

Smart Communications (SC61–SC67)

Urethral Surgery

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SC61 Lipofilling: A new surgical technique for treatment of giant female urethral diverticula

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Aim of the study: To report our surgical and functional outcomes after surgical correction of giant female urethral diverticula with lipofilling technique.

Materials and methods: This is retrospective study based on patients treated between 2018 and 2019 with giant symptomatic urethral diverticula. Dysuria, urinary tract infection, pain, dyspareunia, vaginal mass was major symptoms. The diverticula were related to unknown causes in 1 patient and were iatrogenic in the other 2 subjects, after gynecological surgery.

Results: We present our experience with the lipofilling technique which is normally used in plastic surgery by the injection of adipous tissue harvested from the abdomen in order to fill out tissue lack after the excision of diverticula. Three patients were treated. The intervention was based on the following steps : 1) surgical excision of the diverticulum with urethral opening in the site of the diverticulum neck 2) urethroplasty 3) lipoaspiration 4) lipofilling After surgery every patient had an indwelling catheter for 30 days. Patients had a normal return to micturition after the catheter removal with improvement of all their symptoms. The voiding cystourethrography at catheter removal demonstrated a good urethral profile with no evidence of fistula.

Discussion: Since its introduction, lipofilling has become increasingly popular. Several modifications have been made to the procedures of fat harvesting, processing, and injecting. The clinical applications of autologous fat grafting include correction of defects and for augmentation in aesthetic surgery. The complications of lipofilling are minimal and include bruising, swelling, pain, infection, necrosis, and calcification. Autologous fat can be harvested by relatively simple procedure, and it is completely biocompatible and available in large quantities. We use lipofilling to correct perineal defect and to secure the urethroplasty and avoid urethral fistula. Lipofilling is a promising tool that could help in cases of a big lack of tissue also urethral surgery.

It could also be used primarily as an adjunct procedure to implants based reconstruction to optimize the outcomes.

SC62 Management of female urethral strictures

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Aim of the study: After vaginal flap urethroplasty using the ventral approach, ventral labial graft, dorsal vaginal graft and dorsal buccal mucosal graft urethroplasty, success rates ranged between 57.1 to 100% in literature. The data continue to be inadequate to recommend one technique over another, and while it is unlikely that long-term randomized studies will ever be feasible because of the rarity of stricture in women, further reporting of case series will help to clarify which technique is associated with the best long-term outcomes. To report our surgical and functional outcomes for treatment of female urethral stricture (FUS).

Materials and methods: From 2017 to 2018 a total of 16 women underwent urethroplasty for FUS. The cause of US was unknown in 5 patients and iatrogenic in 11 patients. 10 patients with distal US underwent dorsal buccal mucosa graft urethroplasty. Based on recent literature, due to the urethral sphincter three-dimensional reconstructions and the important relationship of the US to the levator ani muscle, we managed the distal urethral stricture with a dorsal urethroplasty and the proximal US with ventral urethroplasty, to avoid incontinence. Six patients with proximal US underwent ventral flap vaginal mucosa urethroplasty. Voiding cystourethrography was made 3 weeks after surgery only in the 6 patients who underwent ventral urethroplasty.

Results: Sixteen women were included and were followed for a mean follow up of 16 (12–28) months. Mean age 45 yrs (range 30 to 65). Mean operative time was 60 min (45–90). All patients restored urinary flow, 4 patients who underwent dorsal buccal mucosa graft urethroplasty had urge incontinence for 3 months, treated conservatively. Voiding cystourethrography was restored in all 6 patients after the

ventral approach but one single patient had fistula at the voiding urethrography.

Discussion: We report very good results for treatment of FUS with the management of the distal urethral stricture with a dorsal urethroplasty and the proximal US with ventral urethroplasty. experience is most appropriate.

SC63 Minimal invasive technique for dorsal female urethroplasty by asopa procedure

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Aim of the study: During the last years, urethral surgery is linked to the concept of urethra-sparing. We present a minimal-invasive technique for female urethroplasty without mobilization of the urethra.

Materials and methods: This is a retrospective study based on female patients affected by medium-distal urethral stricture who underwent urethroplasty between 2017 to 2018. The cause of stricture was undetermined in 5 pts and iatrogenic in 5 others. All patients have undergone multiple urethral dilatations. The preoperative clinical evaluation was based on: medical history, physical examination, urine culture, uroflowmetry (Qmax), voiding cystourethrography or voiding urography. Cystoscopy was executed before surgery to confirm the diagnosis of stenosis and to evaluate the exact position. The surgical procedure was executed in lithotomic position. A sensor guide wire was inserted in the urethra that was incised on the midline in the context of the stricture and inspected using a Gorget tool. The dorsal plate of the urethra was incised and an elliptical raw area was created over the peri-urethral tissue where a free full-thickness graft of buccal mucosa was sutured. A Foley 14 Ch was left in place.

Results: Ten patients were included in the study. Median age was 48 years (range:30–68). Median preoperative Qmax was 10 (range 4–15). In average the operative time was 1 hour. No perioperative complications occurred. Hospital stay was no longer than 2 days. Catheter was removed after 3 weeks without any cystourethrography control because of the low risk of urethral fistulae in absence of urethral mobilization. Four subjects experienced irritative symptoms after catheter removal that was treated conservatively. After the removal of the catheter, all patients were followed up by a series of uroflowmetries (median Qmax 21: range 16–30) with post voiding residual at 30, 60, 90 days. Median postoperative Qmax was 30 ml/s (range 25–42) at 30 days, median Qmax was 28 ml/s (range 24–45) at 60 days, median Qmax was 28 ml/s (range 22–43) at 90 days. In case of dorsal urethral reconstruction without need of urethral dissection, complications such as risk of bleeding, damage to clitoral structures and stress incontinence as well as other neurosensory complications are uncommon with the dorsal repair. In our series none of these problems was identified.

Discussion: The minimal invasive dorsal sagittal urethrotomy approach with dorsal free graft urethroplasty preserves the urethra, avoiding urinary incontinence. This is due to the anatomical distance from the urethral sphincter. Uroflow results suggest good therapeutic results. This experience suggests the feasibility of the technique with high success rates.

SC64 Uventa urethral stents: Are we taking a step forward? the first clinical series

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Aim of the study: Aim of this study is to describe first clinical results of temporary placement of UVENTA urethral stent in the treatment of benign urethral disorders.

Materials and methods: UVENTA urethral Stent (Taewoong Medical) is a temporary self expandable covered metallic stent. A nickel-titanium coil is completely covered by a silicone coat in the inner and in the outer part. Anti-migration system and different radial force distribution are the two main innovations. 4 anchors are located on the distal end of the stent aiming to reduce migration and the radial force is maximum in the center of the stent with progressive reduction on the tips. This is a retrospective evaluation of UVENTA stent placements for urethral diseases (stricture and fistula) in two urological Centers. Success was defined as the lack of stricture on urethroscopy performed with a 16 ch flexible cystoscope 6 months after stent removal and no need for further procedure; in case of urethral fistula the absence of leakage on urethrogram was considered. Patients with at least 6 months of follow-up after stent removal were included.

Results: 18 patients underwent UVENTA stent placement between 2016 and 2018. Pre-, intra- and post-operative data are reported in Tab 1. No specific intraoperative events were recorded. One patient reported urethral pain related to the stent in the first month. Three patients had urinary infection treated with antibiotics. 3 out of 4 stents placed on the bladder neck migrated in the bladder two, three and six months after implantation; none of the other stents migrated. At removal no significant encrustation, stone or tissue ingrowth were noted. New proximal or distal strictures with stent in situ were never noted at stent removal. Migrated stents were removed without any problems. All procedures were easy and quick. Median follow up is 9,5 months (6–24). Considering strictures overall success rate is 73% (11/15): 82% for bulbar urethra (9/11) and 50% for bladder neck (2/4). Urethral fistula was repaired in all cases (3/3).

Discussion: UVENTA urethral stent showed success rate similar to other covered temporary stents in the treatment of recurrent bulbar-membranous urethral strictures in the short-medium follow up. Significant achievements are the absence of migration and damage on healthy mucosa, with no onset of new strictures. Further cases are needed to confirm these results and to explore the effective role in the treatment of vesico-urethral strictures and urethral fistulas.

SC65 Repair of sphincter urethral strictures preserving urinary continence: Surgical technique and outcomes

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Aim of the study: The incidence of urethral stricture after transurethral resection of the prostate (TURP) is estimated to range between 2.2% and 9.8% and can occur in different urethral sites, including proximal bulbar tract in the close proximity to the membranous urethra and the urethral sphincter, which we define as sphincter strictures. Because of their site and the bladder neck compromised by a prior BPH surgery, their surgical repair represents a challenge due to the risk of urinary