CASE REPORT

Bilateral ureteric obstruction: an unusual complication of male-to-female gender reassignment surgery

Nivin Rezwan,¹ Anas Abdel Basit,² Henry Andrews²¹Milton Keynes Hospital, Milton Keynes, UK²Department of Urology, Milton Keynes Hospital, Milton Keynes, UK

Correspondence to

Dr Nivin Rezwan,
nivinrezwan@hotmail.com

Accepted 16 April 2014

SUMMARY

Gender reassignment surgery is a form of treatment for gender dysphoria. It can be male-to-female or female-to-male. We present a patient who underwent male to female reassignment and had a vaginal reconstruction. She presented almost a year later with acute kidney injury and bilateral ureteric obstruction, subsequently ending up with nephrectomy for a non-functioning kidney.

BACKGROUND

The incidence of gender dysphoria is 1:2000 (or about 0.05%) in Netherlands and Belgium¹ to 1.2% in New Zealand.² The male-to-female transformation is performed by a spectrum of surgeries in different combinations, such as vaginoplasty, clitorolabioplasty, penectomy and orchidectomy. The common complications of such procedures are vaginal stenosis, urethral stricture, meatal stenosis, rectovaginal fistula and ureterovaginal fistula.³

Vaginal reconstruction is an extensive surgery. We present a case in which pelvic scarring postsurgery resulted in bilateral ureteric obstruction and ultimately lead to a non-functioning kidney which had to be removed by laposcopic nephrectomy.

CASE PRESENTATION

This 54-year-old woman presented 13 months after her gender reassignment surgery with abdominal pain and distension. Her creatinine level was 282 µmol/L and estimated-glomerular filtration rate –21. Ultrasound of the abdomen showed bilateral partially obstructed kidney of no known cause. CT of the abdomen and pelvis suggested a possible rectosigmoid mass/neoplasm (figure 1) and asked to exclude fibrotic change in bony pelvis. As kidney function worsened bilateral ureteric stents were placed and MRI of the abdomen and pelvis was performed later excluded any rectal mass, but reported scar tissue along the pelvic side wall bilaterally which was encasing the lower ureters leading to obstruction and it also raised a possibility of a haematoma (figure 2). After bilateral JJ stenting she was discharged home but suffered from repeated urinary tract infection and was put on long-term nitrofurantoin.

Seven months later she attended for stent changing, while a definitive plan for her pelvic scarring, causing ureteric obstruction was made. After removal of the old stent over a guide wire on the left, a JJ stent could not be retrogradely advanced because of dense scarring obstructing the lower ureter. The patient subsequently required a

Figure 1 Thickening of rectosigmoid wall.

nephrostomy and antegrade stenting. On the right the stent was changed successfully.

The patient was referred to a tertiary centre at this point. Bilateral ureteric re-implantation was suggested but a radioisotope renography scan showed differential function of 99% on the right but left kidney was barely functioning. After further discussion, the proposed surgery agreed on was a psoas hitch and ureteric re-implantation on the right with a simple nephrectomy on the left. Owing to repeated infections and bladder pain, a right-sided nephrostomy was now placed and both stents were removed. Most interestingly 6 years after reconstruction surgery, when she was admitted for right ureteric re-implantation, percutaneous nephrostogram was performed and showed that the

Figure 2 Scar tissue in the pelvis.

CrossMark

To cite: Rezwan N, Basit AA, Andrews H. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2014-204894

stricture in the right ureter had completely resolved, likely due to regression of scar tissue. A laparoscopic left nephrectomy was performed without any complications.

OUTCOME AND FOLLOW-UP

Postoperatively she recovered very well with good renal function and no infection. An MRI performed 3 years after nephrectomy showed no hydronephrosis and minimal pelvic scarring.

DISCUSSION

Vaginal reconstruction does come with a myriad of complications including rectovaginal fistula, urethral fistula, vaginal stenosis, with loss of either depth or width, urethral stenosis, hair growth in the vaginal canal if scrotal skin is used for construc-

tion, excessive production of mucous if bowel segment is used to construct the vagina. Other complications that arise are venous thromboembolism.

There have been a few case reports on fistulas, vaginal stenosis and urethral stenosis, but no case reports have been found on ureteric obstruction due to pelvic scarring.³

Our patient had bilateral ureteric obstruction to begin with but as the pelvic haematoma and subsequent pelvic scarring regressed the ureter was freed from compression. Unfortunately, during the process one of her kidneys became non-functioning.

Contributors NR wrote this case report and collected all information and review of available literature. AAB has reviewed the literature, obtained consent in clinic and helped NR write and proofread the case. HA was involved in patient care, and has meticulously reviewed the case and proofread.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

Learning points

- ▶ Bilateral ureteric obstruction is an unknown/unreported complication in patients of gender reassignment surgery.
- ▶ Extensive pelvic scarring can cause ureteric obstruction leading to non-functioning kidneys.
- ▶ Surgeons who specialise in gender reassignment surgery should be aware and lookout for such complications.
- ▶ Our case report shows that pelvic scarring does regress a few years later and ureteric compression resolves.

REFERENCES

- 1 Olyslager F, Conway L. *Transsexuality is more common than you think a new perspective on the prevalence of transsexualism in the Netherlands and Belgium. Tijdschrift voor Genderstudies (in Dutch)*. Vol 11. Amsterdam: Amsterdam University Press, 2008:39–51. ISSN 1388-3186.
- 2 Clark TC, Lucassen MF, Bullen P, *et al*. The health and well-being of transgender high school students: results from the New Zealand Adolescent Health Survey (Youth'12). *J Adolesc Health*. Published Online First: 14 Jan 2014. doi:10.1016/j.jadohealth.2013.11.008
- 3 Selvaggi G, Bellringer J. Gender reassignment surgery: an overview. *Nat Rev Urol* 2011;8:274–82.

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