CASE REPORT

Iatrogenic urethral prolapse following vaginal hysterectomy and anterior repair

Ben Horsburgh,¹ Gurpreet Singh²¹Mersey Deanery, Liverpool, UK²Department of Urology, Southport and Ormskirk Hospital NHS Trust, Southport, UK

Correspondence to

Ben Horsburgh,
benhorsburgh@hotmail.com

Accepted 14 November 2014

SUMMARY

A 62-year-old woman presented 3 weeks following vaginal hysterectomy and anterior repair with exquisite urethral pain, incontinence and complete urethral prolapse. Following examination under anaesthesia and cystoscopy, anterior vaginal repair sutures were removed with spontaneous reduction of the prolapse. At a 5-week follow-up appointment, the patient was asymptomatic with resolution of the urethral prolapse.

BACKGROUND

This is an unreported complication post vaginal surgery. Such surgery is common and it is important to report complications. We suspect that this complication is unique in the literature due to under-reporting. The importance of this case is to increase awareness of the complication, describe management and that excision of urethral prolapse is not always required.

CASE PRESENTATION

A 62-year-old woman presented urgently to the urology service with severe dysuria, urinary incontinence, urethral pain and urethral prolapse with serosanguinous discharge. This woman had hypothyroidism, was taking levothyroxine and had no surgical history prior the vaginal surgery.

Three weeks prior to admission she had undergone a vaginal hysterectomy. An anterior vaginal repair was also performed using a purse string 2-0 vicryl absorbable suture. A urethral catheter was inserted until 24 h postprocedure.

One week postsurgery the patient developed dysuria and was treated for a urinary tract infection empirically with cefalexin by her general practitioner. A review in primary care 2 weeks postsurgery found that the pain had worsened. Examination demonstrated a urethral haematoma. Subsequent gynaecology review described a 3×3 cm urethral caruncle engorged with venous blood, and a vaginal wound that was healing adequately. It was considered that this presentation may be secondary to the anterior repair sutures. Following prolonged discussion with the urology team manual reduction of the urethra was performed by the gynaecologists, and as it was successful, the patient was discharged with topical analgesia.

One week later when seen at urology outpatients the prolapse had recurred, was engorged, haemorrhagic, oedematous, exquisitely tender and the patient was completely incontinent of urine. Manual reduction was not possible therefore the patient was admitted directly for urgent surgery.

INVESTIGATIONS

Imaging would not have been useful in this case. A full blood count, urea and electrolytes, liver function, bone profile and C reactive protein were all within the normal limits. A mid-stream urine analysis demonstrated raised red cell and white cell counts and growth of mixed contaminants.

DIFFERENTIAL DIAGNOSIS

Urethral caruncle, urethral carcinoma.

TREATMENT

An examination under general anaesthetic was performed. This revealed a healthy looking vaginal wound and extensive urethral mucosal prolapse (figure 1). Cystoscopy revealed normal open ureteric orifices at the bladder neck level, no bladder perforation or leakages and traumatic changes at the bladder base. Manual reduction of the prolapse failed. Bimanual examination identified a suture in close proximity to the bladder neck (figure 2). This circumferential purse string and transverse 'Kelly' buttress suture was removed with

Figure 1 Introitus with prolapsed indurated urethral mucosa.

CrossMark

To cite: Horsburgh B, Singh G. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2014-207798

Figure 2 Anterior vaginal sutures.

immediate and spontaneous reduction of the majority of the prolapse, without the need for any excision of mucosa (figure 3). The remaining minimal prolapsed tissue was oedematous, and hence it was deflated using the Dundee technique used for paraphimosis.¹ This is a technique using multiple needle punctures to reduce oedema. A vaginal pack was inserted to assist with haemostasis and reduce the considerable ooze from the oedematous mucosa. An 18 Fr urethral catheter was inserted to protect urinary drainage from postsurgical obstruction resulting from oedema. A suprapubic catheter was not deemed necessary as postreduction, the urethra appeared patent with no breakdown of tissue.

OUTCOME AND FOLLOW-UP

Day 1 postsurgery the patient was pain free following removal of the vaginal pack. The urethral meatus appeared structurally normal other than mild petechiae. The catheter drained clear urine. A trial without catheter 2 weeks later was successful.

Figure 3 Following release of sutures and bladder neck with spontaneous reduction of the urethral mucosa into its orthotopic position.

Follow-up 5 weeks postdischarge found that asymptomatic mild urethral prolapse was still present. Mild stress incontinence had developed since the surgery but no other lower urinary tract symptoms were reported. The patient was referred for supervised pelvic floor exercises and will be followed up by gynaecology.

DISCUSSION

Urethral prolapse is an unreported complication of vaginal surgery. Spontaneous prolapse is rare with only a few case reports managing this condition with conservative measures or excision.^{2–3} It is likely in this case that the anterior vaginal sutures placed traction on the bladder neck towards the level of the urethral meatus, reducing urethral length and hence the mucosa prolapsed externally through the path of least resistance. Reported complications of vaginal surgery do not include urethral prolapse, but it is known that 10% of women develop new urinary symptoms following prolapse repair.^{4–6}

Management was successful without detriment to the prolapse surgery. Vaginal tissue integrity had 3 weeks to develop postanterior repair and hence the release of the suture did not result in breakdown of the wound. Classical technique for anterior repair does not include cystoscopy but patient information leaflets and recent review of technique suggest that it may be required to ensure there is no bladder or ureteric injury.^{4–5–7}

Learning points

- ▶ Vaginal sutures when applied around the bladder neck may carry the risk of purse string obstruction.
- ▶ Excision of urethral mucosa when prolapsed is not always required.
- ▶ Routine cystoscopy following anterior repair may identify bladder injuries.
- ▶ New conditions presenting shortly after surgery are likely to be iatrogenic and should be considered not as a new pathology.

Acknowledgements The authors thank Mr Mark Davies (Consultant Gynaecologist) for review of the paper.

Contributors GS involved in the editorial support.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES

- 1 Reynard JM, Barua JM. Reduction of paraphimosis the simple way—the Dundee technique. *BJU Int* 1999;83:859–60.
- 2 Yucetas U, Balaban M, Aktas A, et al. Spontaneous postmenopausal urethral prolapse: a case report and review of literature. *Arch Ital Urol Androl* 2012;84:214–15.
- 3 Abouzeid H, Shergill IS, Al-samarrai M. Successful medical treatment of advanced urethral prolapse. *J Obstet Gynaecol* 2007;27:634–5.
- 4 Royal College of Obstetrics and Gynaecology. Vaginal Surgery for Prolapse. <http://www.rcog.org/files/rcog-corp/CA5-15072010> (accessed 15 Sep 2014).
- 5 International Urogynecological Association. Anterior vaginal repair (bladder repair). http://c.ymcdn.com/sites/www.iuga.org/resource/resmgr/brochures/eng_antvwrepair (accessed 15 Sep 2014).
- 6 Maher C, Baessler K, Glazener CM, et al. Surgical management of pelvic organ prolapse in women: a short version Cochrane review. *Neurourol Urodyn* 2008;27:3–12.
- 7 Reid F, Smith T. Anterior vaginal repair. *Obstetrician Gynaecologist* 2012;14:137–41.

Copyright 2014 BMJ Publishing Group. All rights reserved. For permission to reuse any of this content visit <http://group.bmj.com/group/rights-licensing/permissions>.
BMJ Case Report Fellows may re-use this article for personal use and teaching without any further permission.

Become a Fellow of BMJ Case Reports today and you can:

- ▶ Submit as many cases as you like
- ▶ Enjoy fast sympathetic peer review and rapid publication of accepted articles
- ▶ Access all the published articles
- ▶ Re-use any of the published material for personal use and teaching without further permission

For information on Institutional Fellowships contact consortiasales@bmjgroup.com

Visit casereports.bmj.com for more articles like this and to become a Fellow