Extracorporeal shock wave lithotripsy as a first-line therapy for ureteral calculi with impaired renal function due to hydronephrosis

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In their recent article on extracorporeal shock wave lithotripsy (ESWL) as a first-line single therapy for obstructive ureteral stones, Chiara and colleagues indicated that ESWL is an effective therapy for obstructive ureteral calculi, varying degrees of hydronephrosis, and impaired renal function [1]. The present article adds further support to the feasibility and safety of ESWL for calculus clearance and recovery of renal function [1]. It is evident that ESWL has become standardized and can guarantee acceptable perioperative morbidity, yielding reproducible results for treatment of ureteral calculi. Although some authors consider that ESWL is clearly indicated in the presence of hydronephrosis, others consider hydronephrosis to be an indicator of successful outcome after ESWL. Consistent with the findings of Chiara et al., El-Assmy et al. [2] found that the degree of urinary obstruction caused by calculus did not affect the success of calculus clearance. However, a tendency for repeat treatment and a prolonged period for stone clearance were associated with the degree of hydronephrosis [2]. Chang et al. conducted a prospective, randomized study of patients with hydronephrosis whose stones were located above the level of L5 [3]. They reported that hydronephrosis had a major impact on the outcome of ESWL, because more stone-free patients were found among those with mild, than among those with severe, hydronephrosis, and ancillary procedures were needed in 16.9% of all patients [3]. Although ESWL has certain limitations, its indications are expanding and now

include all types of urinary tract calculi. Deliveliotis et al. evaluated the use of ESWL in patients with impacted ureteral stones that had remained in the same location for at least 2 months, and found that 85.7% were rendered stone-free without the need for an open procedure, concluding that ESWL should be attempted as an initial approach for the treatment of impacted stones [4]. The use of ESWL, which is minimally invasive compared any other surgical method known currently, should be promoted whenever possible for patients with ureteral stones.

References

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