URETHROPLASTY FOR URETHRAL STRICTURES

Stricture is scar tissue causing obstruction and narrowing in the urethra, the urinary tube. Stricture may arise from injury, from previous surgery or catheterisation, from infection, or, most commonly, without obvious cause. Stricture tends to cause obstructive urinary symptoms and without treatment causes bladder thickening, distension and dysfunction. Significant strictures should therefore be treated surgically. Short sharp strictures may be opened telescopically with a 50% cure rate. Those that recur, and all longer complex strictures, require open urethroplasty.

Urethroplasty involves either:

1. opening through the scar and grafting tissue, commonly mucosa taken from the lining of the mouth; or
2. excision of the scarred segment, rejoining the cut ends after mobilisation.

The operation is performed under general anaesthetic through a midline perineal incision, from the scrotum back to the anus. The scarred area is excised and mouth (buccal) mucosa is taken from inside of the cheek. A suprapubic catheter is left for 14 days for bladder drainage and a urethral catheter for 14 days for graft compression.
Rarely a short suprapubic incision may be needed to access the bladder.
Mouth (buccal) mucosa is taken from inside of the cheek.
Rarely, urethral mobilisation may be required, including re-routing the urethra around the penile bodies.
Strictures towards the tip of the penis may be repaired in 2 stages.

WHAT TO DO BEFORE YOUR PROCEDURE:

- ensure laboratory tests are done > 48 hours prior to surgery, unless advised otherwise
- discontinue aspirin and other anticoagulants 1 week prior, other medications may also need to be stopped
- nothing to eat or drink from 6 hours prior to procedure - see Admission Booklet regarding diet restrictions
- microlax enema morning of the procedure for afternoon procedures, evening prior for morning procedures
- you will be admitted to hospital on the day of surgery.
- you do not need to shave prior to surgery

WHAT HAPPENS IN HOSPITAL AFTER YOUR PROCEDURE:

- day 1: limited mobilisation / bedrest
- day 2: discharge home on antibiotics with catheters in place ; keep penis and indwelling urethral catheter taped up onto abdomen.
- saline mouthwashes for comfort

WHAT HAPPENS AFTER YOU LEAVE HOSPITAL:

- activities restricted by catheters for 2 weeks
- continue saline mouthwashes for comfort
- continue antibiotics x 1 week
- withhold aspirin and other anticoagulants for 1 week but reinstate other usual medications.
- post-operative constipation is a common problem and may be minimised with good fluid intake, dietary fibre and laxatives.

- the urethral catheter and penis must remain immobilised and taped on the abdomen for 2 weeks
- urethrogram at 2 weeks with removal of urethral catheter in Radiology
- return to clinic at 2 weeks, post urethrogram, for removal suprapubic catheter
- avoid heavy lifting for 2 weeks
- resume full normal activity by 4-6 weeks including sexual intercourse
- follow up flexible cystoscopy at 3-6 months to check graft and urethroplasty site

WHAT CAN GO WRONG:
Although most cases proceed without particular difficulty and have excellent outcomes, surgical complications occur overall in <10% of patients. The most common and bothersome is restricturing, which may reflect an underlying process affecting the entire urethra. Hence the follow up flexible cystoscopy at 3-6 months. Restricturing may be treated with dilatation, telescopic incision or revision urethroplasty.

The list below details potential complications recognised as common or serious, but this does not include the rare and extraordinary. Risk of death is approximately 0.03% in generally healthy patients.

AT THE TIME OF AND EARLY AFTER SURGERY:

- Bleeding requiring blood transfusion in < 1%
- Infection may require antibiotic treatment <3%
- Numbness or tingling in legs, genitalia and perineum is usually temporary
- Risk of death may be estimated using the nzRISK https://nzrisk.com on-line pre-operative calculator. It has been developed and validated for patients in New Zealand over the age of 18, to help patients and doctors balance benefits and risks of treatment.

LATER POTENTIAL COMPLICATIONS :

- Recurrent stricture <10%
- Post void dribbling and spraying of stream is common
- Penile tethering, felt as a ‘tightness’ below the penis
- Outpouching of urethra
- , Erectile dysfunction and sexual dysfunction, with reduced ejaculate ; erectile dysfunction is more common with anastomotic urethroplasty and rare with buccal mucosa graft urethroplasty ; erectile dysfunction may be from the original injury causing the urethral stricture
- Incontinence - secondary to pre-existing bladder dysfunction, unmasked by urethroplasty