

## **Surgical Expertise and Procedural Proficiency**

Dr. Arunkumar Sengottaiyan possesses extensive experience in performing a wide array of advanced urological procedures, demonstrating exceptional surgical skill and precision in both minimally invasive and open techniques. His expertise encompasses the following key interventions:

### **Endourological and Minimally Invasive Procedures**

- **Ureteroscopic Lithotripsy (URSL) with DJ Stenting:** Specialized in the management of ureteral calculi using laser or pneumatic lithotripsy, ensuring stone fragmentation and safe retrieval, complemented by double-J (DJ) stenting to maintain ureteral patency.
- **Retrograde Intrarenal Surgery (RIRS):** Proficient in treating renal stones through flexible ureteroscopy and laser lithotripsy, offering a minimally invasive alternative with reduced patient morbidity.
- **Transurethral Resection of the Prostate (TURP):** Expertise in managing benign prostatic hyperplasia (BPH) via endoscopic resection, providing symptomatic relief and improved urinary flow.
- **Transurethral Resection of Bladder Tumor (TURBT):** Skilled in the diagnostic and therapeutic resection of bladder tumors, ensuring accurate staging and treatment of urothelial malignancies.

### **Percutaneous and Laparoscopic Interventions**

- **Percutaneous Nephrolithotomy (PCNL) and Mini-PCNL:** Highly trained in accessing renal calculi through percutaneous tracts, utilizing nephroscopy for large or complex stone burdens, with miniaturized techniques (Mini-PCNL) to minimize tissue trauma.
- **Nephrectomy (Open/Laparoscopic):** Competent in performing both partial and radical nephrectomies for renal tumors, non-functioning kidneys, or severe infections, employing laparoscopic techniques for enhanced recovery.
- **Pyeloplasty (Open/Laparoscopic):** Expertise in correcting ureteropelvic junction (UPJ) obstruction through dismembered or robotic-assisted techniques, restoring normal renal drainage.

### **Reconstructive and Functional Urological Surgeries**

- **Urethrotomy (Optical/Internal):** Proficient in treating urethral strictures via endoscopic incision, ensuring restoration of normal urinary flow.
- **Urethroplasty (Anastomotic/Graft):** Specialized in definitive stricture management using buccal mucosal grafts or primary anastomosis, offering durable solutions for complex urethral pathologies.
- **Vesicovaginal Fistula (VVF) Repair:** Experienced in transabdominal or vaginal approaches to close abnormal communications between the bladder and vagina, addressing urinary incontinence post-obstetric or surgical trauma.
- **Ureterovaginal Fistula (UVF) Repair (Boari Flap):** Expertise in reconstructing ureteral defects using bladder flaps (Boari flap) or ureteral reimplantation, ensuring continuity of the urinary tract.

### **Vascular Access Procedures**

- **Arteriovenous (AV) Fistula Creation:** Skilled in surgical vascular access formation for hemodialysis, ensuring optimal functionality for renal failure patients.