P025 Clinical experience with semirigid ureteroscopy, flexible ureteroscopy, and shock wave lithotripsy for initial treatment of 11–20-mm proximal ureteral stones

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Introduction & Objectives: We aimed to retrospectively evaluate the effectiveness and safety of flexible ureteroscopy (fURS), semirigid ureteroscopy (sr-URS), and shock wave lithotripsy (SWL) to treat single 11–20mm stones in the proximal ureter.

Materials & Methods: Patients treated at our clinic for 11–20-mm single stones in the proximal ureter who underwent fURS, sr-URS or SWL as initial lithotripsy methods were compared in terms of their demographic and clinical characteristics.

Results: A comparison among 201 patients who had undergone f-URS, 119 patients who had undergone sr-URS, and 162 patients who had undergone SWL showed no significant baseline differences in patients' demographic and stone characteristics. Stone-free rates on the 15th day and 3rd month were higher with f-URS (89.6% and 97%, respectively) than with sr-URS (67.2% and 94.1%, respectively) and SWL (41.4% and 79.0%, respectively; all $p<0.001$). Retreatment rates were significantly higher with SWL than with the other two modalities ($p<0.001$); auxiliary procedure rates were significantly lower with f-URS than with the other two modalities ($p<0.001$). Treatment-related complication rate at the end of the 3rd month was lower with f-URS than with SWL ($p=0.022$). Furthermore, f-URS was more effective than sr-URS for treating impacted stones.

Conclusions: We found that f-URS was highly successful as an initial lithotripsy procedure for medium-sized proximal ureteral stones, and it helped achieve early stone-free outcomes with a lower need for retreatment and auxiliary procedures, lower complication rates, and higher effectiveness on the impacted stones compared with sr-URS and SWL.