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571 Evaluating the Effectiveness of Extracorporeal Shockwave Lithotripsy (ESWL) for Ureteric Stones During COVID-19 Pandemic - A Single Centre Experience

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Aim: Reliance on ESWL for treating ureteric stone has increased during the COVID-19 pandemic. We examined the outcomes for ureteric stones treated with our on-site lithotripter to assess the success rate and determine the variables that could affect the outcome results.

Method: A retrospective review using electronic records and images of patients who underwent ESWL for ureteric stones (January to December 2020). Univariate and multivariate analysis used to determine stone-free rate predictors (Stone Free rate/SFR: No residual stones on post-ESWL imaging).

Results: A total of 36 patients underwent ESWL for ureteric stones. Mean age was 58 years (21–90), and mean stone size was 8 mm (5–20). Stones were located in the proximal (67%) or lower ureter (33%). Overall SFR was 64% (67% proximal, 33% distal). 64% of patients required only one session to be stone free, with 60% stone free after two sessions. Stones <10mm had a SFR of 67%, compared to 58% for stone >10 mm. The only statistically significant predictor was stone size (longest dimension, $p=0.04$). No statistical significance with stone location ($P=0.09$), skin-to-stone distance (SSD) ($P=0.7$), stone density ($P=0.3$) or stone volume ($P=0.3$). In treatment failure, time to definitive ureteroscopy was 4 weeks.

Conclusion: Our overall SFR was slightly lower than expected but comparable to available literature. This data highlights the importance of patient selection for ESWL and would be useful in counselling about local success rate. More than half of the patients required only one session for stone clearance and stone size was the only significant predictor for successful ESWL.