Ureteroscopy and pneumatic lithotripsy, followed by extracorporeal shock wave lithotripsy for treatment of distal ureteral stones.

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BACKGROUND: We retrospectively reviewed our experience with retrograde ureteroscopy (URS) and a pneumatic lithotriptor in 160 patients with distal ureteral stones to determine whether prior extracorporeal shock wave lithotripsy (ESWL) is a limiting factor in the ureteroscopic procedure.

METHODS: From January 1999 to September 2000, we performed URS and pneumatic lithotripsy in 160 patients with distal ureteral stones. Seventy-four patients were treated with URS primarily (Group 1), while the remaining 86 patients received URS only after ESWL had failed (Group 2). For URS and lithotripsy, we used 9.5 French rigid instrument and VIBROLITH (Elmed, Ankara, Turkey).

RESULTS: In Group 1, 73 of 74 patients (98.6%) were treated successfully by URS alone, as were 81 of 86 patients (94.4%) in Group 2. Impacted stones were also observed in 17 patients from Group 2. In these patients, endoscopic observation revealed edematous inflammation above and below the calculus. Ureteral perforation occurred in one patient from Group 2, which required surgical repair. There was no significant difference in the stone-free rates of the two groups t=1.4 < 1.96t (infinity, 0.05)

CONCLUSION: Our data demonstrate that when ESWL fails, URS and pneumatic lithotripsy also seems to be an effective treatment modality for impacted stones.