



Transurethral Water Vapour Thermal Therapy (REZUM) Under Pure Local Anaesthesia for Acute Urinary Retention

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Objective:

To evaluate the safety and efficacy of REZUM therapy under pure local-anaesthesia (LA) for Asian patients with BPH complicated by AROU.

Materials and methods:

Between June 2020 and July 2022, 55 Asian patients with AROU secondary to BPH were treated with REZUM under LA. They would be discharged same day with urinary-catheter, re-admitted for trial without catheter (TWOC), and followed-up 3 months post-operatively.

Results:

Median age was 75-year-old (IQR:68-72). 80% of patients required urinary-catheter preoperatively. Median operation time was 25 minutes (IQR:20.0-28.0) with a median of 6 cycles (IQR:5-7) per-session. All patients were discharged same day. Median follow-up time was 171 days (IQR:73-310). All patients had successful TWOC within 90 days; 30-days-TWOC rate was 78.2%. Median TWOC time was 14 days (IQR:10-30). Mean prostatic volume reduction was 19.7%. One patient had post-operative fever, subsided spontaneously. Eight patients had unplanned re-admission within 30 days post-operatively, including five cases of haematuria and three cases of recurrent AROU. All cases of recurrent AROU subsequently underwent successful TWOC within 14 days. Two patients reported urinary incontinence on follow-up.

Conclusion:

REZUM is a safe and effective treatment for AROU. Performing REZUM in office-based setting under pure LA reduces in-hospital stay and risk of general-anaesthesia.

	Overall (N=55)	On Catheter (N=44)	Catheter-free (N=11)
Median TWOC days	14 (IQR: 10-30)	16 (IQR: 14-30)	7 (IQR: 7-21)
TWOC rates			
Within 10 days	25.5% (14/55)	13.6% (6/44)	72.7% (8/11)
Within 14 days	50.9% (28/55)	45.5% (20/44)	72.7% (8/11)
Within 30 days	78.2% (43/55)	75.0% (33/44)	90.1% (10/11)
Within 45 days	90.9% (50/55)	88.6% (39/44)	100% (11/11)
Within 60 days	94.5% (52/55)	93.2% (41/44)	
Within 90 days	100% (55/55)	100% (44/44)	

Figure 1. Post-operative TWOC rates stratified by time period.

	Mean prostatic volume reduction	95%CI	P-value
Overall (N=27)	19.2%	12.9-25.3	p<0.001
On-catheter (N=22)	22.9%	15.9-29.8	p<0.001
Catheter-free (N=5)	5.0%	-5.2-15.4	p=1.3

Figure 2. Post-operative mean prostatic volume reduction.

Safety profile	Incidence	Remarks
Post-op hospital stay	0/55	
Immediate post-operative complication		
Post-operative fever	1/55	Spontaneously subsided
Unplanned admission within 30 days		
Haematuria	5/55	Light haematuria
Recurrent AROU	3/55	All TWOC within 14 days
Late complication		Median FU: 171 days
De novo erectile dysfunction	0/55	
Retrograde ejaculation	0/55	
Urinary incontinence	2/55	Both transient SUI

Figure 3. Safety profile of REZUM therapy.

