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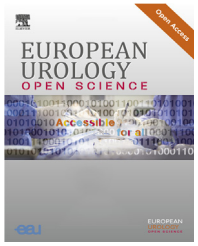

European Association of Urology

Research Letter: Open Science

Exime Temporary Prostatic Stent: A New Alternative to Indwelling Urethral Catheters

Michael Baboudjian [a,b,c,*], *William Berchiche* [a,c], *Marc Fourmarier* [c]

The immediate management of benign prostatic obstruction (BPO)-related acute urinary retention (AUR) involves insertion of an indwelling urethral catheter (IUC) or suprapubic catheter, followed by a trial without catheter (TWOC) [1]. In cases of TWOC failure, urethral recatheterization should be avoided, as it is associated with time-dependent complications and patient discomfort [2,3]. Although clean intermittent catheterization (CIC) is considered the standard of care [4], many limitations have recently emerged, such as patient adherence, cumulative costs, and a high carbon footprint [5]. A new urethral device (Exime; ROCAMED, Signes, France), a prostatic stent made from silicone, has recently been proposed for temporary use (1-mo lifespan) to restore urine flow and allow voluntary voiding in males with AUR. The device is inserted manually during a consultation, without placement of any additional control, and may be a promising solution to the problems associated with IUCs in patients with AUR awaiting BPO surgery. Although increasingly used in European countries, clinical evidence for the Exime device is still lacking. Here we report the first data evaluating the Exime device versus IUC.

Patients were identified from a prospectively maintained single-institution database (2020–2022). The inclusion criteria were men who failed at least one TWOC attempt after AUR/BPO. Men with a prostate volume of up to 120 ml and an intravesical prostatic protrusion of <5 mm on ultrasound were considered eligible. The Exime device was offered to patients who could not or refused to carry out CIC. The device was inserted manually during an outpatient procedure under local anesthesia. The procedure started with urethral calibration using two successive bougies of 22 and 24 Ch, and then the device was introduced into the prostatic urethra. Patients were discharged home after successful voluntary voiding. The device was removed at 1 mo via simple traction on a thread externalized to the penis. The primary endpoint was the effectiveness of the Exime device in restoring urine flow. We also planned to compare side effects and patient preferences between previous IUC and the Exime device; each patient served as their own control.

A total of 25 consecutive patients were included. The median age was 87 yr (interquartile range [IQR] 79–92) and median prostate volume was 49 ml (IQR 40–65); 23 patients (92%) had a history of lower urinary tract symptoms/BPO treated with α-blockers. The Exime device was successfully inserted in 24 cases (96%). These patients had spontaneous voiding with a median postvoid residual volume of 45 cm^3 (IQR 35–62). In comparison to the IUC (Table 1), the Exime device was significantly associated with lower rates of patient-reported bladder spasm ($p < 0.001$), urine leakage ($p = 0.02$), urinary tract infection ($p < 0.001$), and pain ($p < 0.001$). When we asked patients about their preferences, 21 (84%) preferred the Exime device and four patients (16%) preferred the IUC. At 1 mo, the Exime device was still retained in 18 patients, representing a success rate of 72% (3 obstructions, 3 migrations).

This first report demonstrates that the Exime device is a promising solution to the problems associated with IUC in patients with AUR/BPO. The procedure was feasible, well tolerated, and associated with lower rates of catheter-related complications. Further studies are awaited to evaluate the place of this device in relation to CIC, the current standard.

* Corresponding author. Department of Urology, La Conception Hospital, Marseille, France. Tel. +33 625 314029.
E-mail address: michael.baboudjian@outlook.fr (M. Baboudjian).

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Table 1 – Comparison of side effects and patient preferences for an IUC versus the Exime urethral device

Parameter	IUC (n = 25)	Exime device (n = 24)	p value [a]
Hematuria, n (%)	14 (56)	13 (54)	>0.9
Urinary tract infection (person-years)	10.9	1.4	<0.001
Bladder spasms, n (%)	21 (84)	3 (13)	<0.001
Urinary leakage, n (%)	6 (24)	0	0.02
Median VAS pain score (interquartile range) [b]	8 (7–8)	1 (1–2)	<0.001
Median VAS patient satisfaction score (interquartile range) [c]	2 (1–4)	8 (8–9)	<0.001

IUC = indwelling urethral catheter; VAS = Visual Analog Scale.
Continuous variables were reported as medians and interquartile ranges (IQRs).
[a] Categorical variables were compared using Fisher's exact test. A p value of <0.05 was considered statistically significant.
[b] VAS ranges from 0 = no pain, to 10 = worst pain.
[c] VAS ranges from 0 = not at all satisfied, to 10 = perfectly satisfied.

Conflicts of interest: The authors have nothing to disclose.

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[a] *Department of Urology, North Hospital, Aix-Marseille University, AP-HM, Marseille, France*
[b] *Department of Urology, La Conception Hospital, Aix-Marseille University, AP-HM, Marseille, France*
[c] *Department of Urology, CH Aix-Pertuis, Aix en Provence, France*

* Corresponding author. Department of Urology, La Conception Hospital, Marseille, France. Tel. +33 625 314029.
E-mail address: michael.baboudjian@outlook.fr (M. Baboudjian).