Pt	Urethral disease	Site of disease	Cause	Previous surgery	Kind of stent (mm)	Bladder drainage	Complications	Migration	Site of migration	Indwelling time (months)	Follow up (months)	Recurrence
1	Stricture	Bladder neck	RARP + RT	U-thomy (4)	60x16	SP tube	None	Yes	Bladder	3	9	Yes
2	Stricture	Bladder neck	RRP	U-thomy (3)	40x16	None	None	Yes	Bladder	6	6	No
3	Stricture	Bladder neck	RARP + RT	U-thomy (5)	40x16	SP tube	SP displacement	No	-	2	7	No
4	Stricture	Bladder neck	RRP	U-thomy (2)	40x16	SP tube	none	Yes	Bladder	2	7	Yes
5	Stricture	Bulbar	Trauma with incomplete fracture	U-thomy (3)	60x16	none	none	No	-	12	8	No
6	Stricture	Bulbar	Trauma with incomplete fracture	U-plasty	60x16	none	UTI	No	-	12	24	No
7	Stricture	Bulbar	Trauma with complete fracture	U-plasty	40x16	none	none	No	-	12	11	Yes
8	Stricture	Membranous-bulbar	TURP	U-thomy (1)	40x16	none	none	No	-	6	10	No
9	Stricture	Bulbar	TURP	U-thomy (1)	40x16	SP tube	Urethral pain	No	-	6	9	No
10	Stricture	Bulbar	Exeresis of urethral diverticulum	U-plasty	40x14	none	none	No	-	6	6	No
11	Stricture	Bulbar	Catheter*	U-thomy (1)	40x16	none	none	No	-	6	24	No
12	Stricture	Bulbar	Idiopatic*	U-thomy (2)	40x16	none	UTI	No	-	6	21	No
13	Stricture	Membranous	Catheter*	U-plasty (1)	60x14	none	none	No	-	6	20	No
14	Stricture	Bulbar	Catheter**	U-thomy (3)	40x16	none	none	No	-	6	7	No
15	Stricture	Bulbar	Idiopatic	U-plasty U-thomy	40x16	none	none	No	-	11	6	Yes
16	Fistula	Recto-urethralis	Prostatitis	None	60x16	none	none	No	-	4	15	No
17	Fistula	Recto-urethralis	Prostatitis	None	40x16	none	none	No	-	5	12	No
18	Fistula	Ischial-urethral	Paraplegy	None	40x16	none	none	No	-	6	18	No

Tab.1: pre, intra and post-operative results. * after renal transplant, ** patient with kidney-pancreas transplant with pancreatic exocrine diversion to the bladder. U-thomy: urethrotomy. U-plasty: urethroplasty. SP tube: suprapubic tube. UTI: urinary tract infection

Figure: (abstract: SC64).

incontinence. We described a surgical technique to treat these strictures preserving urinary continence in patients with incompetent bladder neck. The aim of this study was to investigate the clinical outcome of surgical repair of post-TURP sphincter urethral strictures and to report the rate of post-operative urinary continence.

Materials and methods: An observational retrospective descriptive study was conducted on patients affected by post-TURP sphincter urethral strictures, in two centres, from 2002 to 2017. Only fully continent patients after TURP, HOLEP or TUIP who subsequently developed sphincter strictures were included. A positive anamnesis for urethral strictures of different aetiology or incomplete follow up represented exclusion criteria. The primary outcome was treatment failure, defined as the need for any post-operative instrumentation. Secondary outcome was post-urethroplasty urinary continence. Stricture recurrence or postoperative incontinence were classified as failure. Preoperative evaluation consisted of clinical examination, urine culture, post-voiding residual (PVR) volume, retrograde urethrogram, voiding cystourethrogram (VCUG), sonourethrography, urethroscopy. One month after surgery a VCUG was performed and the catheter removed. Follow up visits with uroflowmetry and PVR volume were scheduled every 6 months for at least 1 year. Urinary continence was evaluated in different body position and through patients' reports. In case of incontinence, urodynamics were performed.

Results: Overall, 69 patients who underwent TURP, HOLEP and TUIP were included. Median age was 67 years; median stricture length was 4 cm (range 1–7 cm). Median follow-up was 52 months. Out of 69 patients, 55 (79.7%) were classified as success and 14 (20.3%) as failure. Out of the 14 failures, 11 (78.6%) were due to recurrent strictures, and 3 (21.4%) to post-operative incontinence.

Discussion: To preserve urinary continence in patients with post-TURP sphincter urethral strictures is essential to respect the anatomy of this area during surgery: a full circumferential dissection of the proximal urethra can lead to sphincteric damages and loss of continence. The use of modified ventral onlay graft urethroplasty, adopting non-aggressive steps, is a suitable surgical technique for repair of sphincter urethral stricture in patients who underwent BPH transurethral surgery. This technique provided 79.7% success rate in terms of urethral patency, and 95.6% of post-operative urinary continence.

SC66 Prerectal-Transperineal approach for treatment of recurrent anastomotic strictures after radical prostatectomy

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Aim of the study: We aim to describe a safe reanastomotic procedure for recurrent bladder neck contracture following radical prostatectomy. The prerectal-transperineal approach allows an easier access to the stenotic vesicourethral anastomosis, a better mobilization of the bladder neck and a tension free reanastomosis.

Materials and methods: 12 patients suffering from bladder neck contracture after radical prostatectomy were enrolled between may 2014 and september 2018. All subjects were placed in simple lithotomy position and an inverted-U incision was made 1 cm above the anus. Thus, the incision of the central tendon of the perineum and the gain of the ischiorectal fossae allows direct access to the stenotic anastomosis. Since the bladder neck is easily mobilized and the distal bulbar urethra is isolated (by making a vertical median skin incision)

and a tension free reanastomosis can be performed. The following outcomes were evaluated: intra- and post- operative complications, short to medium term stricture recurrence, and presence of post-operative stress incontinence.
Results: The average operative time was three hours. No major intraoperative and postoperative complications occurred; no significant bleeding was recorded. Patients were discharged after 72 hours. At the time of catheter removal, 3 weeks after surgery, 7/12 patients developed stress urinary incontinence requiring 4 pads/day. Among those, four patients accepted the placement of an artificial sphincter for definitive post-operative incontinence, while one patient refused. Finally, 2 patients, both with a history of pelvic radiotherapy, developed a post-operative surgical site infection with a perineal abscess, that required surgical toilette and a salvage external urinary diversion. One patient developed stricture recurrence, treated with a Sachse procedure before the artificial sphincter could be placed. No patient reported significant postoperative pain and, beside the two patients who had surgical site infection, there were no significant wound problems. No patient reported fecal incontinence after surgery.
Discussion: Compared to the classic perineal access, a prerectal approach allows direct access to the posterior urethra, and the present experience demonstrates its advantage for the treatment of recurrent anastomotic strictures after radical prostatectomy. This technique ensures a good bladder neck mobilization and tension free anastomosis. Nonetheless, all patients need to be informed of post-operative urinary incontinence, which can be managed by artificial sphincter placement. Finally, a specific mention relates to patients with a history of pelvic radiotherapy, for the poor preoperative conditions of the tissues, making it very difficult to heal, therefore, these patients must be informed about the possibility of an external urinary diversion.

SC67 The effect of annual hospital volume on perioperative outcomes after urethroplasty

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Aim of the study: Urethroplasty represents a challenging procedure with high risk of intra- and postoperative complications even when is performed by expert hands (high-volume hospitals). Nevertheless, no study has previously assessed the risk of perioperative complications in relation to the annual hospital volume (AHV).
Materials and methods: In the Nationwide Inpatient Sample, we searched for patients who underwent urethroplasty (primary procedure code 58.4) between 2001 and 2015. Hospitals were categorized into empirically determined tertile, according to AHV of performed urethroplasties. Three groups were identified: low (<3 urethroplasties) volume centers (LVC), intermediate (3–19) volume centers (IVC) and high (>20) volume centers (HVC). We analyzed trends in urethroplasty procedures according to AHV. Multivariable logistic regression (MLR) examined the effect of AHV on intraoperative complications, post-operative complications and transfusion rate. Finally, nine sets of MLRs examined the effect of AHV on nine sub-types of post-operative complications such as gastrointestinal, vascular, neurologic, cardiac, respiratory, haematuria, urinary tract infections, sepsis and wound infections.
Results: We found a weighted estimate of 36773 patients underwent urethroplasty in the US. Of these, 13932 (34.9%) were operated in HVC, 15208 (38.1%) were operated in IVC and 10773 (27%) were operated in LVC. Within the study period, the rate of performed urethroplasties increased in LVC (EAPC: +6%, $p = 0.02$), remained stable in IVC (EAPC: −0.1%, $p = 0.9$) and decreased in HVC (EAPC: −3%, $p = 0.03$). Overall, 456 (1.1%) and 7517 (18.8%) patients respectively experienced intraoperative and post-operative complications, and 843 (2.1%) received transfusions. In MLR, IVC and LVC were associated with higher risk of intraoperative (IVC: Odds ratio [OR] 2.5, $p = 0.01$; LVC: OR 5.1, $p < 0.0001$) and post-operative (IVC: OR 1.2, $p = 0.03$; LVC: OR 1.7, $p < 0.001$) complications. Additionally, LVC was associated with higher risk of transfusions (OR 3.1, $p < 0.001$). Specific subsets of MLR models on post-operative complications showed that LVC was associated with higher risk of gastrointestinal (OR 2.5), cardiac (OR 3.9) and respiratory (OR 2.3) complications despite being adjusted for underlying comorbid illness, as well as of higher risk of haematuria (OR 3.6), urinary tract infections (OR 1.5) and sepsis (OR 2.7). Conversely, IVC was associated only with higher risk of cardiac complications (OR 1.9).
Discussion: This analysis presents a unique look at urethroplasty across the US in relation to AHV. We saw that approximately 65% of patients were operated in IVC and LVC. Moreover, there was a trend toward lower number of urethroplasty in HVC. Additionally, we found that the rates of intra and post-operative complications were considerably higher in LVC and IVC than in HVC. These data provide important indicators for policy makers to provide benchmarks for treatment and to categorize institution based on urethroplasty outcomes.