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Penile filler augmentation in malleable penile prosthesis patients: feasibility, outcomes, and patient satisfaction

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Aim: To evaluate the feasibility, surgical outcomes, patient satisfaction, and quality of life (QoL) following penile girth enhancement with injectable fillers in patients with malleable penile prostheses.
Methods: This retrospective study included 8 male patients with pre-existing malleable penile prostheses who underwent hyaluronic acid (HA) augmentation (Starfill, Aventa). HA was injected into the subcoronal/mid-shaft subdermal space via blunt cannula under local anesthesia. Feasibility was assessed by successful procedure completion without immediate complications. Surgical outcomes included objective penile girth measurements pre-procedure and at 3, 6, and 12 months. Adverse events were recorded over 1-year follow-up. Patient satisfaction was evaluated using a 5-point Likert scale via custom questionnaire at 3, 6, and 12 months. QoL was assessed using the validated Quality of Life and Sexuality with Penile Prosthesis (QoLSPP) questionnaire pre-procedure and at 3, 6, and 12 months. Paired t-tests analyzed changes in girth and QoLSPP scores ($P < 0.05$).
Results: All 8 patients successfully underwent the procedure (mean operative time: 15 ± 3 min), demonstrating feasibility with no significant complications. Mean penile girth significantly increased from 7.5 ± 0.9 cm pre-injection to 10.0 ± 0.8 cm immediately post-injection, sustained over 1 year. Patient satisfaction was high, with 6 of 8 patients (75%) satisfied at 12 months; 2 patients (25%) required a second injection. The mean total QoLSPP score significantly increased from 64 pre-injection to 71 at 12 months. Significant improvements were noted in Social (10 to 13, $P < 0.05$) and Personal (14 to 18, $P < 0.05$) QoL SPP domains; Functional and relational domains remained stable.
Conclusion: Penile girth enhancement with HA is a feasible and safe procedure for malleable penile prosthesis patients, showing significant, sustained girth increase and minimal complications. It leads to high patient satisfaction and improved QoL, particularly in social and personal domains, suggesting it is a valuable adjunct for optimizing outcomes.

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A novel combined laparoscopic and transurethral resection technique for urachal adenocarcinoma: a case report and technique description

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Introduction: Urachal adenocarcinoma is a rare malignancy representing a small percentage of all bladder adenocarcinomas. While open surgery with partial cystectomy and en bloc resection of the umbilicus remains the gold standard, minimally invasive approaches are gaining traction.
Aim: This report presents a novel combined laparoscopic and transurethral resection technique for urachal carcinoma, detailing its feasibility, minimal morbidity, and long-term outcomes.
Case presentation and technique description: We describe the case of a 60-year-old male who presented with frank hematuria and was found to have a 1.5 cm domal bladder mass, later confirmed as urachal adenocarcinoma. The patient underwent a combined laparoscopic and transurethral resection, wherein the tumor was first resected transurethrally with laparoscopic monitoring, followed by laparoscopic dissection along the urachal tract. The bladder was then repaired laparoscopically. This approach allowed for complete tumor resection with clear surgical margins and minimal blood loss. The patient experienced no postoperative complications and demonstrated no evidence of recurrence after 12 years of follow-up. A review of the existing literature highlights the diverse clinical presentations of urachal adenocarcinoma, the lack of a standardized staging system, and the evolving role of minimally invasive surgery.
Conclusion: While open surgery remains the preferred approach in many cases, our experience, along with other emerging evidence, suggests that a combined laparoscopic and transurethral resection can be a safe and effective alternative for selected patients. This technique warrants further investigation in larger studies to confirm its long-term oncological efficacy.

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Navigating the altered anatomy: surgical challenges and clinical outcomes of robotic radical prostatectomy following TURP or HoLEP

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Aim: To evaluate the surgical challenges, oncological outcomes, and functional outcomes of robotic radical prostatectomy in patients with a history of prior transurethral resection of the prostate (TURP) or holmium laser enucleation of the prostate (HoLEP) compared to a control group who had no previous TURP or HoLEP.
Methods: This ongoing study at Lausitzer Seenland Klinik (Hoyerswerda, 2022-2024) includes preliminary RARP cases for localized prostate cancer. Patients were divided into two groups: prior TURP/HoLEP, and a control group without prior BPH procedures. Data collected included demographics, PSA, Gleason score, staging, operative details (time, blood loss), hospital stay, and complications (Clavien-Dindo). Oncological outcomes (positive surgical margins, biochemical recurrence-free survival) and functional outcomes (urinary continence via pad use, erectile function via IIEF-5) were evaluated at 3, 6, and 12 months.
Results: A total of 15 patients were included in the study: 6 in the prior TURP/HoLEP group and 9 in the control group. Operative time was significantly longer and estimated blood loss was significantly more in the prior TURP/HoLEP group compared to the control group. Postoperative complications were comparable between the groups. Positive surgical margin rates did not differ significantly, and biochemical recurrence-free survival was comparable after one year of follow-up Regarding functional outcomes, urinary continence rates at 3 months were significantly lower in Group1. Continence rates improved at 12 months but remained statistically significant. Erectile function recovery was also delayed in the prior TURP/HoLEP group, with a statistically significantly lower rate of potency after 1 year.
Conclusion: Robotic radical prostatectomy in patients with a history of TURP or HoLEP presents increased surgical complexity, evidenced by longer operative times. Functional outcomes, particularly early urinary continence and erectile function recovery, are significantly impacted.

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Atypical clinical manifestation, diagnostic challenges, and therapeutic dilemma of an unusual case report of Zinner syndrome

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Introduction: Zinner syndrome is a very rare anomaly, which is associated with an embryologic abnormality that develops in the distal portion of the mesonephric or Wolffian duct between the 4th and 13th gestational week. Incomplete migration of the ureteric bud from the proximal portion of the mesonephric duct may also result in a failure to meet with the metanephros. This failure interferes with the ureteric bud, and ipsilateral renal agenesis will occur, in addition to atresia of the ejaculatory duct. This leads to unsatisfactory drainage, subsequent distension of the seminal vesicle, and creation of a cystic structure.
Material & methods: Randomized case study.
Results: We present the case of a 23-year-old male who presented to the emergency department with irritative lower urinary tract symptom (LUTS) in form offrequency, dysuria and perineal pain. His history was significant for recurent urinary. Physical exam revealed suprabupic pain, but was otherwise unremarkable. Ultrasound studies in different centers initially showed not visualized RT kidney. Imaging studies, including non-contrast computed tomography of the urinary tract (CTUT), renal DTPA, pelvic magnetic resonance imaging (MRI) which showed abcsence of RT kidney pelvic cystic lesion may be uretrocele and transrectal ultrasound (TRUS) which showed we did DX cystoscopy and transurethral deroofing lateral to verumontanum at site of rt ejaculatory duct with gush of semuinal fluid.
Conclusion: This case highlights the atypical clinical presentation, diagnostic challenges, and complex management considerations associated. Clinicians should maintain a high index of suspicion for this rare complication, as delayed diagnosis can lead to significant morbidity. Prompt recognition through comprehensive evaluation and timely intervention is crucial for optimal patient outcomes.

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A narrative review of the evolving role of robotic surgery in pediatrics: innovations and future prospects

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Introduction: Robotic surgery has emerged as a transformative approach in pediatric surgical practice, offering increased precision, minimized complication rates, and improved postoperative outcomes. Initially developed for adult procedures, technological advancements have enabled its adaptation across pediatric subspecialties including urology, general surgery, thoracic surgery, and oncology. Robotic platforms such as the da Vinci surgical system and newer alternatives like Senhance have enabled

ABSTRACT

surgeons to perform complex pediatric procedures with enhanced dexterity, 3D visualization, and tremor elimination. These systems are especially advantageous in small anatomical spaces where precision is critical. This narrative review explores the evolution, current applications, advantages, and limitations of robotic surgery in pediatric patients. The review also highlights future prospects and addresses the educational and ethical considerations that accompany the implementation of robotic systems in pediatric settings.

Material & methods: Robotic surgery is now used in a range of pediatric procedures, including pyeloplasty for ureteropelvic junction obstruction, ureteral reimplantation for vesicoureteral reflux, diaphragmatic hernia repair, colorectal procedures such as Hirschsprung's disease repair, lung lobectomies for congenital lung lesions, and tumor resections in oncology. These interventions benefit from the minimally invasive nature of robotics, which typically results in less pain, quicker recovery, and better cosmetic outcomes.

Results: Effective implementation of robotic surgery in pediatrics requires structured training programs that combine virtual reality simulation, dry labs, cadaver training, and supervised clinical exposure. Comprehensive curricula like the SAGES-MIRA guidelines and the fundamentals of robotic surgery aim to standardize skills acquisition among trainees.

Conclusion: Robotic surgery represents a significant leap forward in pediatric surgical care. While hurdles remain in terms of size constraints, cost, and training, the advantages it offers in precision and patient recovery make it a promising modality. With continued innovation and research, robotic systems are poised to play a central role in the future of pediatric surgery.

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Innovations and emerging trends in prostate cancer management: a literature review

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Introduction: Prostate cancer (PC) is the second most frequently diagnosed malignancy in men and remains a major cause of cancer-related mortality worldwide. With over 1.4 million new cases annually, primarily among older men, the disease's global burden necessitates innovative approaches in diagnosis and treatment. Traditional modalities such as radical prostatectomy and radiation therapy have demonstrated limitations due to significant side effects and limited long-term efficacy, particularly in metastatic cases.

Material & methods: Artificial intelligence (AI) has transformed prostate cancer imaging by enhancing the sensitivity and specificity of multiparametric magnetic resonance imaging (MRI) and positron emission tomography (PET) scans. AI-powered tools, such as convolutional neural networks, have demonstrated superiority in lesion detection, Gleason scoring, and diagnostic standardization, reducing variability and improving early intervention.

Results: AI applications have optimized radiotherapy planning through automated contouring and dose distribution, enhancing accuracy while sparing healthy tissues. In surgery, AI-assisted robotic platforms enable real-time anatomical recognition and intraoperative guidance, improving outcomes in nerve-sparing prostatectomies and reducing complications. Despite being an immunologically "cold" tumor, prostate cancer is beginning to respond to novel immunotherapies. Sipuleucel-T, CAR T-cell therapy, and checkpoint inhibitors offer promising results, though challenges related to the tumor microenvironment persist. Combination strategies are under investigation to boost immune responses.

Conclusion: Innovations in AI, immunotherapy, hormonal blockade, radiotherapy, and precision oncology are reshaping the landscape of prostate cancer treatment. These advancements offer improved diagnostic accuracy, reduced side effects, and more personalized care. However, further research is essential to overcome challenges such as treatment resistance and immune evasion, paving the way for better outcomes in the future of prostate cancer management.

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Use of Tamsulosin before trial without catheter (TWOC) in acute urinary retention (AUR) in A & E: a retrospective audit

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Introduction: Acute urinary retention (AUR), often due to benign prostatic hyperplasia (BPH), presents as a sudden and painful inability to void. Trial without catheter (TWOC) is a standard procedure following catheterization to evaluate the return of normal voiding. Tamsulosin, an alpha-1 adrenergic antagonist, relaxes smooth muscle in the prostate and bladder neck and has been suggested to enhance the success rate of TWOC. This audit aimed to assess current practices in prescribing Tamsulosin prior to TWOC for patients presenting with AUR in the emergency department (ED) and inpatient wards, and to evaluate its impact on TWOC outcomes in line with NICE guide-

lines.

Material & methods: A retrospective audit over 3 months reviewed medical records of 20 male patients with AUR secondary to BPH. Data collected included Tamsulosin use, TWOC outcomes, and adherence to NICE recommendations. Patients with other indications for catheterization were excluded.

Results: In the initial audit cycle, 30% (6/20) of patients did not receive Tamsulosin; 2 of these progressed to long-term catheterization. Following guideline reinforcement and intervention, a re-audit showed improved compliance: only 15% (3/20) did not receive Tamsulosin. The data indicated a correlation between Tamsulosin use and higher TWOC success rates, with fewer patients requiring long-term catheterization.

Conclusion: The use of Tamsulosin prior to TWOC significantly improves the chances of successful voiding and reduces the risk of complications associated with prolonged catheterization. Increased adherence to NICE guidelines through targeted interventions in the ED and wards is recommended, along with continued audit cycles to maintain best practices.

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Audit of the hot pathway for extracorporeal shock wave lithotripsy (ESWL): a retrospective study

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Introduction: Extracorporeal shock wave lithotripsy (ESWL) remains a cornerstone in the non-invasive treatment of renal and ureteric stones. The implementation of a "hot pathway" aims to expedite patient management by directly referring suitable cases from emergency departments (ED) or urgent urology clinics to ESWL, thereby reducing symptom duration and avoiding unnecessary hospital admissions.

Material & methods: Data were collected on all ESWL sessions conducted via the hot pathway within the audit period. Parameters analyzed included patient flow, referral origin (ED *vs*. urology outpatient clinics), session attendance, stone location, and treatment outcomes. Inclusion and exclusion criteria were applied based on clinical guidelines for appropriate ESWL use.

Results: The majority of referrals originated from urology clinics; however, over 25% of cases were referred through the hot pathway from the ED, indicating robust accessibility for acute stone presentations. Session utilization and attendance rates were found to be satisfactory, with a clear distribution of stone locations and positive treatment outcomes for most patients. The data suggested that timely intervention through the hot pathway contributed to efficient patient management and reduced hospital burden.

Conclusion: The hot ESWL pathway effectively streamlines the management of acute renal and ureteric stones, offering timely, non-invasive treatment directly from emergency or urgent clinic settings. The audit highlights the strengths of the current system while identifying areas for improvement in referral coordination and pathway promotion. Continued refinement of the pathway is recommended to enhance its impact on patient care and hospital resource utilization.

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Adapting pneumatic lithotripsy with suction sheath during mini-PCNL: method and initial experience

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Introduction: The introduction of suction during percutaneous nephrolithotomy (PCNL) increased the stone-free rates and lowered the incidence of septicemia. Lowering intrarenal pressure and continuous suction are the reasons for suction sheaths advantages. Usually suction in mini-percutaneous nephrolithotomy (mini-PCNL) is associated with the usage of laser lithotripsy to do proper stone fragmentation and to avoid stone retropulsion. In our study, we tried to adapt pneumatic lithotripsy with specific measures to avoid stone retropulsion and to take the benefits of suction with reasonable cost.

Aim: To evaluate the efficacy and feasibility of pneumatic lithotripsy with a suction sheath in mini-PCNL.

Material & methods: A prospective study was conducted including 20 patients who underwent mini-PCNL for renal stones. All patients underwent PCNL using a local pneumatic lithotripsy machine. Specific measures were done to overcome the retropulsion effect of the pneumatic lithotripsy. In addition to the pneumatic lithotripsy, a suction device was used (clear Petra suction sheath 18 fr and 22 fr). Mini-PCNL was performed using both supine and prone positions. Primary end points were stone-free rate and incidence of septicemia.

Results: Mean stone size was 28.82 Â ± 5.90 mm. The mean Hounsfield unit of the stone was 1050.64. The mean Operative time was 72.01 Â ± 28.81 min. 6 cases (30%) were done under spinal anesthesia. 25% of the cases are pediatric cases. At one-month follow-up, radiological complete clearance was 85%. No cases of postoperative septicemia were detected.

Conclusion: Using a suction sheath with pneumatic lithotripsy during mini-PCNL is feasible and effective after following certain measures. An average stone-free rate was achieved with no incidence of septicemia.

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Pan anterior urethral stricture, how to hasten the procedure and improve the outcomes

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Introduction: Pan anterior urethral stricture management is a challenging procedure, we consider some points to make it easier, shorter in time and better in results
Material & methods: 40 patients underwent oral mucosa substitution urethroplasty in the duration between Jan 2019 to Jan 2024, a remarkable shorter operative time is achieved and better urethral patency and flowetery with less complications.
Results: Operative time was 180 Â ± 20 minutes, Q_{max} was 18 Â ± 5.5 mL/sec, with better IIEF scores, lesser complications, like penile curvature and recurrent stricture
Conclusion: Pan anterior urethral stricture repair is not an impossible mission, oral mucosa harvesting and grafting technique can be modified by many means to get a successful operation and better results.

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Laparoscopic management of a large renal hydatid cyst: a case report

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Renal hydatid cyst is a rare clinical entity with features ranging from no symptoms, to a palpable mass and pressure symptoms, or to rupture and dissemination of the cyst. Our aim is to present a case of a huge renal hydatid cyst that was managed laparoscopically.
A 40-year-old female patient presented with a large right sided abdominal mass. It was previously diagnosed as a simple renal cyst. Upon reassessment, computer tomography (CT) urography showed a large right anterior pararenal retroperitoneal cystic lesion measuring (17 × 14 × 8 cm). It was one large locule of fluid density and a thick enhancing peripheral wall reaching 1.2 cm thickness with two smaller radiodense locules in the wall at its inferior edge. There were no internal septa, no calcifications, and no solid enhancing components and the overall picture was suggestive of renal hydatid cysts. An abdominal magnetic resonance imaging (MRI) with intravenous contrast was mandated due to the peripheral wall thickness exceeding 1 cm of which suspicion of malignancy arose. The rest of the abdomen was clear. A posterior anterior chest X-ray was normal.
The patient underwent laparoscopic hydatid cyst excision. The cyst was punctured and 1000 cc of clear fluid was drained carefully. The cyst was filled with the same amount, using hypertonic saline, and we waited for 20 minutes. The daughter cysts and finally the anterior portion of the cyst were removed. The post-operative period was uneventful. At 1-month post-operative visit, the patient was doing well.
Renal hydatid cyst, although uncommon, could mimic a simple renal cyst. Care should be taken when evaluating a simple renal cyst and with existence of any doubts, further workup should be considered to avoid missed diagnoses.

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Simultaneous bilateral laparoscopic radical nephrectomies in a patient with bilateral renal masses on hemodialysis: a case report

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Introduction: Acquired cystic kidney disease (ACKD) is a disorder characterized by development of fluid-filled sacs from kidneys, which typically develop in individuals with chronic kidney disease (CKD) or on dialysis. The cysts could stay asymptomatic or present with complications such as hematuria, pain, or present as renal cell carcinoma. Here, we present a case of bilateral laparoscopic radical nephrectomies in a patient with bilateral renal masses.
Material & methods: A 66-year-old female patient who was a known case of CKD on hemodialysis for the last 4 years, presented with an incidental finding of bilateral renal masses on ultrasound scan during workup for epigastric pain. A chest, abdomen, and pelvic computed tomography (CT) scan with intravenous contrast showed the right kidney containing a 3.4 cm mid-portion cystic lesion and the left kidney containing 1.7 cm lower pole cystic lesion. Both sides showed thick wall enhancement suspicious for renal cell carcinoma (RCC).
Results: The patient underwent bilateral laparoscopic radical nephrectomies through 7 ports and the specimens were retrieved through a pfannenstiel incision. The duration of the operation was 2 hours and 20 minutes. Postoperatively, the frequency of hemodialysis was increased to every other day from 3 times a week. Histopathologic examination (HPE) of the right kidney showed clear cell papillary renal cell carcinoma and HPE of the left side showed xanthogranulomatous pyelonephritis with abscess formation. Two weeks post operatively, the frequency of the hemodialysis is back to 3 times a week. Her constitutional symptoms have now improved and she is under follow-up with a nephrologist.
Conclusion: ACKD is a condition primarily seen in patients with chronic kidney disease who are on dialysis. When these patients present with bilateral renal masses,

simultaneous bilateral laparoscopic nephrectomies is a valid option and can be considered a means of definitive management.

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Laparoscopic radical nephrectomy for a massive renal cell carcinoma presenting for the first time as a ruptured mass: a rare surgical odyssey

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Introduction: Renal cell carcinoma is a malignant condition of the kidney. Rupture of the mass is one of the rare ways in which a renal mass could present. Our aim is to present a case of ruptured renal cell carcinoma that was managed with laparoscopic radical nephrectomy with para-aortic lymph node dissection.
Material & methods: A 52-year-old female patient referred to the emergency room complaining of severe left loin pain for the past 7 days. It was sudden in onset, radiating to the back and to the inguinal region. She had had a dry cough for 2 months and was sometimes associated with loin pain. On abdominal examination, there was a visible and palpable mass with tenderness in the left side of the abdomen. Complete blood count showed a hemoglobin drop of 4 g/dL in the span of 2 days. Ultrasound scan of the abdomen showed a 9 × 7 cm mass and a 5 × 5 cm mass in the left kidney displacing the pelvicalyceal system. Computed Tomography (CT) urography showed a left renal mid-to-lower pole exophytic enhancing mass, measuring approximately 10 Ã— 9 Ã— 8 cm that demonstrated rupture into the subcapsular and perinephric regions (anterior, lateral, and posterior), with surrounding fat stranding. The overall involved area measures approximately 16 Ã— 13 Ã— 11 cm. There were few suspicious para-aortic lymph nodes with the largest measuring 14.6mm.
Results: After resuscitation, she underwent laparoscopic left side radical nephrectomy with para-aortic lymph node dissection. Histopathological examination showed clear cell renal cell carcinoma with sarcomatoid, rhabdoid, and anaplastic features.
Conclusion: Rupture is an extremely rare presentation of RCC. A minimally invasive method such as laparoscopy is a viable modality for management of these cases.

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The optimal laser fiber core size for endourological performance: a systematic review

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Aim: This systematic review evaluates the impact of laser fiber core size on energy delivery, fiber tip degradation, thermal safety, durability, fracture resistance, retropulsion, and flexibility in endourological procedures.
Methods: This review (PROSPERO ID: CRD42025640744) followed the preferred reporting items for systematic reviews and meta-analysis (PRISMA) statement. A comprehensive literature search was conducted using PubMed and Cochrane databases to identify articles that compared laser fiber core sizes. The initial search produced 1,148 articles, which were screened for relevance. After screening, 109 duplicates were removed, and 996 articles were excluded based on title and abstract screening. After the exclusion of two irretrievable articles, 43 articles underwent full-text review. Thirty articles that lacked relevant parameters or were review articles were removed. One article was added manually, and a total of 14 studies were included for review.
Results: Smaller core fibers (≤ 300 µm) provide higher energy delivery and greater flexibility but are prone to tip degradation and exhibit lower durability under high-power settings. Larger core fibers (≥ 300 µm) demonstrate superior energy efficiency, reduced tip degradation, and enhanced fracture resistance. Thermal safety is linked closely to irrigation and fiber size. Smaller fibers maintain safer temperatures under irrigation. Retropulsion is less pronounced in smaller and larger fibers compared to medium-core fibers (365-550 µm). Bubble formation during Thulium fiber laser (TFL) procedures is affected by fiber core size. Smaller fibers (150 µm) produce larger bubbles than Larger fibers (272 µm). TFL showed better flexibility, lower fracture rates, and reduced retropulsion compared to holmium: yttrium-aluminum-garnet (Ho: YAG) lasers.
Conclusion: Laser fiber core size influences energy delivery, durability, thermal safety, and flexibility, affecting endourological outcomes. Appropriate fiber selection improves procedural efficiency and safety.

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The efficiency of the multiple-staged approach using the minimally invasive techniques in dealing with multiple stone burden patients

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ABSTRACT

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Introduction: The multi-staged approach in dealing with multiple stone burden patients via the minimally invasive techniques in urological surgeries has become an essential part of the process of achieving optimal treatment for the urologic patients with higher rates of reaching the zero stone state.
Material & methods: A 60 years old male patient presented to the clinic with a complaint of bilateral flank pain, hematuria and irritative urinary tract symptoms over the past few weeks. A further non-contrast enhanced spiral CT of the urinary tract (NCCTU) showed multiple stone burden, a huge bladder stone measuring about 5 cm, a left mid-ureteric stone about 2 cm, a left lower pole stone about 2.5 cm and right kidney multiple stones of varying sizes. The patient was designed for a multiple stage intervention, starting with the application of bilateral double J stent at session one to achieve proper drainage using a Storz Cystoscope 26 fr. The second stage of intervention was to perform a flexible uretroscopy with Holmium laser lithotripsy of the bladder, left mid-ureteric and left lower pole stones using Huge-med flexible uretroscopy 7.5 fr. A third stage session was done through performing a right percutaneous nephrolithotomy (PCNL) using a Storz Nephroscope 24 fr. The last stage of intervention was by performing a transurethral resection of the prostate (TURP) using a Bipolar Stima Resectoscope 26 fr. Rendering the patient completely stone free at a time of a two months of staged interventions through the minimally invasive techniques.
Results: The multi-staged approach provides higher rates of achieving the zero stone state with shorter hospital stay duration and shorter recovery period
Conclusion: The feasibility of integrating the multi-staged approach along the minimally invasive techniques provides higher rates of accuracy towards achieving the zero stone state in multi-stone patients with a shorter hospital stay and lower risks of developing complications.

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Use of hydrogen peroxide for bladder clot evacuation: a case report

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Aim: To describe the use of diluted hydrogen peroxide as an alternative method for effective evacuation of a large bladder clot.
Methods: A male patient presented with acute urinary retention, draining 2 L of urine upon catheterization, and subsequently developed Ex-vacuum hematuria. Despite continuous saline irrigation for 7 days, he experienced recurrent catheter blockages. Ultrasound confirmed the presence of a large bladder clot. Bladder irrigation was performed using a solution of 3% hydrogen peroxide diluted 1:1 with normal saline. Fifty milliliters of the solution were instilled into the bladder and left to dwell for 3 minutes before aspiration, followed by saline irrigation. This cycle was repeated ten times. No statistical analysis was required due to the single-case nature of this report.
Results: Complete resolution of the bladder clot was achieved without pain or complications. Follow-up ultrasound and flexible cystoscopy confirmed total clot clearance. The procedure successfully avoided the need for surgical intervention, and the patient was discharged shortly thereafter.
Conclusion: Bladder irrigation with diluted hydrogen peroxide is an effective, safe, and low-cost alternative for lysis and evacuation of large bladder clots, potentially avoiding surgical intervention and reducing hospitalization time.

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Persistent urachus perforation as a complication of endoscopic urological surgery: a case report

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Aim: To report a rare case of bladder perforation related to persistent urachus in a patient who developed acute urinary retention following bilateral double-J stent placement for ureterolithiasis.
Methods: A 58-year-old hypertensive male presented with bilateral ureterolithiasis, with stones at the ureterovesical junction measuring 4 mm on the right and 7 mm on the left. He underwent bilateral double-J stent placement, during which an enlarged prostate with a prominent median lobe was observed. In the immediate postoperative period, he developed acute urinary retention, requiring indwelling bladder catheterization and combined medical therapy. One week after surgery, the patient developed severe suprapubic abdominal pain. Abdominal CT revealed an anterior collection to the bladder measuring approximately 9 × 5 × 1 cm, with gas foci dissecting the anterior abdominal wall. Bladder contrast instillation showed a small leak through the bladder dome. Retrospective review of the preoperative CT suggested a possible persistent urachal remnant.
Results: The patient underwent surgical exploration, which identified a small bladder perforation after instillation of saline solution. Bladder and peritoneal repair were performed. He remained with an indwelling catheter for 7 days and showed complete resolution of the collection.
Conclusion: Persistent urachus is a rare condition that can predispose to bladder perforations and abdominal complications. Preoperative recognition of these anatomical variations and prompt surgical repair are essential to reduce morbidity. This diagnosis should be considered in cases of atypical bladder perforation to ensure appropriate management.

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Acute kidney injury (AKI) in Alport syndrome pregnant woman: a case report

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Background: Alport syndrome (AS) is an X-linked genetic disorder characterized by mutations in type IV collagen genes, resulting in progressive renal dysfunction, frequently progressing to end-stage renal disease requiring dialysis.
Aim: To evaluate the management and pregnancy outcome in a 24-year-old primigravida with Alport syndrome presenting with acute kidney injury due to hydronephrosis in a solitary kidney during pregnancy.
Method: This case involves a 24-year-old woman diagnosed with Alport syndrome at age 17, presenting at 21 weeks' gestation with acute kidney injury (AKI) superimposed on chronic kidney disease (CKD). AKI was precipitated by significant right hydronephrosis in a solitary kidney, compounded by uterine compression. Urgent right ureteric stent insertion was performed, with maternal and fetal outcomes monitored via renal function tests, ultrasound, and multidisciplinary care.
Results: Ureteric stent placement resolved hydronephrosis, stabilizing renal function (serum creatinine improved from 6.8 mg/dL to 2.4 mg/dL). Fetal growth remained normal, and a healthy infant was delivered at 37 weeks via cesarean section with no immediate complications.
Conclusion: With meticulous multidisciplinary prenatal care and timely intervention, women with Alport syndrome can achieve favorable pregnancy outcomes despite complex renal complications.

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Finding the safe-energy band: optimising Holmium:YAG laser settings to prevent thermal and pressure injury

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Background: High-power Holmium:YAG (Ho:YAG) lithotripsy risks thermal tissue injury (> 43 °C) and intrarenal pressure (IRP) surges (> 30 mmHg). Conventional "dusting" and "fragmentation" paradigms lack precision in balancing energy delivery, cooling, and outflow. We systematically reviewed experimental and clinical evidence to define a "safe-energy band" of Ho:YAG parameters that minimize thermal and pressure injury during URS and mini-PCNL.
Methods: A PRISMA-aligned search (2010–2025) identified bench, animal, and clinical studies reporting intrarenal temperature or pressure under defined Ho:YAG settings. Extracted variables included pulse energy (0.2–1.5 J), frequency (5–60 Hz), pulse width (short/long/modulated), fibre size (200–365 µm), irrigation rate/type, and use of suction or access sheath. Outcomes were time to exceed 43 °C, peak IRP, and incidence of fever/SIRS or mucosal injury. Findings were synthesized to propose a laser safety-band framework.
Results: Continuous laser firing at 1.0 J × 20 Hz exceeded 43 °C in 9 s without irrigation, while 0.5 J × 20 Hz reached it in ≥ 14 s. Adequate irrigation (15–30 mL/min) maintained temperatures < 43 °C even at 30 W for 60 s, though excessive flow raised IRP if outflow was restricted. High-power settings (20–30 W) produced peaks >56 °C in confined systems. Long-pulse or modulated modes reduced\ retropulsion, enabling efficient ablation at lower energies; combined with suction-assisted UAS, these maintained IRP < 30 mmHg and temperature < 43 °C. Clinically, high-frequency (40–50 Hz), low-energy (0.4–0.5 J) long-pulse strategies achieved efficient dusting without breaching safety thresholds.
Conclusion: Ho:YAG lithotripsy safety relies on integrated control of energy, pulse duration, fibre calibre, and irrigation. Moderate-energy (0.5 J), high-frequency (40 Hz), long-pulse settings with active outflow or suction preserve thermal and pressure safety. This "safe-energy band" framework transcends the dust-versus-frag dichotomy and offers pragmatic guidance for centres without access to Thulium-fibre systems.

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Beyond caliber: a systematic review of pressure, thermal, and stricture outcomes with 10/12 Fr *vs.* 12/14 Fr ureteral access sheaths in flexible ureteroscopy

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Background: The choice between 10/12 Fr and 12/14 Fr ureteral access sheaths (UAS) in flexible ureteroscopy (fURS) balances irrigation and pressure control against ureteral wall trauma. While larger sheaths improve hydrodynamics, their physiological and structural consequences remain incompletely defined. This review compares both calibres across fluid-dynamic, thermal, and safety parameters, including quantified risk of ureteral injury and long-term stricture formation.
Methods: A PRISMA-aligned systematic review (2010–2025) included bench, animal, and clinical studies comparing 10/12 Fr *vs.* 12/14 Fr UAS ± suction. Endpoints: intrarenal pressure (IRP), irrigation flow, temperature during Holmium:YAG lithotripsy, stone-free rate (SFR), ureteral injury grading, and stricture rate.
Results: Bench models show 12/14 Fr sheaths double irri-

ABSTRACT

gation flow (approximately 33 *vs.* 17 mL/min) and reduce pressure spikes four-fold (29 *vs.* 121 cm H_2O under forced irrigation). Thermal models demonstrate faster heat dissipation and lower peak collecting-system temperatures (< 43°C at 20–30 W) with larger sheaths. Clinically, overall SFR and complication rates are similar between sizes. Acute ureteral wall injury occurs in around 45% of 12/14 Fr insertions (versus approximately 20% with 10/12 Fr); over 85% are low-grade and self-resolving. High-grade injury appears in 5–8% of large-sheath cases but rarely after pre-stenting. Long-term ureteric strictures are uncommon (< 2% overall; 1.8% with 12/14 Fr *vs.* 0% with £11.5 Fr). Suction-enabled UAS maintain IRP < 25 cm H_2O, enhance fragment clearance, and halve infectious complications without increasing injury risk.

Conclusion: Larger UAS offer superior pressure and thermal control but require caution to avoid ischemic injury. When preceded by stenting or used with suction, 12/14 Fr sheaths achieve optimal visibility and safety with minimal stricture risk. Sheath selection should be individualized—driven by ureteral compliance, stone complexity, and pressure goals—reflecting a shift from 'bigger is better' to 'balanced physiology is safer'.

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