinary incontinence which can significantly impact their quality of life. A survey of present clinical practice by

physiotherapists working on gynae/oncology wards was undertaken by the author and demonstrated that in-patients were sometimes provided with some advice, but on discharge were only seen for follow-up if a problem was identified. As stated earlier, such co-morbid conditions are often not identified at routine review consultation, partially due to the reluctance of the patient to 'complain' and the focus of the consultant is on the primary disease. As described in this case report conservative treatment may offer at least a partial solution. Research is therefore required both to identify the need and validate the effect of such conservative intervention by comparing intervention to no intervention.

References

- Abrams P, Cardozo L, Fall M, Griffiths D, Rosier P, Ulmsten U, van Kerrebroeck P, Victor A, Wein A. The standardisation of terminology of lower urinary tract function: report from the Standardisation Sub-committee of the International Continence Society. *Neurourology and Urodynamics* 2002; 21(2): 167-178.
- Avery K, Donovan J, Peters T, Shaw C. ICIQ: A brief and robust measure for evaluating the symptoms and impact of urinary incontinence. *Neurourology and Urodynamics* 2004; 23 322-330
- Axelsen SM, Petersen LK. Urogynaecological dysfunction after radical hysterectomy. *European Journal of Surgical Oncology* 2006; 32(4): 445-449
- Bø K, Sherburn M. Evaluation of female pelvic floor muscle function and power. *Physical Therapy* 2005; 85(3): 269-282.
- Hample M, Deckers-Figiel S, Hampl JA, Rein D, Bender H. New aspects of vulvar cancer: Changes in localization and age of onset. *Gynecologic Oncology* 2008; 109: 340-345
- Landoni F, Prosperpio M, Maneo A, Cormio G, Zanetta G, Milani R. Repair of the perineal defect after radical vulvar surgery: direct closure versus skin flap reconstruction. A retrospective comparative study. *Aust N Z J Obstet Gynaecol* 1995; 35: 300-304
- Laycock J., Jerwood D. pelvic Floor assessment; the PERFECT scheme *Physiotherapy* 20001; 87(12) 631-641
- Likes WM, Stegbauer C, Tillmanns T, Pruett J. Pilot study of sexual function and quality of life after excision for vulvar intraepithelial neoplasia. *Journal of Reproductive Medicine* 2007; 52: 23-27
- Messelink B, Benson T, Berghmans B, et al. Standardization of terminology of pelvic floor muscle function and dysfunction: report from the pelvic floor clinical assessment group of the International Continence Society. *Neurourology and Urodynamics* 2005; 24(4):374-80
- Reid G, DeLancey John OL, Hopkins MP, Roberts J, Morley G. Urinary incontinence following radical vulvectomy. *Obstetrics & Gynecology* 1990; 852-858