Transcorporal Double Cuff Implantation Of RigiCon ContiReflex Is A Solution In High Pressure Post Prostatectomy Incontinence

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Introduction

For severe post-prostatectomy incontinence the artificial sphincters remains gold standard whenever some patients can be cured with slings or cushions. AMS800 has been the flagship over nearby 50 years as a system with a static pressure around the urethra. If the pressure is changing the system has to be exchanged. 12 years ago Zephyr 375 came on the market with the possibility of adjustation, Victo followed with another technique but also adjustibility. There are some patients which have not so very huge urin losses over the day, but they are bothered by losses when coughing, laughing, sneezing, rising up from a seat and so on. Their problem is, that the intravesical pressure is infuenced by the intraabdominal pressure and sometimes they have a wave of overpressure which the cuff with 60 to 100 mBar cannot hold. Victo+ was the first device with a second "stress released balloon" but is - in Germany - not longer available. Since spring 2023 we have now RigiCon ContiReflex (1) available in Germany which has a double balloon with a bypass to the cuff for these overpressure waves. Another problem are severe altered urethrae after previous surgery or irradiation where we implant double-cuffs in a transcorporeal way.

Methods

6 patients were identified to have overpressure incontinence following radical prostatectomy with bladder volumes of 320 to 470 ml. They were dry at night and had daytime losses of 240 to 420 ml. All six had severe urethral problems in their history as reconstructed urethrae or arrosions of former implants.

Four of them had adjuvant irradiation after prostatectomy, and had urethral cuff erosions within their first or second artificial urinary sphincter. Two had no irradiation but severe urethral surgery, one had a buccal mucosa and one had a two-stage-meshgraft-urethroplasty.

Surgery was performed in lithotomy position. The urethra was exposed by a perineal access. Then electrical vertical incisions were made in the tunica albuginea and a way through the cavernous bodies behind the urethra was established. The cavernous bodies are closed by suture of the lateral parts of the incision to prevent hematoma. After measurement of the surrounding of urethra two cuffs were inserted, then connected with the pump and the ContiReflex balloon by a high inguinal incision. Systems are deactivted by a button on the pump and a 12F Foley stays for 2 days. After 6 weeks the systems were activated.

Results

All six patients are feeling dry at day- and nighttime now and within pressure episodes. We tested it with coughing and laughing during our consultation. Patients are completely satisfied. Two are uring one pad to feel safe. But the pads are dry. Follow-up is now 9 months with a range of 2 to 12 months. There are no longtime results on the behave of urethrae.

Interpretation of Results

ContiReflex is another tool to cure postprostatectomy incontinence with high pressure leakage. The static artificial sphincters like AMS800 or Zephyr ZSI475 are the standard for leakages between their pressure ranges. But ContiReflex is the tool for the very short but very high pressures to leak during coughing and other problems. In this small study we showed that ContiReflex is also implantable with two cuffs around the severe pretreated urethrae.

Concluding Message

For a small part of all patients with post-prostatectomy incontinence it is a very good chance to get dry..

References

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2. Wilson SK, Chung E, Langford B, Rees R, Lee D, Schlessinger R, et al. MP03-16 FIRST SAFETY OUTCOMES OF CONTIREFLEX® ARTIFICIAL URINARY SPHINCTER FOR TREATING MALE INCONTINENCE. Journal of Urology [Internet]. 2024 May 1 [cited 2024 Oct 21];211(5S):e29.

Disclosures

Funding none **Clinical Trial** Yes **Public Registry** No **RCT** No **Subjects** Human **Ethics not Req'd** case control study **Helsinki** Yes **Informed Consent** Yes

Illustrations

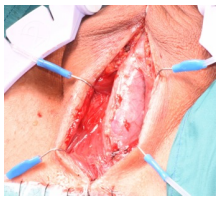

Fig. 1: mobilised bulbar urethra

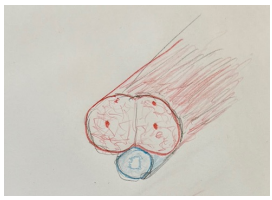

Fig. 2: anatomy

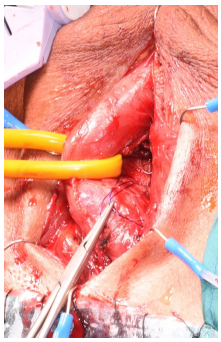

Fig. 4: transcavernous access

Fig. 3: „normal" cuff position

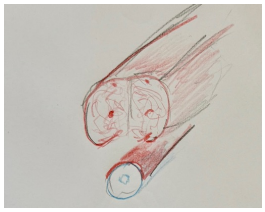

Fig. 5: transcavernous mobilisation

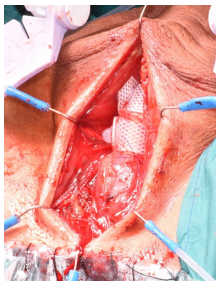

Fig. 6: transcavernous double cuff

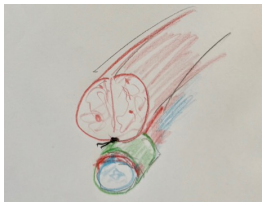

Fig. 7: transcavernous position

Fig. 8: RigiCon ContiReflex ®

Table 1. Size of the Occlusive Cuff		
Occlusive Cuff Size	Number	Percent (%)
3.5 cm	4	8
3.75 cm	6	12
4.00 cm	8	16
4.25 cm	12	24
4.50 cm	7	14
4.75 cm	8	16
5.00 cm	2	4
5.50 cm	3	6

From reference (2)