

Differentiate urinary diversion tactics in the comprehensive management of encrusted cystitis

AIM
Evaluate treatment effectiveness and develop a differentiated strategy for encrusted cystitis based on the extent of bladder mucosal involvement.

METHODS
Retrospective study (2006–2024), 59 patients with confirmed encrusted cystitis. Work-up: urinalysis/culture, urine pH, ultrasound, cystoscopy and CT. Treatment combined TUR, antibiotics, urine acidification, bladder instillations and urinary diversion when indicated.

TREATMENT STRATEGY BY LESION AREA

≤10 cm ²	TUR + basic therapy Limited lesion
10–40 cm ²	TUR + percutaneous cystostomy Bladder neck involvement / frequent recurrence
>40 cm ²	Bilateral nephrostomy + repeated TUR Extensive or total mucosal involvement

CLINICAL RATIONALE
Urinary diversion provides “functional rest”, reducing contact with infected alkaline urine after debridement and supporting mucosal healing.

RESULTS

36 complete recoveries after initial surgery + basic therapy	23 patients developed recurrence
18 recurrent cases required cystostomy	5 extensive cases required bilateral nephrostomy

KEY FINDINGS
Mean drainage period: 37 days.
85% had alkaline urine (pH 7–9).
Treatment effectiveness was directly associated with lesion area.

INTERPRETATION
TUR alone does not eliminate the alkaline urinary environment and bacterial biofilm that promote recurrent salt precipitation. In recurrent or extensive disease, diversion interrupts this cycle and creates conditions for epithelial recovery.

CONCLUSION
Effective management requires a multimodal, lesion-area-based approach. Adding urinary diversion for recurrent or extensive disease was associated with stable remission and helped avoid more radical interventions.