# Urology | Andrology

# **Urology Treatments**

#### 1. Treatment of Kidney Disorders

## • Kidney Stones:

- Medications for small stones (e.g., alpha-blockers).
- Minimally invasive procedures:
  - Extracorporeal Shock Wave Lithotripsy (ESWL).
  - Ureteroscopy with laser lithotripsy.
  - Percutaneous Nephrolithotomy (PCNL).

## • Chronic Kidney Disease (CKD):

- o Conservative management.
- Dialysis or referral for kidney transplantation.

#### Kidney Infections (Pyelonephritis):

Antibiotics and supportive care.

#### • Kidney Cancer:

- o Partial or total nephrectomy.
- o Ablative therapies (e.g., cryoablation, radiofrequency ablation).

## 2. Bladder Disorders

## • Overactive Bladder (OAB):

- o Medications (anticholinergics, beta-3 agonists).
- Botox injections or sacral nerve modulation.

## • Urinary Tract Infections (UTIs):

o Antibiotics and preventive measures.

## • Bladder Stones:

Cystoscopy with stone removal.

#### • Bladder Cancer:

- Transurethral Resection of Bladder Tumors (TURBT).
- Radical cystectomy.

## • Urinary Incontinence:

Pelvic floor exercises, medications, or surgical interventions (e.g., sling procedures).

#### 3. Prostate Disorders

## • Benign Prostatic Hyperplasia (BPH):

- o Medications (alpha-blockers, 5-alpha-reductase inhibitors).
- Minimally invasive surgeries:
  - Transurethral Resection of the Prostate (TURP).
  - Greenlight laser therapy.
  - Urolift procedure.

#### Prostate Cancer:

- o Active surveillance or prostatectomy.
- o Radiation therapy, hormonal therapy, or chemotherapy.

#### Prostatitis:

o Antibiotics, anti-inflammatories, or alpha-blockers.

## 4. Urological Infections

- **UTIs:** Antibiotic therapy.
- Epididymitis and Orchitis: Antibiotics and anti-inflammatory medications.
- Fournier's Gangrene: Emergency surgical debridement and antibiotics.

## **5. Urinary Tract Obstructions**

#### • Ureteral Strictures:

o Ureteral stent placement or surgical repair.

#### Hydronephrosis:

o Percutaneous nephrostomy or pyeloplasty.

# **6. Treatment for Genitourinary Cancers**

# • Kidney, Bladder, Prostate, and Testicular Cancers:

o Surgical resection, chemotherapy, radiation therapy, or immunotherapy.

#### Penile Cancer:

o Partial or total penectomy with lymph node dissection.

## 7. Pediatric Urology

- Hypospadias Repair.
- **Vesicoureteral Reflux (VUR):** Endoscopic injection or ureteral reimplantation.
- Posterior Urethral Valves: Ablation using endoscopy.

#### 8. Urethral Conditions

- **Urethral Strictures:** Dilation, stenting, or urethroplasty.
- **Urethritis:** Antibiotics for infectious causes.

## 9. Management of Erectile Dysfunction

- Vacuum erection devices.
- Penile implants or vascular surgeries.

# **Andrology Treatments**

#### 1. Male Infertility

- Hormonal Therapy: For conditions like hypogonadism.
- Surgical Treatments:
  - o Varicocelectomy for varicocele.
  - o Vasovasostomy or Vasoepididymostomy for vasectomy reversal.
  - o Testicular sperm extraction (TESE) or micro-TESE for azoospermia.

## Assisted Reproductive Technologies (ART):

- o Intrauterine Insemination (IUI).
- o In Vitro Fertilization (IVF) with Intracytoplasmic Sperm Injection (ICSI).

## 2. Erectile Dysfunction (ED)

- Medications: PDE5 inhibitors (e.g., sildenafil, tadalafil).
- Injection Therapy: Intracavernosal injections of alprostadil.

#### 3. Premature Ejaculation

- Medications: SSRIs, topical anesthetics.
- Behavioral therapy or pelvic floor exercises.

## 4. Peyronie's Disease

• Oral medications, injectable collagenase, or surgical correction.

#### 5. Hypogonadism (Low Testosterone Levels)

• Testosterone replacement therapy (TRT) via gels, injections, or patches.

## 6. Scrotal and Testicular Conditions

- **Hydrocele:** Surgical repair (hydrocelectomy).
- **Varicocele:** Surgical or embolization treatment.
- **Testicular Torsion:** Emergency detorsion and fixation (orchiopexy).

• Epididymal Cysts or Spermatocele: Excision.

## 7. Penile Disorders

- Phimosis and Paraphimosis:
  - o Circumcision or preputioplasty.
- Penile Implants and Prostheses: For structural or functional issues.
  - 8. Androgenetic Alopecia (Male Pattern Baldness)
- Medications: Minoxidil, finasteride.
- Hair transplant surgery.

## **Advanced and Minimally Invasive Procedures in Urology and Andrology**

- **Robotic-Assisted Surgeries:** For prostatectomy, nephrectomy, and ureteral reconstruction.
- Laparoscopic Surgeries: For minimally invasive treatment of various conditions.
- **Endoscopic Procedures:** For diagnosis and treatment of ureteral or bladder disorders.