# Editorial

## RIRS (Retrograde Intra Renal Surgery)

Urology is one of the rapidly growing subjects in medical science. With the development of anesthesiology as well as bioengineering technologies Urology and Cardiology are now become the most advanced subjects. Technologies for urological procedures developed jointly by medical personnel and engineers are appreciated in all over the world. We, as Urologists would like to acknowledge the contributions of engineers in the development of high-tech urological procedures.

Stone management in urinary system is a very challenging issue in our country like other countries in the globe. PCNL (per cutaneous nephrolithotripsy), ESWL (extra corporeal shock wave lithotripsy), URS+ICPL (uretero renoscopy + intracorporeal pneumatic lithotripsy), laparoscopic urological procedures, are some well known practicing procedures in our country. At present less than 10% kidney related stone problems need open surgical procedures. Ninety per cent of such problems can be managed with high-tech procedures. PCNL is the most practicing procedures at home and abroad for bigger sized kidney stones. In PCNL, puncture of skin and kidney cannot be avoided. The good news is no puncture of skin and kidney is required in newly developed RIRS procedure. Retrograde intrarenal surgery (RIRS) performed using a flexible ureterorenoscope marked the beginning of a new era in urology. The approach attracted a great deal of attention and it was suggested that larger stones could also be treated, albeit over longer operative times which is associated with fewer complications and less morbidity. And whatever the size of kidney stone it could be cleared through per urethral procedure. Technological progress has evolved retrograde intrarenal surgery (RIRS) into a safe and efficacious modality for the treatment of the upper urinary tract and has expanded its potential indications to intrarenal large stones (>25 mm), shock wave lithotripsy (SWL) failure, infundibular stenosis, morbid obesity, renoureteral malformations, musculoskeletal deformities, and bleeding. The development of flexible ureteroscopes and accessory instrumentation like guidewires, ureteral access sheaths, intracorporeal lithotriptors and stone retrieval baskets has facilitated RIRS and has given more safety to the procedure. Safety and efficacy of RIRS has also been confirmed in children. Thus, RIRS potentially may become first-line treatment for intrarenal stones.

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