

Pediatric Urological Interventions: Current Practices

Introduction

Pediatric urology has witnessed a paradigm shift from open surgeries to minimally invasive interventional procedures. These techniques aim to reduce morbidity while preserving renal and urinary tract function in children [1].

Interventional Approaches

Endoscopic injection therapy for vesicoureteral reflux (VUR) has become an established alternative to ureteric reimplantation, offering high success rates with minimal complications [2]. Ureteroscopic lithotripsy is now widely practiced for urinary stones, reducing the need for open surgery. Percutaneous nephrolithotomy is also being increasingly adopted for large renal stones [3].

Laparoscopic and robotic-assisted interventions have further broadened the scope, particularly for ureteropelvic junction obstruction and bladder reconstruction [4].

Challenges and Opportunities

Limited availability of pediatric-specific instruments and high costs are barriers in India. However, innovations such as

miniaturized endoscopes and indigenous device development are helping overcome these challenges. Expanding robotic surgery training programs may further strengthen this field [5].

Conclusion

Pediatric interventional urology offers minimally invasive, effective solutions for complex urological problems. With advancements in technology and training, it holds great promise for improving pediatric urological care in India.

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