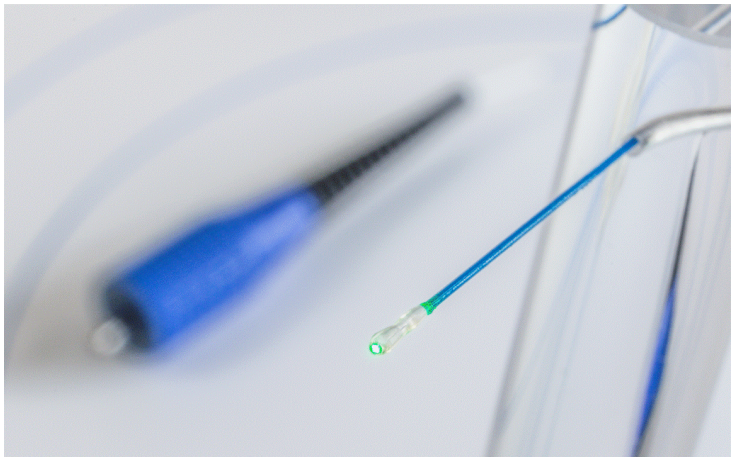
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Holium Laser in Urology

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Surgical treatment of Kidney stones has seen many revolutionized treatment approaches over the years.



After 5 years of extensive training in Urology, I have been in clinical practice for nearly 25 years. During and after training, we have witnessed many significant changes in the practice of Urology for good.

Urology as a super-speciality, is more than 100 years old surgical branch. Diseases of urinary system requiring surgical treatment are prevalent across the caste, creed and race. Urinary stone disease is one of the common ailments and needs specialists' attention.

Surgical treatment of Kidney stones has seen many revolutionized treatment approaches over the years. Use of Holmium YAG laser, one of the most versatile energy source became popular from late nineties in endoscopic surgical procedure. High power Holmium YAG laser was widely promoted for Ablation and Enucleation of Prostate gland. As Holmium YAG laser is a pulsed laser, which can be transmitted via thin quartz fiber, it was possible to use through the flexible endoscope. To enter the kidney through natural orifice and most tortuous tract, one needs flexible endoscope. Once we reach the corners of kidney filled with stone, we need powerful energy like Holmium YAG laser to pulverize these stones. Majority of Kidney stones are made up of Calcium and Oxalate salts. Holmium laser even in low power setting can break any stone. Newer machines with "Moses technology " with special energy settings can now pulverize these stones in powder/dust form, which easily clears up after the endoscopic procedure.

I started using Holmium YAG laser in my practice from 2002 onwards. It was strongly believed that, one needs high power laser for Prostate surgery and low power Holmium laser for Stone removal. Laser was used only for smaller stones. Big kidney stones needed puncture in the kidney via flank (Key Hole Surgery). To remove bigger (>20 mm) stones from the kidney, finger size endoscope through the puncture site is routinely used. Soon we realized that, High power Holmium laser can also be used through smaller endoscope and size of the puncture became really very small, known as MIP (Minimally Invasive Percutaneous Surgery) for kidney stones. This actually reduces pain and many complications of keyhole surgery for kidney stones. Now, for last 7 years, with the help of High power Holmium Laser, I have switched over to MIP for any size of Kidney stones for keyhole surgery. This has made keyhole kidney stone surgery safer and recovery is faster.

Prostate enlargement in males is very common in elderly population. Symptoms of Enlarged Prostate are likely to worsen with age and also associated with many other co-morbidities like Heart diseases, Hypertension or Diabetes. Endoscopic surgery of the Prostate needs powerful energy source like Holmium Laser. Removal of Prostate can be achieved by cutting it in pieces, scooping out in big chunks or by simple vaporization. One has to learn the art of Enucleation (Scooping out) of bigger chunks of Prostate tissue by Holmium Laser from its blood vessels rich bed. But, with some practice and patience, one can always learn new technique, which has huge advantage, especially in debilitating elderly patients with co-morbidity. Holmium Laser for Prostatic surgery has now found its real place due to its wide spread use.

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