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APAPU 2026 ISTANBUL

26th Asia-Pacific Association of Paediatric Urologists Annual Congress



LIVE
SURGERY

Hypospadias Live-Surgery Course



18-20 Sep 2026

Novotel Zeytinburnu-Istanbul

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Chairman Organizing Committee
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Asia-Pacific Association of Pediatric Urologists

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APAPU ISTANBUL 2026



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Sujit Chowdhary
President

Welcome to APAPU-2026-Istanbul

We are delighted to invite you to the 26th Asia-Pacific Association of Pediatric Urologists Annual Congress (APAPU-2026). The APAPU-2026 Congress will be held in Istanbul, Turkey on September 18-20, 2026.

The European Society of Pediatric Urology (ESPU) and the American Academy of Pediatrics (AAP) are supporting our congress to shape the future and elevate your practice.

APAPU-2026 promises more than just scientific richness; it offers a true "*Pediatric Urology Feast and Celebration*" in Istanbul, recognized as one of the world's premier meeting points.

Why APAPU-2026-Istanbul is an Unmissable Milestone

- **A Truly International Experience with Global Participation:** Our congress will serve as a dynamic platform for global collaboration, the exchange of contemporary knowledge, and professional networking. We are bringing together a global community of 500 professionals from over 30 countries.
- **Experience an Unparalleled "Scientific Feast":** APAPU-2026 is meticulously designed to be more than a congress; it is a "*Pediatric Urology Feast and Celebration*". A prestigious faculty of more than 100 world-renowned experts will represent diverse perspectives from America (AAP), Europe (ESPU), and Asia (APAPU). This is your opportunity to immerse yourself in a "*Scientific Festival*" where innovation meets evidence-based excellence.
- **Shape the Future and Elevate Your Practice:** Engage with the latest advancements and master challenging clinical topics through sessions led by the titans of our field.

Why Istanbul?

- **A Unique Destination:** Istanbul is the historic meeting point of major continents—Europe, Asia, and Africa.
- **The Ultimate Meeting Point and Inspiring Atmosphere:** There is no better place to reconnect and celebrate our shared passion than Istanbul - "*one of the world's most exceptional, inspiring, and vibrant meeting points*".
- **Where Science Meets History and Culture:** Istanbul - the legendary bridge where continents, cultures, and ideas converge. You and your family will experience an unforgettable cultural journey.

Why You Should Not Miss the Pre-Congress Hypospadias Live-Surgery Course

- **A Masterclass in Perspective:** Witness the world's most experienced surgeons demonstrate contrasting philosophies and techniques on similar clinical cases. This unique "*clash of perspectives*" is specifically designed to challenge your horizons and refine your clinical intuition.
- **Unforgettable Scientific Sessions:** Beyond live surgeries, do not miss the critical sessions where specialists who have made global impacts in hypospadias surgery share their invaluable experiences.

Join us in Istanbul to witness innovation, renew old friendships, and ignite new collaborations.
Let's celebrate the art and science of Pediatric Urology together!

Learn. Share. Connect. Innovate. Lead.

SCIENTIFIC PROGRAMME



07:50-08:00 **Welcome** Sujit Chowdhary, Abdurrahman Onen

Koç University Hospital

08:00-15:30 **Distal, Penile, Proximal Hypospadias Live Surgery**
 Room 1: Warren Snodgrass – Nicol Corbin Bush
 Room 2: Ahmed Hadidi



LIVE SURGERY

Hypospadias Live-Surgery Course



Koç University Hospital
Topkapı / İstanbul

Video Transmission





Warren Snodgrass
Nicol Corbin Bush
Ahmed Hadidi

Course Coordinators: Abdurrahman Onen, Mehmet Ali Özen



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HALL - A

08:00-13:00 **Live Surgery Moderators – Group 1**
 Chung-Kwong Yeung, Abdurrahman Onen, Gianantonio Manzoni, Grahame Smith

13:00-14:00 **Lunch**

14:00-15:30 **Live Surgery Moderators – Group 2**
 Peter Cuckow, Carlos RN Torres, Phitsanu Mahawong

15:30-16:15 **Hypospadias: Take Home Messages -1**
 Personal view and practice on Distal-Proximal-Failure of Hypospadias and Curvature:
 Evaluation and Treatment Strategy (Indications-Timing-Type of Surgery)
Chairs: Yunus Söylet, Luis Braga, Jai Kumar Mahajan
 15:30-16:02 **Speakers:** Ibrahim Ulman, Peter Cuckow, Yichen Huang, Vishal Sawant (8 min each)
 16:02-16:15 **Discussion**

16:15-16:30 **Coffee Break**

16:30-17:30 **Hypospadias: Take Home Messages -2**
Chairs: Sujit Chowdhary, Chung-Kwong Yeung, Shishir Sudhakar Jadhav

16:30-16:45 **Ahmed Hadidi:** Distal Hypospadias (Indications-Timing-Type of surgery)

16:45-17:00 **Warren Snodgrass:** Proximal Hypospadias and Curvature (Evaluation-Timing-Strategy-Type of surgery)

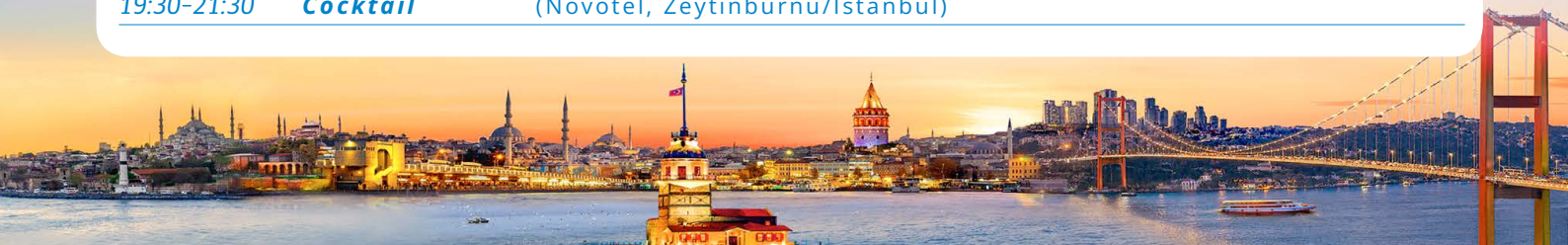
17:00-17:15 **Gianantonio Manzoni:** Failure of Hypospadias (Evaluation-Timing-Strategy of surgery)

17:15-17:45 **Discussion**

17:45-18:30 **Round Table: Open Questions from the Audience**
 Warren Snodgrass, Nicol Corbin Bush, Ahmed Hadidi, Luis Braga,
 Gianantonio Manzoni, Chung-Kwong Yeung, Abdurrahman Onen

18:30-18:35 **Closing Remarks** Lai Fui Boon

19:30-21:30 **Cocktail** (Novotel, Zeytinburnu/Istanbul)



DAY 2 Hall-A

- 08:00–08:20 Welcome: Sujit Chowdhary, Abdurrahman Onen**
- 08:20–09:00 AS1 – The Future of Pediatric Urology: Digital and Artificial Intelligence Tools**
Chairs: Chung-Kwong Yeung, Congde Chen
- 08:10-08:20 **Serdar Tekgül:** Differences between east & west: Dispersion-Rarefaction of experience. Threats-Opportunities
- 08:30-08:40 **Anthony Herndon:** AI in scientific publication
- 08:40-08:50 **Mehmet Deniz:** AI in Pediatric Urology: Diagnosis, treatment and follow-up
- 08:50-09:00 *Discussion*
- 09:00–09:45 AS2 – Minimally Invasive Surgery: New Technologies**
Chairs: Fatih Atug, Kant Jitendra Shah
- 09:00-09:10 **Bülent Önal:** *Robotic Surgery:* Robot surgeons: Benefits & Indications?
- 09:10-09:20 **Alaa El Ghoneimi:** *Laparoscopy:* Where are we? Where are we going?
- 09:20-09:30 **Adel Aljneibi:** *Endourology:* Where are we? Where are we going?
- 09:30-09:45 *Discussion*
- 09:45–10:30 AS3 – Future of Antibiotic Prophylaxis, UTIs, Genetics, VUR**
Chairs: Lai Fui Boon, Sujoy Arun Das
- 09:45-10:15 **Speakers:** Grahame Smith, Ali Avanoğlu, Luis Braga
- Debate (Infant VUR < 1 year old): Conservative vs Prophylaxis vs Injection. Is antibiotic abused?*
- 10:15-10:30 *Discussion*
-
- 10:30–10:45 Coffee Break**
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- 10:45–11:30 AS4 – Ureteropelvic Junction Type Hydronephrosis**
Chairs: Alaa El Ghoneimi, Anil Takvani
- 10:45-10:55 **Anthony Herndon:** Postnatal evaluation and work up of prenatal hydronephrosis
- 10:55-11:05 **Luis Braga:** Difficult situations, UTI and prophylaxis in UPJ-type hydronephrosis
- 11:05-11:15 **Abdurrahman Onen:** Severity of hydronephrosis and surgical decision making in UPJ-type hydronephrosis
- 11:15-11:30 *Discussion*
- 11:30–12:05 AS5 – Imaging in UPJ-type Hydronephrosis**
Chairs: Tarmono Djojodemedjo, Arzu Şencan
- 11:30-11:37 **Ayşe Kalyoncu Uçar:** *Ultrasound:* Gold Standard
- 11:37-11:44 **Seema Sud:** *MR Urography:* Is it really necessary? When? Why? Whom?
- 11:44-11:51 **Jae Min Chung:** Renal scan: When is it necessary? Why? Which? Whom?
- 11:51-11:55 **Ultrasonographic and MAG3 renal scintigraphic findings in pediatric severe upper urinary tract dilations**
Hülya Seymen¹, Mehmet Ali Özen¹, Evrim Özmen¹, Cemile Pehlivanoglu¹, Ilmay Bilge¹, Abdurrahman Onen²
¹ Koç University Hospital, ²Dicle University Medical Faculty Turkey
- 11:55-12:05 *Discussion*
- 12:05–12:30 AS6 – Journal of Pediatric Urology Lecture – APAPU 2026**
Chairs: Anthony Herndon, Sujit Chowdhary
- 12:05-12:25 **Philip Ransley:** A kaleidoscope looks at paediatric urology
- 12:25-12:30 *Discussion*



12:30-13:30 Lunch

12:40-13:20 Satellite Symposium 1 – Enuresis: From past to present

Chairs: Grahame Smith, Haluk Emir



12:40-12:50 **Chung-Kwong Yeung:** Physiology-Physiopathology of Enuresis

12:50-13:00 **Abdurrahman Onen:** Evaluation of (Mono/Nonmono symptomatic) Enuresis

13:00-13:10 **Tayfun Oktar:** Treatment of Mono-symptomatic Enuresis

13:10-13:20 *Discussion*

13:30-14:15 AS7 – Ureterocele and Duplex System

Chairs: Sujit Chowdhary, Tarkan Soygur

13:30-14:00 **Speakers:** Kimihiko Moriya, Yichen Huang, Tayfun Oktar

Debate: Which approach for whom? Puncture? Incision? Partial nephrectomy? Ureteroneocystostomy?

14:00-14:15 *Discussion*

14:15-15:00 AS8 – Bladder Exstrophy-Epispadias Complex

Chairs: Hawkar Khayyat, Sadaf Aba Umer

14:15-14:25 **Yunus Söylet:** Early and late challenges in bladder exstrophy

14:25-14:35 **Marc-David Leclair:** Kelly reconstruction combined with bladder closure

14:35-14:45 **Peter Cuckow:** Good outcome measures to achieve better long-term results (storage, emptying, sexual function, QOL)

14:45-15:00 *Discussion*

15:00-15:30 Coffee Break

15:30-16:10 AS9 – Posterior Urethral Valves – Valve Bladder Syndrome

Chairs: Philip Ransley, Jun Wang

15:30-15:54 **Speakers:** William DeFoor, Carlos RN Torres, Jai Kumar Mahajan

*Debate: When CIC? When night time CD? When Mitrofanoff? When permanent stoma?
When to divert? Vesicostomy? Ureteric Sx?*

15:54-16:10 *Discussion*

16:10-17:30 AS10 – Urinary Treatment of Neuropathic Bladder

Chairs: Philip Ransley, Şeyhmus Kerem Özel

16:10-16:40 **Speakers:** Ibrahim Ulman, Jianguo Wen, Sajid Sultan

Debate: Botox? Sling? Artificial sphincter? Bladder neck reconstruction? Augmentation?

16:40-16:50 *Discussion*

Non-Urinary Treatment of Neuropathic Bladder

16:50-16:58 **Adel Aljneibi:** Fetoscopic repair of MMC in utero

16:58-17:06 **Manjunath Prasad:** Spinal dysraphism surgery (detethering of spinal cord): When? Why? How? Long-term results

17:06-17:14 **Ajay Sinha:** The role of monitoring and urodynamics in complex cases

17:14-17:18 **Şeyhmus Kerem Özel:** The Effect and Comparison of Different Physiotherapeutic Techniques in Children with Neurogenic Bladder Dysfunction

17:18-17:30 *Discussion*



08:30-09:15 BS1 – Difficult Cases of Hydronephrosis

Chairs: Rüknettin Aslan, Dilşad Dereli

08:30-08:40 **Kant Jitendra Shah:** Laparoscopic pyeloplasty challenge

08:40-08:50 **Galina Kuzovleva:** Hydronephrosis in Renal Anomalies (Horseshoe Kidney etc.): Tips / Tricks / Difficulties

08:50-09:00 **Ahsen Karagözlü Akgül:** Poorly Functioning UPJ obstruction: Pyeloplasty / Nephrectomy / Watchful waiting

09:00-09:15 *Discussion*

09:15-09:55 BS2 – Hydronephrosis (Free papers)

Chairs: Doğan Yigit, İsmail Selvi

09:15-09:20 **Beyond Size: Predictors of Renal Salvageability in Pediatric Giant Hydronephrosis — A ROC Analysis**

Hasan Deliağa¹, Yusuf Atakan Baltrak²

¹Bursa Yüksek İhtisas Education and Research Hospital, Turkey. ²Adana City Education and Research Hospital, Turkey

09:20-09:23 **Impact of Diagnostic Retrograde Pyelography and Selective JJ Stenting on Pyeloplasty Decision-Making in Pediatric Ureteropelvic Junction Obstruction**

Dilşad Dereli¹, Baran Tokar²

¹Department of Pediatric Urology, Faculty of Medicine, Eskişehir Osmangazi University-Turkey. ²Former Professor of Pediatric Surgery and Urology, Department of Pediatric Surgery, Division of Pediatric Urology, Eskişehir Osmangazi University Faculty of Medicine, Eskişehir, Turkey

09:23-09:26 **Management Strategies of Pediatric Congenital Hydronephrosis. Cross-Sectional Survey in The Russian Federation**

Galina Kuzovleva¹, Dmitry Morozov², Ilya Kagantsov³, Vladimir Sizonov⁴, Sergey Bondarenko⁵, Viktoria Shaderkina⁶, Olga Lavrenteva⁷, Andrey Boiko⁸

¹Children's City Clinical Hospital No: 9 Named After G.N. Speransky, Russia, ²Veltishchev Research and Clinical Institute for Pediatrics of the Pirogov Russian National Research Medical University, Russia, ³Almazov National Medical Research Centre, Russia, ⁴Rostov-on-Don Regional Children's Clinical Hospital, ⁵Clinical Emergency Hospital No. 7, Russia, ⁶N.Lopatkin Scientific Research Institute of Urology and Interventional Radiology, Russia, ⁷Pirogov Russian National Research Medical University, ⁸Children's Hospital No.2 of St. Mary Magdalene, Russia

09:26-09:30 *Discussion*

09:30-09:33 **Glow and Tell: The Expanding Role of ICG Near-Infrared Fluorescence in Paediatric Urological Surgery — From Ureters to Urethroplasty, Torsion to Tumors**

Jeevak Shetty, Manjiri Soma Shekhar

Aster Hospitals Bangalore, India

09:33-09:36 **Long-term Validation of Early Postoperative APD Reduction as a Predictor of Laparoscopic Pyeloplasty Success in Infants**

Zita Hornok¹, VVS Chandrasekharam²

¹Independent Researcher, Hungary, ²Ankura Hospital for Women & Children, Hyderabad.

09:36-09:40 *Discussion*

09:40-09:43 **Clinical Features of late-presenting UPJ Obstruction in Children and Adolescents Undergoing Laparoscopic Pyeloplasty**

Youngjae Im, Kwanjin Park

Seoul National University Children's Hospital, South Korea

09:43-09:46 **The Evaluation of the Effectiveness of Ante- and Postnatal Treatment of Patients with Severe Forms of Obstructive Uropathy**

Liudmila Deryugina¹, Natalia Kosovtsova²

¹Saratov State Medical University Named After V. I. Razumovsky, Saratov, Russia, ²FGBU Mother and Child Care Research Institute, Ministry of Health of the Russian Federation, Yekaterinburg, Russia

09:46-09:55 *Discussion*



09:55-10:45 BS3 – Minimally Invasive Surgery

Chairs: Mustafa Alghanbar, Serhat Gürocak

09:55-10:04 **Anil Takvani:** RIRS in Pediatric Patients: Digital Mini Flexi10:04-10:13 **Elif Altınay Kırılı:** How to start a new centre in robotic surgery. Principles in robotic urologic reconstruction10:13-10:22 **Manjiri Soma Shekhar:** Advances in robotic platforms and surgical approaches10:22-10:31 **Mustafa Alghanbar:** Minimally Invasive Surgery

10:31-10:45 Discussion

10:45-11:00 Coffee Break**11:00-11:30 BS4 – Minimally Invasive Surgery (Free papers)**

Chairs: Cüneyt Günşar, Gökçe Karlı

11:00-11:04 **Clinical Experience of Robot-Assisted Lich-Gregoir Ureteric Reimplantation in Infants with UVJO**Congde Chen*The Second Affiliated Hospital and Yuying Children's Hospital of Wenzhou Medical University. China*11:04-11:08 **Clinical Outcomes of Robot-Assisted Laparoscopic Extravesical Common Sheath Ureteral Reimplantation in Refluxing Duplex Ureters**Jong Hoon Lee¹, Sang Hoon Song²¹ Samsung Medical Center. South Korea, ² Asan medical center. South Korea11:08-11:15 **Discussion**11:15-11:19 **Initial Experience of Robot-Assisted Laparoscopic Extravesical Ureteral Reimplantation (RALUR-EV) in Korean Pediatric Patients**Jong Hoon Lee*Samsung Medical Center. South Korea*11:19-11:23 **Initial Experience of Pneumovesicoscopic Lower Urinary Tract Reconstruction in Duplex System with Ectopic Ureterocele**Youngjae Im¹, Kwanjin Park¹, Kyeong Kim²¹Seoul National University Children's Hospital. South Korea, ² Chungbuk National University Hospital. South Korea11:23-11:30 **Discussion****11:30-11:50 BS5 – Stones (Free papers)**

Chairs: Günay Ekberli, Hasan Çayırılı

11:30-11:33 **Displacement of Concrement from Inaccessible Calyx During Nephroscopy Without Creating an Additional Percutaneous Access in Children**Djamalutdin Aliev, Yuri Rudin, Artur Vardak*N. Lopatkin / N.Lopatkin Scientific Research Institute of urology and Interventional Radiology. Russia*11:33-11:37 **Comparative Study of Two Different Extracorporeal Shock Wave Lithotriptors in Children**Bashir Ahmed Qureshi, Sajid Sultan, Sadaf Afa Umer Kodawwala, Waqar Hameed Ghazi, Syed Adeeb Ul Hassan Razvi*Sindh Institute of Urology and Transplantation Karachi (SIUT). Pakistan*11:37-11:40 **Impact of an Indwelling JJ Stent on Quality of Life in Children with Urolithiasis**Roman Surov, Oleg Shmyrov, Marina Lazishvili, Artur Kulaev, Sergey Sharkov, Kirill Morozov, Anton Kovachich, Aleksey Lobach*Morozovskaya Children's City Clinical Hospital. Russia.*11:40-11:50 **Discussion****12:30-13:30 Lunch**

DAY 2 Hall-B

13:30-14:15 **BS6 – Pediatric uro-oncology**

Chairs: Ali İhsan Dokucu, Mevlüt Keleş

13:30-13:37 **Yanchao Qu:** Treatment of bilateral Wilms' tumor in children, a report from a single center in China

13:37-13:44 **Sadaf Aba Umer:** Bilateral wilms' tumour and nephroblastomatosis: Balancing oncologic cure with nephron preservation

13:44-13:52 **Basant Kumar:** IVC/Renal vein thrombus in uro-oncology

13:52-14:02 **Discussion**

Free papers

14:02-14:05 **Tuberous Sclerosis Complex (TSC) With Bilateral Renal Cell Carcinoma (RCC) in a Paediatric Patient: Use Of M-Tor Inhibitor as a Target Therapy**

Waqar Hameed Ghazi, Sadaf Aba Umer Kodavwala, Bashir Ahmed Qureshi, Sajid Sultan, Syed Adeeb Ul Hassan Razvi
Sindh Institute of Urology and Transplantation Karachi (SIUT). Pakistan

14:05-14:08 **Mixed Secreting Adrenocortical Carcinoma in Children: About Two Cases**

Nawal Bettioui, Salma Foura, Mariem Touraif, Najoua Aballa, Elaouni Elouafi Kamili, Karima Fouraiji, Mohamed Oulad Saiad
Cadi Ayad University/Department of General Pediatric Surgery, Mother-Child Hospital, Mohammed VI University Hospital, Marrakech. Morocco

14:08-14:11 **Bilateral Botryoid Wilms' Tumour (WT): An Unusual Presentation**

Waqar Hameed Ghazi, Sadaf Aba Umer Kodavwala, Bashir Ahmed Qureshi, Sajid Sultan, Syed Adeeb Ul Hassan Razvi
Sindh Institute of Urology and Transplantation Karachi (SIUT). Pakistan

14:11-14:15 **Discussion**

14:15-14:35 **BS7 – Rare urethral pathologies**

Chairs: Koray Ağras, Zhiwei Peng

14:15-14:20 **Sibel Tiryaki:** Bulbar urethritis: Diagnosis and treatment strategies

14:20-14:25 **Bilge Türedi Sezer:** Under-discussed rare urethral pathologies (Cowper's gland syringocele, odd lesions, etc)

14:25-14:30 **Shivaji Mane:** Urethral duplication

14:30-14:35 **Discussion**

14:35-15:00 **BS8 – Genitalia (Free papers)**

Chairs: Hamit Okur, Ebru Yeşildağ

14:35-14:38 **Treatment of Severe Congenital Dorsal Penile Curvature Using Preputial Flap: A Case Video Presentation**

Murat Alkan
Pediatric Surgery and Pediatric Urology Private Clinic, Adana. Turkey

14:38-14:41 **A Novel Technique for Concealed Penis Repair: Simplifying the Surgical Approach**

Waleed Eassa, Amr Zoair, Naser Al-Soudan (Al-Anazi)
Sabah al-Ahmad Urology Center (SAUC). Kuwait

14:41-14:44 **46 XY Denys-Drash Syndrome with Ambiguous Genitalia: Laparoscopic Hysterectomy, Unilateral Orchidectomy and Staged Fowler-Stephens Orchidopexy with Indocyanine Green Fluorescence**

Ling Leung, Chi Heng Adrian Fung, Hau Yee Ivy Chan, Kak Yuen Kenneth Wong
Department of Surgery, School of Clinical Medicine, The University of Hong Kong, Queen Mary Hospital, Hong Kong. China

14:44-14:48 **Discussion**

14:48-14:51 **Postoperative Urinary Incontinence and Management Strategies in Patients Undergoing Feminizing Genitoplasty**

Ahsen Karagözlü Akgül, Sadık Abidoğlu
Marmara University, Faculty of Medicine, Department of Pediatric Surgery, Division of Pediatric Urology, Istanbul. Turkey

14:51-14:54 **Congenital or Post-Operative Vesico-Vaginal Fistula?**

Souhila Boussoufa¹, Lounis Boudiaf²
¹ Faculté de Médecine d'Alger, Algeria, ² Faculté de Béjaïa, Algeria

14:54-15:00 **Discussion**

15:00-15:30 **Coffee Break**

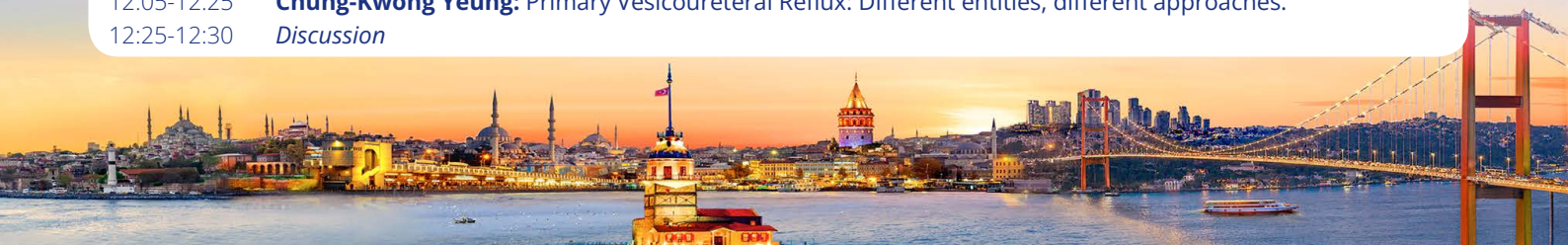


- 15:30-16:05 BS9 – Embryology, Genetic & AI (Free papers)**
Chairs: Sang Don Lee, Hasan Deliağa
- 15:30-15:35** **Development of the Human Glanular Urethra, Fossa Navicularis and Prepuce; A Histological & Immuno-Histochemical Study to understand the pathogenesis of hypospadias & megameatus**
Ahmed Hadidi¹, Ramesh Babu², Leena Dennis Joseph²
¹Sana Klinikum Offenbach GmbH, Germany, ²Sri Ramachandra Institute of Higher Education & Research, India
- 15:35-15:40** **Whole-Exome Sequencing Reveals Novel Genetic Determinants in Children with CAKUT Syndrome: From Known Panel Genes to New Candidates**
Zukhra Sabirzyanova, Andrew Pavlov, Dmitry Romanuk
Russian Scientific Center of Roentgenradiology, Russia
- 15:40-15:43** **Molecular Analysis of DNAH Gene Expression in Inguinal Hernia and Undescended Testis**
Sinan Kılıç¹, Burcu Turkgeç², Yusuf Atakan Baltrak³, Gülşah Can Güler², Halis Köylü²
¹Istanbul Okan University, Turkey, ²Üsküdar University, Turkey, ³Hatay Training and Research Hospital, Turkey
- 15:43-15:46** **Combination of Congenital Anomalies of Male Reproductive System with CAKUT- Syndrome: Unity of Embryogenesis**
Zukhra Sabirzyanova, Andrew Pavlov, Ilya Galochkin
Russian Scientific Center of Roentgenradiology, Russia
- 15:46-15:52** **Discussion**
- 15:52-15:55** **Early Diagnostic Strategies in Klinefelter Syndrome: A Retrospective Analysis of Pediatric Cases Presenting with Undescended Testis**
Dilşad Dereli¹, Baran Tokar²
¹Department of Pediatric Urology, Faculty of Medicine, Eskişehir Osmangazi University, Turkey, ²Former Professor of Pediatric Surgery and Urology, Department of Pediatric Surgery, Division of Pediatric Urology, Eskişehir Osmangazi University Faculty of Medicine, Eskişehir, Turkey
- 15:55-15:58** **AI-Assisted Two-Plane Renal Ultrasound Assessment of Hydronephrosis in Infants**
Yusuf Atakan Baltrak¹, Hasan Deliağa²
¹Adana City Hospital Department of pediatric Urology, Turkey, ²Bursa Yüksek İhtisas Education and Research Hospital, Turkey
- 15:58-16:05** **Discussion**
- 16:05–16:40 BS10 – Bladder Bowel Dysfunction (Free papers)**
Chairs: Yong Seung Lee, Sadık Abidoğlu
- 16:05-16:10** **Sleep Quality Assessment with a Smart Wristband in Children with Treatment-Resistant Monosymptomatic Nocturnal Enuresis**
Yusuf Atakan Baltrak¹, Hasan Deliağa²
¹Adana City Hospital Department of pediatric Urology, Turkey, ²Bursa Yüksek İhtisas Education and Research Hospital, Turkey
- 16:10-16:14** **Application of Transperineal Ultrasonography with Measurement of the Anterior Urethral Angle in the Diagnosis of Dysfunctional Voiding in Children**
Ekaterina Markina¹, Liudmila Menovshchikova², Zuleikha Sottaeva¹, Kovarskiy Semen², Risalat Dzhavatkhanova², Anastasia Lvova², Eduard Ayryan¹, Andrey Zakharov², Kirill Struianskii², Tatyana Sklyarova², Yulia Petrukhina², Zilim Betanov², Aleksey Tekotov², Irina Pepelyaeva²,
¹Moscow Multidisciplinary Clinical Center "Kommunarka", Russia, ²N.F. Filatov Children's City Clinical Hospital, Russia
- 16:14-16:18** **Can Urodynamic Studies Improve Diagnostic Accuracy in Children with Radiologically Equivocal Tethered Cord Syndrome?**
Yusuf Atakan Baltrak¹, Hasan Deliağa²
¹Adana City Hospital Department of Pediatric Urology, Turkey, ²Bursa Yüksek İhtisas Hospital Department of Pediatric urology, Turkey
- 16:18-16:25** **Discussion**
- 16:25-16:29** **The Effect and Comparison of Different Physiotherapeutic Techniques in Children with Neurogenic Bladder Dysfunction**
Şeyhmus Kerem Özel¹, Tuğçe Atalay², İbrahim Alataş¹
¹Demiroğlu Bilim University Spina Bifida Research Center, Turkey, ²Atalay Private Pelvic Floor Center, Turkey
- 16:29-16:33** **Efficacy and Safety of Intravesical Botulinum Toxin Type-A for Children with Refractory Idiopathic Overactive Bladder**
Zhan Wang, Jianguo Wen
Department of Urology, The First Affiliated Hospital of Zhengzhou University, Zhengzhou, China
- 16:33-16:37** **Discussion**
- 16:37-16:40** **The Method of Preparing Microcystis of Bladder Exstrophy (BE) for Delayed Primary Closure**
Andrey Rudin¹, Yuri Rudin², Yuri Chekeridi³, Artur Vardak², Djamalutdin Aliev²
¹St. Vladimir Children's State Clinical Hospital, Moscow, Russia, ²N.A. Lopatkin Scientific Research Institute of Urology and Interventional Radiology – branch of the National Medical Research Centre of Radiology of Ministry of health of Russian Federation, Moscow, Russia, ³Moscow Regional Children's Traumatology and Orthopedic Hospital, Moscow, Russia
- 16:40-16:43** **Multistage Surgical Management of a Rare Case of Ischiopagus Parasitic Twin with Caudal Duplication Anomalies**
Andrey Rudin, Yury Sokolov, Vladimir Runenko, Vsevolod Isaev
St. Vladimir Children's City Clinical Hospital, Russia
- 16:43-16:50** **Discussion**



DAY 3 Hall-A

- 08:30–09:20 AS11 – Anomalies of External Genitalia**
Chairs: Shigehiro Soh, Fatih Akbıyık
- 08:30–08:50 Phitsanu Mahawong, Selami Sözübir:**
Debate: Complex or non-palpable testis: Which approach? (Single-stage vs Fowler-Stephens vs Shehata technique)
- 08:50–09:00 Gregory E Dean:** An Alternative Management of varicoceles: A combined open antegrade access with the placement of coils in conjunction with interventional radiology
- 09:00–09:10 Kwanjin Park:** Buried penis: Conservative vs Surgical treatment: When? Whom? How?
- 09:10–09:20 Discussion**
- 09:20–10:15 AS12 – Hypospadias Challenges: Round Table**
Moderators: Gianantonio Manzoni, Abdurrahman Onen
- 09:20–09:40 Warren Snodgrass:** Distal-Proximal-Failure of Hypospadias and Curvature: Evaluation and Treatment Strategy (Indications-Timing-Type of Surgery)
- 09:40–10:00 Ahmed Hadidi:** Distal-Proximal-Failure of Hypospadias and Curvature: Evaluation and Treatment Strategy (Indications-Timing-Type of Surgery)
- 10:00–10:15 Discussion**
- 10:15–10:45 AS13 – Disorders/Differences of Sex Development/Differentiation**
Chairs: Şeref Etker, Lai Fui Boon
- 10:15–10:25 Chung-Kwong Yeung:** APAPU View/Vision
- 10:25–10:35 Alaa El Ghoneimi:** EPU View/Vision
- 10:35–10:45 Discussion**
-
- 10:45–11:00 Coffee Break**
-
- 11:00–12:05 AS14 – APAPU Marco Polo Award**
Chairs: Chung-Kwong Yeung, Sujit Chowdhary, Sajid Sultan
- 11:00–11:20 Chief guest:** Philip Ransley
- 11:20–11:25 Discussion**
- Award papers**
- 11:25–11:30 Functional MR Urography Versus Dynamic Renal Scintigraphy for Evaluation of Pediatric Obstructive Uropathy: A Systematic Review and Meta-Analysis**
Randy Fauzan, Irfan Wahyudi, Arry Rodjani, Gerhard Reinaldi Situmorang, Putu Angga Risky Raharja
RSCM-Jakarta. Indonesia
- 11:30–11:35 Quantitative Ureterovesical Junction Dysfunction Score for Predicting Failure of Primary Endoscopic Treatment in Pediatric Vesicoureteral Reflux**
Karmina Demidova
Vera Rostovskaya Sechenov University. Russia
- 11:35–11:40 Clinical Validation of a Six-Type Drainage Curve Classification System for Diuretic Renal Scans in Children with Ureteropelvic Junction Obstruction**
Jae Min Chung, Sang Don Lee, Yoon Ha Lee
Pusan National University Children's Hospital. Korea
- 11:40–11:45 Automated Interpretation of Pediatric Urodynamics Using Multimodal Artificial Intelligence**
Şeyhmus Kerem Özel¹, İlhan Aytutulu², İbrahim Alataş¹, Yusuf Sinan Akgül³
¹Demiroğlu Bilim University Spina Bifida Research Center. Turkey. ²Gebze Technical University Cybersecurity Vocational School. Turkey. ³Gebze Technical University, Department of Computer Engineering. Turkey
- 11:45–11:50 Syndromic Cryptorchidism in the Context of CAKUT: Genetic Determinants and Mechanisms Independent of Classical Endocrine Pathways**
Zukhra Sabirzyanova, Andrew Pavlov, Dmitry Romanuk
Russian Scientific Center of Roentgenradiology. Russia
- 11:50–11:55 Comparison of Transperitoneal versus Retroperitoneal Laparoscopic Pyeloplasty in Terms of Efficacy and Safety: A Systematic Review and Meta-Analysis of Pediatric Patients**
Tri Endah Suprabawati¹, Randy Fauzan², Irfan Wahyudi², Arry Rodjani³, Gerhard Reinaldi Situmorang³, Putu Angga Risky Raharja³
¹Urology Division, Budi Asih General Hospital. Indonesia, ²Urology Division- Raden Mattaher General Hospital- Indonesia, ³Department of Urology-Cipto Mangunkusumo General Hospital- Indonesia
- 11:55–12:05 Discussion**
- 12:05–12:30 AS15 – APAPU Medal Ceremony – APAPU 2026**
Chairs: Sujit Chowdhary, Abdurrahman Onen
- 12:05–12:25 Chung-Kwong Yeung:** Primary Vesicoureteral Reflux: Different entities, different approaches.
- 12:25–12:30 Discussion**





12:30-13:30 Lunch

12:40-13:20	Satellite Symposium 2 – Endourology: What is new?
12:40-13:20	Chairs: Sujit Chowdhary, Bilge Türedi Sezer
12:40-12:50	Ali Tekin: Ultra-mini Rigid Ureterorenoscopy (URS)
12:50-13:00	Ali Sezer: Retrograde Intrarenal Surgery (RIRS)
13:00-13:10	Sajid Sultan: Percutaneous Nephrolithotomy (PCNL)
13:10-13:20	Discussion

13:30-14:10 AS16 – Management of primary obstructive megaureter

Chairs: Philip Ransley, Yuichi Hasegawa, Jui Mandke

13:30-13:54 **Speakers:** Chung-Kwong Yeung, Marc-David Leclair, Berk Burgu

Debate: Balloon dilatation vs JJ-stent vs Refluxing UVJ incision vs Early reimplantation

13:54-14:10 **Discussion**

14:10-15:05 AS17 – Urinary Stone Disease: Lower pole stone

Chairs: Sibel Tiryaki, Elif Altınay Kırılı

14:10-14:18 **Michael Chua:** Extracorporeal shock wave lithotripsy (ESWL)

14:18-14:26 **Hasan Serkan Doğan:** Retrograde intrarenal surgery (RIRS)

14:26-14:34 **Bashir Ahmed Qureshi:** MiniPCNL

14:34-14:42 **Ali Sezer:** Standard Percutaneous nephrolithotomy (PCNL)

14:42-15:05 **Discussion**

15:05-15:10 AS18 – APAPU Marco Polo Award Ceremony

Chairs: Sujit Chowdhary, Abdurrahman Onen

Award: Philip Ransley

Awarding the best paper prize

15:10-15:30 Coffee Break

15:30-16:10 AS19 – Bladder-Bowel Dysfunction

Chairs: Ahsen Karagözlü Akgül, Mehmet Ali Özen

15:30-15:38 **Halil Tuğtepe:** Bladder Dysfunction

15:38-15:46 **Tutku Soyer:** Bowel Dysfunction

15:46-15:54 **Cem Irkilata:** Urotherapy (Pelvic floor rehabilitation, Biofeedback, TENS, Neuromodulation)

15:54-16:10 **Discussion**

16:10-16:47 AS20 – Novel Techniques: How I do it

Chairs: Ahmet Murat Çakmak, Murat Alkan

16:10-16:15 **Emilio Merlini:** Non ablative clitoridoplasty and glans hiding in cases of questionable gender assignment.

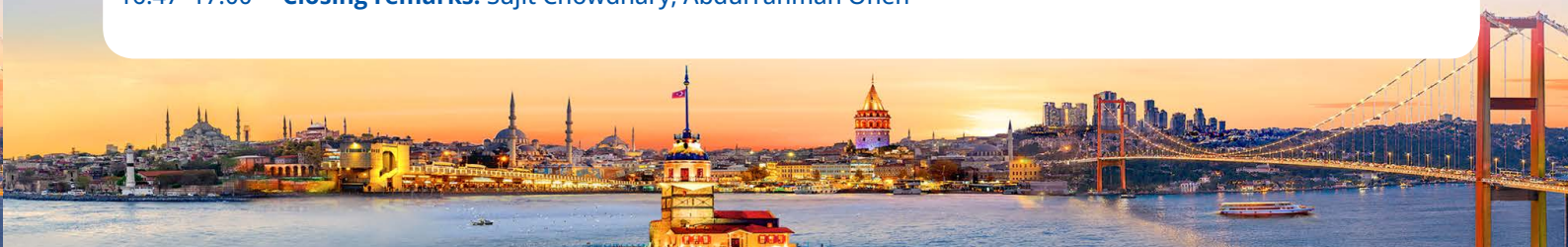
16:18-16:23 **Haluk Emir:** "Anatomical Closure" for distal hypospadias repair

16:26-16:31 **Mohd S Ansari:** Real time image fusion for augmented surgical navigation

16:34-16:39 **Ankur Mandelia:** Robotic Transvesical Ureteric Reimplantation in the Small Bladder: Technical Innovations for a Challenging Anatomy

16:42-16:47 **Ting Zhang:** Pneumovesicoscopic common-sheath ureteral reimplantation for duplex ureter with vesicoureteral reflux following ureterocele puncture

16:47-17:00 Closing remarks: Sujit Chowdhary, Abdurrahman Onen



DAY 3 Hall-B

08:00–08:35 BS11 – Ureter (Free papers)

Chairs: Yaşar Issi, Ayşegül Akbulut

08:00-08:05 **Primary Uterovesical Reconstruction Techniques for Congenital Megaureter in Children: A Systematic Review of Outcomes and Safety**

Zukhra Sabirzyanova, Andrew Pavlov, Ilia Galochkin
Russian Scientific Center of Roentgenradiology. Russia

08:05-08:10 **Stepwise Endosurgical Strategy for Uterovesical Junction Anomalies in Complete Duplex Systems**

Artur Kulaev, Oleg Shmyrov, Roman Surov, German Kozyrev, Alexey Lobach, Kirill Morozov, Diana Margieva, Marina Lazishvili, Anton Kovachich
Morozovskaya Children's City Clinical Hospital. Russia

08:10-08:15 **Discussion**

08:15-08:20 **Reconstruction of the Urinary Tract Following Uterocutaneostomy in Children with Megaureter: A Multicenter Experience**

Zukhra Sabirzyanova¹, Andrew Pavlov¹, Liudmila Deryugina²
¹ Russian Scientific Center of Roentgenradiology. Russia ² Saratov State Medical University named after. V.I. Razumovsky. Russia

08:20-08:25 **Comparative Outcomes of High-Pressure Balloon Dilatation and Ureteral Reimplantation in Primary Obstructive Megaureter: Predictive Role of the Ureter Tortuosity Index**

Kevin Kang¹, Yong Seung Lee¹, Si Uk Lee¹, Sang Won Han², Sang Woon Kim¹
¹ Yonsei University Severance Children's Hospital. South Korea, ² CHA Gangnam Medical Center, South Korea

08:25-08:30 **Uterocutaneostomy in Children with Megaureter: Urinary Diversion Does Not Guarantee Renal Functional Recovery**

Zukhra Sabirzyanova¹, Andrew Pavlov¹, Liudmila Derugina²
¹ Russian Scientific Center of Roentgenradiology. Russia, ² Saratov State Medical University named after. V.I. Razumovsky. Russia

08:30-08:35 **Discussion**

08:35-09:10 BS12 – Tips and Tricks

Chairs: Ünal Zorludemir, İrfan Dönmez

08:35-08:43 **Mohd S Ansari:** Tips and Tricks

08:47-08:55 **Ahmet Murat Çakmak:** Minimally invasive hypospadias repair

08:59-09:07 **Can Taneli:** Tubularized reconstruction plate urethroplasty, a novel technique in distal hypospadias surgery: Tips, tricks, benefits, and limits

09:11-09:19 **Tarkan Soygur:** Muscle splitting pyeloplasty in infants

09:25–09:55 BS13 – Nightmare Cases: My Worst Complication

Chairs: Cem Akbal, Sevim Yener

09:25-09:32 **Mustafa Alghanbar:** Abdominoplasty for PBS: When it goes wrong

09:35-09:42 **Liudmila Deryugina:** Unexpected risks of fetal life associated with antenatal hydronephrosis, which radically changed my views on treatment strategy.

09:45-09:52 **Sajid Sultan:** Salvaging a Kidney May Not Always Be the Best Option

09:55-10:45 BS14 – Urinary Trauma

Chairs: Shishir Sudhakar Jadhav, İlker Akyol

09:55-10:25 **Speakers:** Bashir Ahmed, Ali Tekin, Priyank Yadav

Debate: Urethral trauma: Early vs Late approach

10:25-10:45 **Discussion**

10:45–11:00 Coffee Break

11:00-11:30 BS15 – Urinary Trauma (Free papers)

Chairs: Sezen Karaca Özkısacık, Tuğçe Merve Orbay Erecan

11:00-11:05 **Laparoscopic Approach for Pelvic Fracture Urethral Injuries**

Kant Jitendra Shah, Jui Mandke, Pradeep Shenoy, Hireen Doshi
Nanavati Max & Borivali Healthcare. India

11:05-11:08 **Girls or Boys: Who Is More Likely to Be Seriously Injured? A Cohort Study of Pediatric Genital Trauma**

Ayten Ceren Bakır¹, Sadık Abidoğlu², İlayda Başar Aksu¹, Alperay Gülen¹, Özge Kılıç Bayar¹, Ahsen Karagözlü Akgül²

¹ Marmara University School of Medicine, Department of Pediatric Surgery, Turkey, ² Marmara University School of Medicine, Department of Pediatric Surgery, Division of Pediatric Urology. Turkey

11:08-11:15 **Discussion**



- 11:15-11:18 **Using A U-Shaped Skin Graft to Create a Neo-Penile Glans in Cases of Penile Injury**
Sarvar Eshonkulov, Saidanvar Agzamkhodjaev, Zafar Abdullaev, Kobiljon Ergashev, Bunyod Tilovov, Davronbek Khaltursunov
National Children's Medical Center (Tashkent). Uzbekistan
- 11:18-11:21 **Circumcision-Related Complications in Pediatric Patients: A Tertiary Center Experience**
Ayten Ceren Bakır¹, Alperay Gülen¹, Sadık Abidoğlu², Özge Kılıç Bayar¹, Ahsen Karagözlü Akgül²
¹ Marmara University School of Medicine, Department of Pediatric Surgery, Turkey; ² Marmara University School of Medicine, Department of Pediatric Surgery, Division of Pediatric Urology, Turkey
- 11:21-11:24 **Management of Kidney Trauma in Children**
 Messaouda Sadaoui¹, Souhila Boussoufa², Lounis Boudiaf³, Sidali Aichekadra¹, Linda Sadaoui⁴
¹ Faculté De Blida, Algeria; ² Faculté Alger, Algeria; ³ Faculté Béjaia, Algeria; ⁴ Faculté Oran, Algeria
- 11:24-11:30 **Discussion**

12:30-13:30 Lunch

- 13:30-14:10 **BS16 – Testis (Free papers)**
Chairs: Yusuf Atakan Baltrak, Sung Chan Park
- 13:30-13:33 **Can We Predict Which Cryptorchidism Will Descend? A Cohort Study in 976 Korean Neonates**
Yeonwoo Jeong, Hui Mo Gu, Ho Yeon Lee, Seong Hyeon Yu, Ho Seok Chung, Sun-Ouck Kim
Chonnam National University Hospital, South Korea
- 13:33-13:36 **Scrotal Orchidopexy: Can Distal Simple Closure (DiSC) fix Patent Processus Vaginalis (PPV) without Inguinal Incision?**
Waleed Eassa, Amr Zoair, Hisham Elbana, Naser Al-Soudan (Al-Anazi)
Sabah al-Ahmad Urology Center (SAUC), Kuwait
- 13:36-13:39 **Evaluation of Long-Term Outcomes of Patients Who Underwent Laparoscopic Orchiopexy with the Fowler–Stephens Technique for Non-Palpable Testis Using Scrotal Elastography**
 Khalil Guliyev¹, Sadık Abidoğlu², İftikhar Manafov³, Ahsen Karagözlü Akgül²:
¹ Marmara University School of Medicine, Department of Pediatric Surgery, Turkey; ² Marmara University School of Medicine, Department of Pediatric Surgery Division of Pediatric Urology, Turkey; ³ Marmara University School of Medicine, Department of Radiology, Turkey
- 13:39-13:42 **Refining Redo Orchiopexy: The Role of 3-Month Clinical Assessment and a Scrotal-First Approach in Recurrent Undescended Testis**
Dilşad Dereli¹, Baran Tokar²
¹Department of Pediatric Urology, Faculty of Medicine, Eskişehir Osmangazi University, Turkey; ² Former Professor of Pediatric Surgery and Urology, Department of Pediatric Surgery, Division of Pediatric Urology, Eskişehir Osmangazi University Faculty of Medicine, Eskişehir, Turkey
- 13:42-13:50 **Discussion**
- 13:50-13:53 **Manual Testicular Detorsion by Emergency Clinicians**
D. Preston Smith MD, Andrew Wofford, Rhys Irvine, Jacqueline Morin, Dante Pappano
University of Tennessee Medical Center Knoxville and Dolly Parton Children's Hospital, Knoxville Tennessee, USA
- 13:53-13:56 **Clinical Outcomes and Operative Findings After Manual Detorsion in Acute Testicular Torsion: Residual Torsion Is Common**
Kyeong Kim
Chungbuk National University Hospital, South Korea
- 13:56-14:00 **Discussion**
- 14:00-14:03 **Application of Domestic Single-Port Serpentine Arm System in High Ligation for Adolescent Varicocele**
Wang Jun, Guo Yunfei, Ge Zheng
Children's Hospital of Nanjing Medical University, China
- 14:03-14:06 **Active Surveillance of Discontinuous-type Splenogonadal Fusion.**
 Naser Al- Soudan Al-Anazi, Kareem Alqahwaji, Amr zoair, Waleed Eassa
Sabah Al-Ahmad Urology Center, Kuwait
- 14:06-14:10 **Discussion**



DAY 3 Hall-B

14:10-14:30 **BS17 – Hypospadias (Free papers)**

Chairs: Egemen Eroğlu, İlker Zeki Arusoğlu

14:10-14:13 **How Hypospadias Surgery Evolved Over the Last 15 Years: A Global survey**

Michael Sennert¹, Alexander Springer², Mohamed Fawzy¹, Johannes Wirmer¹, Carsten Graumann¹, Ahmed Hadidi¹

¹Sana Klinikum Offenbach, Germany, ²Medizinische Universität Wien, Austria

14:13-14:16 **Corpus Spongiosum Reconstruction in Hypospadias Treatment: Clinical Value and Research**

Yichen Huang

Shanghai Children's Hospital, China

14:16-14:20 **Discussion**

14:20-14:23 **Lateral Based Onlay for Recurrent Hypospadias Surgery (LABOR); A Multicentre Study**

Mohamed Fawzy¹, Michael Sennert¹, Marios Marcou², Ramesh Babu³, VVS Chandrasekharam⁴, Carsten Graumann¹, Ahmed Hadidi¹

¹ Sana Klinikum Offenbach, Germany, ² Krankenhaus Barmherzige Bruder, Regensburg, Germany, ³ Sri Ramachandra Institute of Higher Education and Research, India,

⁴ Ankura hospitals for women and children, India

14:23-14:26 **Can Massage Replace the Knife? The Role of Post-Operative Steroid-Assisted Massage in Correcting Residual Chordee in Hypospadias**

Mohamed Fawzy, Michael Sennert, Carsten Graumann, Ahmed Hadidi

Sana Klinikum Offenbach, Germany

14:26-14:30 **Discussion**

14:30–15:10 **BS18 – Miscellaneous (Free papers)**

Chairs: Guanghua Zhu, Çiğdem Arslan Alici

14:30-14:35 **Early Outcomes of Anatomical Repair with External Corporal Rotation for Primary Male Epispadias: A Case Series**

Mahmoud Marei Abdelaziz Marei¹, Mohamed Abdellatif¹, Hanan Said, Moemen Farouk², Mohamed Qinawy³, Hadeer Nasreldin¹

¹ Cairo University Hospitals and Faculty of Medicine, Egypt, ² King's College London Hospital, Jeddah, Cairo, ³ University Hospitals and Faculty of Medicine, Egypt

14:35-14:38 **Differentiated Approach to Pelvic Osteotomy in Bladder Exstrophy**

Yuri Rudin¹, Yuri Chekeridi², Nikola Stanoevich³, Djamalutdin Aliiev⁴, Andrey Rudin⁵

¹ Branch of the National Medical Research Centre of Radiology of Ministry of health of Russian Federation, Moscow, Russia, ² Moscow Regional Children's Traumatology and Orthopedic Hospital, Moscow, Russia, ³ Urogenital Center-MSB Hospital, Belgrade, Serbia, ⁴ N.A. Lopatkin Scientific Research Institute of Urology and Interventional Radiology – branch of the National Medical Research Centre of Radiology of Ministry of health of Russian Federation, Moscow, Russia, ⁵ Moscow Children's State Clinical Hospital of St. Vladimir, Moscow, Russia

14:38-14:41 **Management of Pregnancy and Delivery in Female Patients After Augmentation Cystoplasty: The operation method considering pregnancy and delivery**

Atsuko Sato¹, Hiroshi Asanuma¹, Mizuki Izawa², Shun Iwasa², Taiju Hyuga³, Hiroyuki Satoh², Kimihiko Moriya³, Hideo Nakai³

¹ Keio University School of Medicine, Japan, ² Tokyo Metropolitan Children's Medical Center, Japan, ³ Jichi Children's Medical Center, Japan

14:41-14:45 **Discussion**

14:45-14:48 **Posterior Urethral Polyp: Diagnostic Pathway and Critical Surgical Nuances.**

Dilşad Dereli, Baran Tokar

Department of Pediatric Urology, Faculty of Medicine, Eskişehir Osmangazi University, Turkey

14:48-14:51 **Frequency and Risk Factors of Urinary Tract Infection in Pediatric Patients Undergoing Double-J Stent Placement**

Dilşad Dereli, Baran Tokar

Department of Pediatric Urology, Faculty of Medicine, Eskişehir Osmangazi University, Turkey

14:51-14:54 **Fungus Ball in The Urinary System as a Cause of Mortality And Morbidity.**

Sadık Abidoğlu¹, İlayda Başar Aksu², Ayten Ceren Bakır², Ahsen Karagözlü Akgül¹

¹ Marmara University School of Medicine, Department of Pediatric Surgery Division of Pediatric Urology, Turkey. ² Marmara University School of Medicine, Department of Pediatric Surgery, Turkey

14:54-14:58 **Discussion**

15:00–15:30 **Coffee Break**

15:00-16:45 **APAPU Board Meeting**



Refreshment (Coffee Break) Area

P1 - A National Screening Program for Undescended Testis in Preschool Boys

Naser Al Anazi, Kareem Alqahwaji, Amr Zoair, Waleed Eassa

Sabah Al-Ahmad Urology Center. Kuwait

P3 - Artificial Intelligence-Assisted Patient Education: Unlocking ChatGPT's Potential in Congenital Hydronephrosis Awareness

Muhammad Albari Akbar¹, Putu Angga Risky Raharja¹, Gerhard Reinaldi¹, Irfan Wahyudi¹, Arry Rodjani¹, Adham Elsaied², Michael Chua³, Ramesh Babu⁴, V.V.S. Chandrasekharam⁵, Tariq Abbas⁶

¹ Department of Urology, Faculty of Medicine, Universitas Indonesia, Cipto Mangunkusumo Hospital. Indonesia. ² Department of Pediatric Surgery, Mansoura University Children's Hospital. Mansoura Egypt. ³ Department of Urology, The Hospital for Sick Children, Toronto, Ontario. Canada. ⁴ Department of Pediatric Urology, Sri Ramachandra Institute of Higher Education & Research, Chennai. India. ⁵ Department of Pediatric Surgery, Pediatric Urology & MAS, Rainbow Children's Hospitals, Hyderabad, Telangana. India. ⁶ Urology Division, Sidra Medicine & College of Medicine, Qatar University, Doha. Qatar.

P4 - Beyond Pneumoperitoneum: Alternative and Innovative Uses of the Veress Needle - A Systematic Review

Zita Hornok

Independent Researcher. Hungary

P5 - Bilateral Megaureter in Children: Why Isolated Relief of Infravesical Obstruction Is Insufficient — A Prospective Study of 189 Patients

Zukhra Sabirzyanova, Andrew Pavlov

Russian scientific center of roentgenradiology. Russia

P6 - Can Artificial Intelligence-Based ChatGPT Enhance Patient Education in Undescended Testis Cases?

Muhammad Albari Akbar¹, Putu Angga Risky Raharja¹, Gerhard Reinaldi Situmorang¹, Irfan Wahyudi¹, Arry Rodjani¹, Yousuf Al-Shaqsi², Pankaj P. Dangle³, Sheyma Al-Romaihi⁴, Fayza Haider⁵, Alexander Springer⁶, Tariq Abbas⁷

¹ Department of Urology, Faculty of Medicine, Universitas Indonesia, Cipto Mangunkusumo Hospital. Indonesia. ² Department of Pediatric Surgery, Sultan Qaboos University Hospital, Muscat, Oman. ³ Department of Pediatric Urology, Children's Hospital of Pittsburgh, The University of Pittsburgh Medical Center, USA. ⁴ Department of Surgery, Hamad Medical Corporation, Doha, Qatar. ⁵ Department of Surgery, Salmaniya Medical Complex, Arabian Gulf University, Manama, Bahrain. ⁶ Department of Pediatric Surgery, Medical University of Vienna, Vienna, Austria. ⁷ Urology Division, Sidra Medicine & College of Medicine, Qatar University, Doha, Qatar

P7 - Complete Transverse Transection of the Bladder Neck Following Blunt Pelvic Trauma in a Child: A Case Report

Salma Foura, Najoua Aballa, Mariem Touraif, Elouafi Elaoui Kamili, Karima Fouraiji, Mohamed Oulad Saiad

Cadi Ayad University/Department of General Pediatric Surgery, Mother-Child Hospital, Mohammed VI University Hospital, Marrakech. Morocco

P8 - Concomitant Obstruction of the Pyeloureteric Junction in infants

Vasily Shumikhin, Marina Levitskaya, Liudmila Menovshikova, Nadezhda Erokhina, Ailana Sat, Elizaveta Melkumjan, Maria Boguslavskaya

N.F.Filatov Children's City Hospital. Russia

P9 - Could Vitamin B12 Deficiency be an Underlying Cause of Non-Neurogenic Neurogenic Bladder?

Sadık Abidoğlu¹, İsmail Demiryorgan², Ahsen Karagözlü Akgül¹

¹ Marmara University, Faculty of Medicine, Department of Pediatric Surgery, Division of Pediatric Urology. Turkey. ² Marmara University, Faculty of Medicine, Department of Pediatric Surgery. Turkey

P10 - Development, External Validation and Nomogram Analysis of a Prediction Model for 3-Month First-Line Treatment Outcomes in Pediatric Nocturnal Enuresis: A Two-Center Retrospective Study

Sida Shao, Zhichen Xu, Weizhen Liu, Qingwei Wang, Yibo Wen, Jianguo Wen

Department of Urology, The First Affiliated Hospital of Zhengzhou University. Zhengzhou, China. Department of Pediatric Surgery, The First Affiliated Hospital of Henan Medical University, Xinxiang, China

P12 - Ectopic Ureteral Opening

Messaouda Sadaoui¹, Souhila Boussoufa², Lounis Boudiaf³

¹ Faculté De Blida. Algeria, ² Faculté D'alger, ³ Faculté Béjaia

P13 - Effect of Transcutaneous Tibial Electrical Nerve Stimulation on Bladder Function in Children with Overactive Bladder

Zichao Feng¹, Qingwei Wang¹, Zhan Wang¹, Yibo Wen¹, Sida Shao², Zhengguang Zhang¹, Jing Yang¹, Jianguo Wen¹

¹ Department of Urology, The First Affiliated Hospital of Zhengzhou University, Zhengzhou, China. ² Department of Pediatric Surgery, The First Affiliated Hospital of Henan Medical University, Xinxiang, China

P14 - Evaluation of Bladder Function in Patients with Anorectal Malformations

Sadık Abidoğlu¹, Ayten Ceren Bakır², Kıvılcım Karadeniz Cerit², Ahsen Karagözlü Akgül¹

¹ Marmara University, Faculty of Medicine, Department of Pediatric Surgery, Division of Pediatric Urology. Turkey. ² Marmara University, Faculty of Medicine, Department of Pediatric Surgery. Turkey

P15 - Evaluation of Urogenital Anomalies and Functional Urological Disorders in Children with Cerebral Palsy

Dilşad Dereli¹, Kürşat Bora Çarman¹, Baran Tokar²

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P16 - Free Video Uroflowmetry and Its Role in Evaluating Neurogenic Bladder in Children

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Aylin Duriye Çevikel¹, Doğan Yigit¹, Ezgi Akpınar Şahin², Şeyma Nur Atçı¹, Duygu Gürel Keten¹, Ali İhsan Dokucu¹

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Guangyu Zhu, GaoFeng Zhang, Ming Bai

Xi'an Children's Hospital, China

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Naser Al-Soudan Al-Anazi¹, Zeni Haveliwala², Abraham Cherian²

¹ Sabah Al-Ahmad Urology Center, Kuwait, ² Great Ormond Street Hospital, London, United Kingdom

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Oleg Shmyrov, Kirill Morozov

Morozov Children's City Clinical Hospital of the Moscow City Healthcare Department, Russia

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Yuri Rudin, George Lagutin, Artur Vardak, Djmalutdin Aliev, Diamid Marukhnenko

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Hopital Mere Enfant, CHU Med VI, UCA, Morocco

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Linda Sadaoui¹, Souhila Boussoufa², Lounis Boudiaf³, Fatima Zohra Rahmouni⁴, Sidali Aichekadra⁵, Mohamed Bensalma⁵, Messaouda Sadaoui⁵

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Kevin Kang¹, Sang Woon Kim¹, Si Uk Lee², Jae Ok Baek², Hyun Jin Jung¹, Sang Won Han³, Yong Seung Lee¹

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Galina I. Kuzovleva¹, Marina D. Vasil'eva², Julia V. Savel'eva³

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Ying Zhang, Haichen Chen

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Nikolay Khvatynets¹, Dmitriy Morozov², Galina Kuzovleva¹, Oleg Staroverov¹,

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Sadık Abidoğlu, Ahsen Karagözlü Akgül

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CITATION

Chung Kwong Yeung

Prof Chung-Kwong Yeung, Founder & Past President of Asia Pacific Association of Pediatric Urologists, is a pioneer and world-renowned Pediatric Urologist. Over the last three decades, he has changed the landscape of Pediatric Urology and Minimally Invasive Surgery (MIS) practice in the world, and especially in the Asia Pacific region, with his work from Hong Kong. Prof Yeung was Presidential Chair Professor and Chair Chief of Pediatric Urology & Pediatric Surgery at the Chinese University of Hong Kong (SZ, HK). He is Past President of the International Pediatric Endosurgery Group (IPEG), Past President of the International Children Continence Society (ICCS), and Past President of the HK College of Surgeons. He is also well known to have pioneered Asia's first pediatric live-related liver transplantation program in Hong Kong as early as 1993.

Before his lifetime career at the Chinese University of Hong Kong, he carried his initial work at Great Ormond Street with Prof Phillip Ransley on primary vesicoureteral reflux, the evolution of bladder functions in early infancy, and enuresis, leading onto his MD as well as PhD doctoral thesis. In the field of Pediatric Urology, he has made fundamental contributions to the deeper understanding of primary vesicoureteral reflux and has developed the now popular pneumovesicoscopic ureteric reimplantation technique. He also pioneered the world's first laparoscopic bladder neck reconstruction under CO2 pneumovesicum, as well as developed laparoscopic excision for choledochal cysts and Kasai's portoenterostomy for biliary atresia in infants, way ahead of others in our continent. Across specialties, he developed the first natural orifice (NOTES) robotic surgery program with gynecological surgeons in Hong Kong way ahead of others in the world. He was the first surgeon introducing robotics technologies to Hong Kong and Mainland China as early as 1998. As the Founding Director, he has established the Hong Kong Jockey Club CUHK Minimally Invasive Training Institute, a world-renowned institution for training of surgeons in the field of robotics and laparoscopic surgery, that was equipped with the first da Vinci robot in HK & China back in 2005.

While busy with clinical work, he remained active in the field of innovation, especially in miniaturization of robotic platforms and MIS devices. He is the chief inventor of over 120 granted invention patents internationally. Many of his inventions are in popular clinical use, including the first and the simplest Yeung's hernia hook that is used extensively for laparoscopic extraperitoneal hernia repairs in infants and young children.

During his three decades of clinical practice at the world famous CUHK & Prince of Wales University teaching hospital, he has mentored numerous fellows from USA, UK, Europe, Australia, China, India, Japan, Korea, various ASEAN states, etc. These fellows had a chance to learn from Prof Yeung's pioneering skills & experience and take-home new MIS & robotics surgical skills and become leaders in the field of laparoscopic and robotic surgery.

Prof. Yeung has contributed over 300 peer reviewed publications including prestigious journals like New England Journal of Medicine, Lancet, etc. He has been a regular reviewer and member of the editorial board of various prestigious journals. He has authored 30 book chapters in different textbooks in MIS & Pediatric Urology.



ABSTRACTS

ORAL PRESENTATIONS



Hydronephrosis

Beyond Size: Predictors of Renal Salvageability in Pediatric Giant Hydronephrosis — A Roc Analysis

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Aim: Giant hydronephrosis (GH) in children may present with severe parenchymal thinning and impaired renal function, creating a dilemma regarding renal preservation versus nephrectomy. We evaluated factors associated with renal salvageability in pediatric GH. Materials and Methods Children diagnosed with GH between 2020–2025 at two tertiary pediatric urology centers were retrospectively reviewed. Anteroposterior pelvic diameter (APD), pelvic volume, renal parenchymal thickness, differential renal function (DRF), treatment modality, and follow-up outcomes were analyzed. ROC analysis was performed to identify predictors of nephrectomy.

Results: Twenty-five children were identified (20 boys, 5 girls) with a mean age of 39.3 months. Pyeloplasty was performed in 21 patients and nephrectomy in 4. Compared to the pyeloplasty group, nephrectomy patients had significantly greater APD (75.8 vs 45.0 mm, $p=0.003$), lower DRF (2.8% vs 37.8%, $p=0.002$), and thinner renal parenchyma (0.75 vs 3.2 mm, $p=0.016$). ROC analysis demonstrated excellent predictive ability for DRF (AUC=1.00) and APD (AUC=0.98). During a mean follow-up of 1.5 years, renal function remained stable in all pyeloplasty patients.

Conclusion: Morphologic severity alone should not be considered an absolute indicator of irreversible renal damage in pediatric GH. Residual renal parenchyma appears more valuable than hydronephrosis size alone in determining renal salvageability.

Long-term Validation of Early Postoperative APD Reduction as a Predictor of Laparoscopic Pyeloplasty Success in Infants

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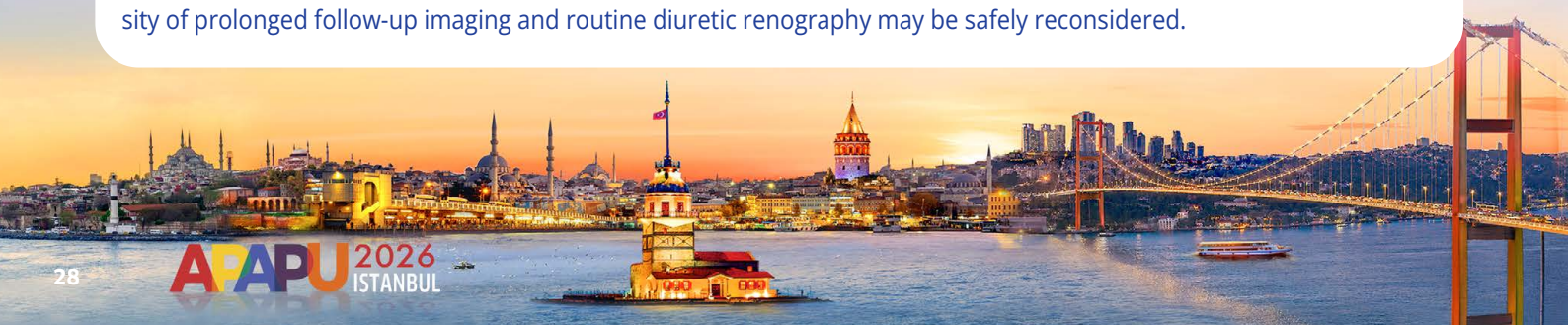
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Aim: To determine whether a 3-month anteroposterior diameter reduction (PR-APD) $\geq 42\%$ reliably predicts long-term success following laparoscopic pyeloplasty in infants.

Materials and Methods: This single-centre retrospective study included 201 infants (<1 year) with $\geq 42\%$ 3-month PR-APD and unobstructed diuretic renograms. Over a follow-up period of 5 years, longitudinal APD trajectories were evaluated using linear mixed-effects (LME) models, paired t-tests, and regression analysis.

Results: All patients remained asymptomatic. LME modelling demonstrated significant time-dependent APD reduction ($F=79.7$, $p < 0.001$; $\beta = -2.72$ mm per year), followed by a positive quadratic effect ($\beta=0.35$, $p<0.001$), confirming a stable morphological plateau. No significant difference was observed between the 3-month and ≥ 5 -year APD measurements ($t = -1.21$, $p = 0.227$) with a negligible effect size (Cohen's $d = 0.11$), confirming long-term stability. Regression analysis established early postoperative status as a statistically significant predictor of long-term outcomes ($R^2 = 0.14$, $p < 0.001$). While ANOVA showed minimal inter-period variance ($\eta^2 = 0.02$, $p<0.001$), APD remained consistently and significantly below preoperative baselines.

Conclusion: At least 42% PR-APD is a reliable predictor of permanent surgical success. In the low-risk group, the necessity of prolonged follow-up imaging and routine diuretic renography may be safely reconsidered.



Impact of Diagnostic Retrograde Pyelography and Selective JJ Stenting on Pyeloplasty Decision-Making in Pediatric Ureteropelvic Junction Obstruction

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Objective: To determine whether diagnostic retrograde pyelography (RPG) with selective JJ stent placement influences the indication and timing of pyeloplasty in children with suspected ureteropelvic junction obstruction (UPJO).

Methods: We retrospectively reviewed children aged 3 months to 18 years evaluated for UPJO between January 2014 and July 2023. Among 850 patients, 256 underwent RPG; 176 with data were analyzed. The indication for RPG was based on ultrasonographic severity, anteroposterior pelvic diameter, calyceal dilatation, parenchymal thinning, reduced differential renal function on MAG3/DTPA scintigraphy, and delayed diuretic response. During RPG, ureteral morphology, ureteropelvic insertion angle, aberrant compression, calyceal dilatation, and delayed contrast drainage were assessed. JJ stents were inserted selectively.

Results: Pyeloplasty was performed in 102/176 patients (57%). In 74/176 patients (43%), hydronephrosis regressed after JJ removal during long-term follow-up, and surgery was avoided. These findings suggest that RPG plus JJ drainage can identify a subgroup with functional or developmentally immature obstruction who may improve without pyeloplasty. In patients who later required surgery, prior stenting appeared to facilitate reconstruction by passive ureteral dilatation.

Conclusion: RPG with selective JJ stenting may refine decision-making in pediatric UPJO by distinguishing patients requiring pyeloplasty from those suitable for observation and by optimizing ureteral caliber before anastomosis.

Management Strategies of Pediatric Congenital Hydronephrosis. Cross-Sectional Survey in The Russian Federation

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Aim: Congenital hydronephrosis is a common pediatric urological condition. Despite international and national guidelines, a unified standardized management strategy is still lacking, particularly across heterogeneous health-care settings. This study represents one of the first nationwide assessments of real-world practice variability.

Methods: A cross-sectional survey was conducted among 102 medical practitioners across the Russian Federation using a structured questionnaire. Diagnostic approaches, surgical indications, operative techniques, and perioperative management strategies were analyzed.

Results: Distinct variability was identified among participants, reflecting substantial discrepancies in patient management approaches. Although most respondents reported adherence to current guidelines, their application is highly individualized and dependent on local resources and experience. Significant differences were observed in follow-up protocols, timing and criteria for surgical intervention, treatment selection. Conservative management predominated in the early stages, while adoption of minimally invasive techniques was inconsistent and not standardized. Approaches to antibiotic therapy, urinary drainage, and follow-up also lacked uniformity. Overall complication rates were low. However, recurrence and anastomotic failure remained relevant clinical issues.

Conclusions: These findings provide the first systematic national-level evidence of variability in clinical practice and highlight the need for standardized clinical algorithms. The results support the development of consensus-based guidelines to improve the quality of medical care

Clinical Features of late-presenting UPJ Obstruction in Children and Adolescents Undergoing Laparoscopic Pyeloplasty

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Purpose: To characterize the clinical features of late-presenting UPJO in children and adolescents undergoing laparoscopic pyeloplasty.

Patients and Methods: We retrospectively reviewed consecutive patients aged 6–18 years who underwent laparoscopic pyeloplasty. Patients were stratified by preoperative differential renal function (DRF <40% vs. ≥40%). Variables compared included sex, age, prenatal diagnosis, symptom duration, laterality, timing of surgery, and operative etiology (intrinsic obstruction, crossing vessel, fibroepithelial polyp, high UPJ insertion). Timing was classified as immediate after diagnosis, delayed after follow-up or diagnosis and surgery occurring more than 6 months after symptom onset.

Results: Of 59 patients, 19 had decreased and 40 (67.8%) preserved renal function. Flank pain was the most common presentation (83.1%); Crossing vessels were identified in 24 patients (40.7%). Mean DRF was $20.1 \pm 11.3\%$ versus $49.4 \pm 3.6\%$. Decreased-function patients were significantly more likely to have been diagnosed more than 6 months after symptom onset (57.9% vs. 15.4%, $p=0.005$). Crossing vessels were more frequent in the decreased-function group (57.9% vs. 32.5%, $p=0.111$).

Conclusion: Late-presenting UPJO in older children should not be presumed functionally benign. Delayed diagnosis was more strongly associated with renal deterioration than operative etiology. Prompt imaging is warranted in children and adolescents with flank pain.



Comparison of Transperitoneal versus Retroperitoneal Laparoscopic Pyeloplasty in Terms of Efficacy and Safety: A Systematic Review and Meta-Analysis of Pediatric Patients

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Background and Objective: Laparoscopic pyeloplasty is the standard treatment for pediatric ureteropelvic junction obstruction, yet the choice between transperitoneal (LT) and retroperitoneal (LR) approaches remains debated. This review aimed to compare the efficacy and safety of LT versus LR and identify sources of heterogeneity.

Methods: A PRISMA-based systematic review was conducted using PubMed, Cochrane Library, Google Scholar, and clinical registries up to June 2025. Using the PICO framework, pediatric patients with ureteropelvic junction obstruction undergoing LT versus LR were evaluated for success rate, operative time, complications, conversion rate, and hospital stay. Data were pooled using random-effects meta-analysis, with meta-regression and spline analyses to explore heterogeneity ($I^2 > 90\%$).

Results: Six studies (1 RCT, 5 retrospective) were included. No significant differences were found in success rate, complications, or conversion rates. High heterogeneity was observed in operative time and hospital stay. Meta-regression showed study design influenced operative time ($p=0.035$), while country explained hospital stay variation ($p=0.013$). Spline analysis suggested higher conversion risk in patients <2.06 years.

Conclusions and Clinical Implications: LT and LR show comparable safety and efficacy. Outcome variability is mainly driven by study design and regional practices. Both approaches are acceptable, but caution is needed in children under two years.

The Evaluation of the Effectiveness of Ante - and Postnatal Treatment of Patients with Severe Forms of Obstructive Uropathy

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The aim of the study is: to evaluate the effectiveness of ante-postnatal treatment of patients with obstructive uropathy.

Materials and Methods: Unilateral nephro-amniotic shunting was performed on 8 fetuses 20-32 weeks gestation with isolated hydronephrosis IV (Onen2016). 2 fetuses at 20 and 32 weeks of gestation with bilateral hydronephrosis III-IV megaureters, enlarged bladder underwent bilateral nephro-amniotic and vesico-amniotic shunting.

Results: Postnatal examination of patients with antenatal isolated hydronephrosis confirmed the presence of UPJO in 7 neonates, they underwent pyeloplasty and surgical treatment was not required in 1 newborn. Late manifestation of posterior urethral valves (PUV) was confirmed in 2 fetuses with bilateral hydronephrosis and megaureters. The positive effect of vesico-amniotic and bilateral nephro-amniotic shunting was noted. Postnatally minimal damage to the upper urinary tract was detected, only surgical ablation of the valves was required.

Conclusion: Nephro-amniotic shunting in fetuses with hydronephrosis IV allowed to perform pyeloplasty with restoration of the function of the kidney, and in a 20-week fetus prevented the formation of UPJO. In fetuses with late manifestation of PUV a positive effect was noted from vesico-amniotic and bilateral nephro-amniotic shunting, which allowed minimizing damage to the upper urinary tract and limiting postnatal surgical treatment to valve ablation only.

Uro-Oncology

Tuberous Sclerosis Complex (Tsc) With Bilateral Renal Cell Carcinoma (Rcc) in a Paediatric Patient: Use Of M-Tor Inhibitor as a Target Therapy.

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Purpose: RCC is rarely associated with TSC in children. We report a case of TSC with RCC in a seven-year-old girl with bilateral renal involvement and its management with targeted therapy with mammalian target of Rapamycin-inhibitor (mTOR-inhibitor) "Everolimus".

MATERIAL AND METHODS: A seven-year-old girl presented with hematuria and abdominal distention. History of seizures at 6 months of life. Examination findings: fascial angiofibroma, dental enamel pits, hypomelanotic macules, periungual fibroma and shagreen patch. Palpable mass on the left side of abdomen. CT-Scan showed bilateral heterogeneously enhancing renal masses (left larger than right), and one small angiomyolipoma (AML) in segment-III of liver. MRI-brain demonstrated multiple cortical, subcortical tubers and subependymal hamartomas.

Results: Diagnosis of TSC with Bilateral renal masses is established. Nephrectomy of a left non functioning kidney with huge mass was performed, which showed "papillary renal cell carcinoma". Nephron-sparing surgery was not possible in the right kidney, decided to start targeted medical management with mTOR-inhibitor, everolimus. Over 4-months, 50% reduction in the right renal mass. She has been on Tab. everolimus for the last-seven-years, without any significant side effects. Right renal mass is stable in size, and Fascial angiofibroma has decreased.

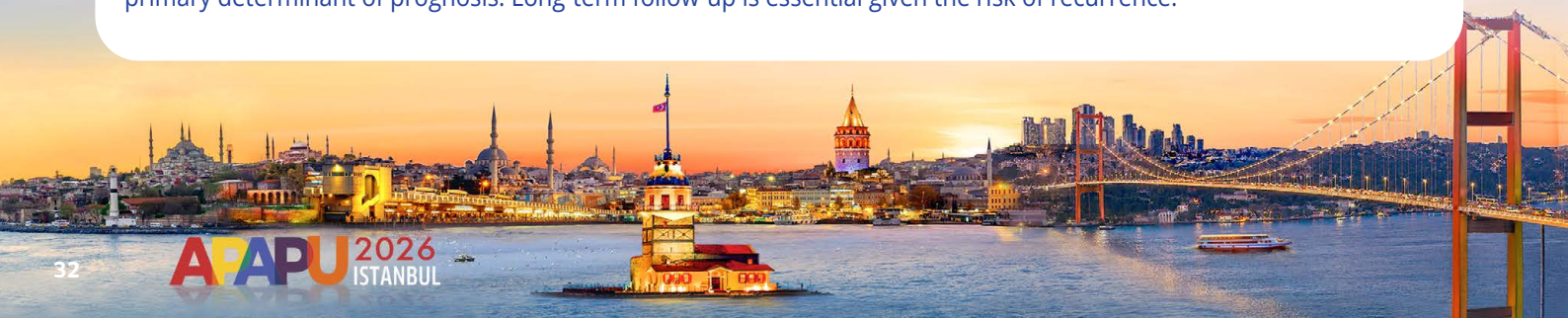
Conclusions: RCC associated with TSC is extremely rare in children. Everolimus provided durable tumor control while preserving renal function and improving other TSC manifestations.

Mixed Secreting Adrenocortical Carcinoma in Children: About Two Cases

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Pediatric adrenocortical carcinoma (ACC) is a rare but potentially aggressive tumor, typically presenting with hormonal hypersecretion syndromes. Mixed secreting forms, combining hyperandrogenism and hypercortisolism, are particularly uncommon in young children. We report two cases of ACC in girls aged 15 months and 3 years. Both presented with signs of hyperandrogenism, including premature pubic hair development and clitoral hypertrophy, along with a palpable left hypochondrial mass. Biochemical workup confirmed mixed hormonal hypersecretion in both patients. The 15-month-old additionally exhibited preoperative hypertensive episodes and a suspicious right sacral bone lesion on staging work-up, whereas the 3-year-old had no hypertensive episodes or identifiable metastatic disease. Both patients underwent left adrenalectomy with macroscopically complete tumor resection. Histopathological examination confirmed secreting ACC in both cases. The postoperative course was uneventful in both patients, with favorable outcomes under clinical, biochemical, and radiological surveillance. Pediatric ACC should be considered in any child presenting with hyperandrogenism associated with an adrenal mass. Complete surgical resection remains the cornerstone of treatment and the primary determinant of prognosis. Long-term follow-up is essential given the risk of recurrence.



Bilateral Botryoid Wilms' Tumour (WT): An Unusual Presentation

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Purpose: Botryoid WT is a rare entity and bilateral is extremely rare. We present the case of bilateral botryoid WT presented with oligo-anuria and acute renal failure. MATERIAL AND METHODS

Two and a half-year-old-boy presented with vomiting, oligo-anuria and generalized-edema.

Results: Investigations showed Hb=5.4gm% and renal failure, Creatinine=5.25mg%. An ultrasound showed bilaterally enlarged kidneys with moderate hydronephrosis and echogenic material filling the pelvicalyceal-system (PCS). Non-contrast-CT-scan confirmed these findings of hyperdense material inside the PCS with streak of left perinephric collection. After two sessions of hemodialysis bilateral percutaneous nephrostomies were placed to relieve the obstruction. No urine output and no renal function improvement seen, Right renal exploration revealed a polypoid mass occupying the renal-pelvis and extending into the mid-ureter without obvious ureteric-wall attachment. Complete enucleation was performed, and histopathology confirmed classic WT, post-operatively, urine output and renal-function slightly improved. Follow-up CT showed complete-clearance of the right-sided lesion, persistent left-sided disease, and no pulmonary-metastases. A diagnosis of bilateral localized botryoid-WT was made, and chemotherapy was initiated. After four cycles, left-sided debulking surgery was planned.

Conclusions: This is an extremely rare case of bilateral botryoid WT presented with acute-renal-failure. Botryoid-WT should be included in the differential-diagnosis of a young child presented with oliguria and renal failure with echogenic/hyperdense material on ultrasound and CT-scan.

Minimal Invasive Surgery

Clinical Experience of Robot-Assisted Lich-Gregoir Ureteric Reimplantation in Infants with UVJO

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Objective: To evaluate the clinical efficacy of a modified robot-assisted Lich-Gregoir (LG) ureteric reimplantation technique for treating ureterovesical junction obstruction (UVJO) in infants.

Methods: We retrospectively reviewed 25 infants (aged < 1 year) who underwent robot-assisted LG ureteric reimplantation for UVJO between January 2022 and May 2026. A modified LG approach was utilized. By strategically altering the anatomical location of the ureterovesical anastomosis, the procedure was specifically designed to optimize urodynamics and achieve a strictly low-tension repair.

Results: All 25 procedures were completed successfully with highly favorable outcomes. The repositioning of the anastomosis effectively satisfied both fluid dynamic requirements and the principle of tension-free anastomosis. Postoperative follow-ups demonstrated a high success rate in resolving the obstruction, evidenced by significant relief of hydronephrosis. No major complications, such as secondary vesicoureteral reflux or recurrent stricture, were observed in this cohort.

Conclusion: The robot-assisted modified LG ureteric reimplantation is a safe and highly effective surgical option for infants with UVJO. Optimizing the anastomotic site to meet fluid dynamic and low-tension principles is crucial for ensuring excellent surgical outcomes and long-term renal preservation.

Clinical Outcomes of Robot-Assisted Laparoscopic Extravesical Common Sheath Ureteral Reimplantation in Refluxing Duplex Ureters

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Introduction: We evaluated the clinical efficacy and safety of robot-assisted laparoscopic extravesical common sheath ureteral reimplantation (R-CURE) using a non-dismembered technique for patients with duplex ureters and vesicoureteral reflux (VUR).

Materials and Methods: We retrospectively reviewed 11 patients (8 pediatric, 3 adult) who underwent R-CURE between 2021 and 2024 at a single tertiary institution. All procedures were performed via a transperitoneal approach using the da Vinci system. Surgical outcomes, split renal function changes, and postoperative complications via the Clavien-Dindo classification were analyzed.

Results: The mean age at surgery was 23.8 months for pediatric patients and 24.8 years for adults. The mean anesthetic time was 144.1 minutes, and the mean hospital stay was 3.1 days. Postoperative voiding cystourethrogram confirmed complete radiologic resolution of high-grade VUR in 10 of 11 patients (90.9%) during a mean follow-up of 15.1 months. No Clavien-Dindo grade $\geq$ III complications occurred; minor complications included transient urinary retention (Grade I, n=2) and airway edema (Grade II, n=1). Postoperative febrile urinary tract infection occurred in three patients (27.3%).

Conclusion: R-CURE achieves high radiologic success and low morbidity during the early adoption phase, suggesting its potential as a safe, effective, and minimally invasive treatment option for complex duplex VUR systems.

Initial Experience of Robot-Assisted Laparoscopic Extravesical Ureteral Reimplantation (RALUR-EV) in Korean Pediatric Patients

Jong Hoon Lee

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Introduction: We evaluated the initial clinical efficacy and safety of robot-assisted laparoscopic extravesical ureteral reimplantation (RALUR-EV) in Korean pediatric patients.

Methods and Methods: We retrospectively reviewed pediatric patients who underwent RALUR-EV for high-grade vesicoureteral reflux by a single surgeon using the da Vinci system (Xi or DV5). The primary outcome was radiologic resolution on postoperative 3-month video urodynamics. Secondary outcomes included operative time, hospital stay, transient acute urinary retention (AUR), and febrile urinary tract infection (fUTI).

Results: Seven male patients (13 ureteral units) underwent surgery at a median age of 13.4 months (IQR, 10.0–19.1); 6 (85.7%) underwent bilateral procedures. No intraoperative complications, open conversions, transient AUR, or fUTIs occurred. Postoperative 3-month video urodynamics confirmed radiologic resolution in 12 of 13 ureters, demonstrating a 92.3% success rate.

Conclusion: RALUR-EV demonstrated satisfactory success without complications during the early adoption phase, suggesting its potential as a safe and effective procedure even in infants.



Initial Experience of Penumovesicoscopic Lower Urinary Tract Reconstruction in Duplex System with Ectopic Ureterocele

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Purpose: We report our initial experience of the pneumovesicoscopic approach for lower urinary tract reconstruction in two infants.

Methods: We performed pneumovesicoscopic ureterocelelectomy, bladder neck reconstruction, and bilateral common sheath reimplantation in two female infants (12 and 19 months old) with a bilateral complete duplex system and unilateral ectopic ureterocele. Both patients previously underwent transurethral incision of ureterocele at 4 and 1 months of age at other hospitals. They subsequently developed recurrent urinary tract infections requiring surgical intervention. The procedure was performed using 5 mm telescope and 3 mm laparoscopic instruments.

Results: Operative time was 245 and 265 minutes, respectively. There were no perioperative complications. At the 6-month follow-up, the first patient showed complete resolution of hydronephrosis with normal post-void residual (12 ml/60 ml estimated bladder capacity). The second patient maintained stable upper tract dilation with acceptable post-void residual (34 ml/90 ml). No postoperative complications including febrile urinary tract infection were observed during follow-up periods.

Conclusion: Our initial experience indicates that pneumovesicoscopic lower urinary tract reconstruction is technically feasible and safe in infants with duplex system ectopic ureterocele. Despite extensive bladder manipulation, early post-operative bladder function appears well preserved. Longer follow-up and larger series are needed to validate long-term outcomes.

Stones

Displacement of Concrement from Inaccessible Calyx During Nephroscopy Without Creating an Additional Percutaneous Access in Children.

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Introduction: Residual stone fragments during PCNL may migrate into inaccessible anterior calyces, requiring additional tracts. This study optimizes stone repositioning without new percutaneous access.

Methods: From 2008–2025, 492 pediatric PCNLs were performed (86.6% stone-free rate). The displacement maneuver was used in 78 children: 59 (75.6%) with staghorn calculi, 19 (24.4%) with multiple stones. Access was via lower (52.5%), mid (28.2%), or upper (19.3%) pole posterior calyx. Under combined ultrasound/fluoroscopy, the target calyx was punctured and opacified. A guidewire maneuvered the stone into the lithotripsy zone. If unsuccessful, fluid or air was injected via puncture needle to push the stone to renal pelvis. Failure led to a new tract.

Results: The concretum displacement maneuver using only a guidewire was successful in 21 children (26.9%). Combination of techniques was applied – guidewire, fluid injection, air injection was effective in 38 children (48.7%). That avoided the need for a second access in 27 children (71.1%) and third - in 11 children (28.9%).

Conclusions: The use of stone displacement maneuver reduced operative time by 11.5%, decreased the risk of bleeding by 9.3%, and increased the stone-free rate by 12.4%.

Comparative Study of Two Different Extracorporeal Shock Wave Lithotriptors in Children

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Purpose: To evaluate the safety, efficiency, and outcome of Extracorporeal Shock Wave lithotripsy (ESWL) by using In-line versus Outline-Ultrasound -Localisation system for the management of renal stones in children, treated with two-different lithotriptors.

Material And Methods: Records of 106 renal-units from 98 pediatric-patients were treated with ESWL using two-different ultrasound-localisation machines: an in-line ultrasound system (Group A,n=57)and an outline/isocentric ultrasound-system(GroupB,n=49).

Statistics: Descriptive analysis, ANOVA,independent-t-test and Chi-square-test were used for statistical-analysis.

Result: The mean age was 5.4 ± 3 years. Mean-stone size was similar between the groups(1.078 ± 0.32 cm vs. 1.077 ± 0.26 cm, $p=0.82$),and all patients received a single-ESWL-session(3000 ± 208)shock waves.For renal-pelvic-stones, clearance was achieved in 75% in GroupA and 68% in GroupB($p=0.40$), with similar stone sizes(1.10 ± 0.19 cm vs. 1.05 ± 0.21 cm, $p=0.418$). Among lower-calyceal stones, clearance were 81% and 57%,respectively($p=0.11$), while stone sizes remained comparable(0.95 ± 0.20 cm vs. 0.97 ± 0.29 cm, $p=0.795$).Mid-calyceal stones demonstrated clearance rates of 80%in GroupA and 100%in GroupB($p=0.55$),with identical mean stone sizes of 0.87cm.For stones involving multiple-sites, clearance was observed in 66%of GroupA and 77%of GroupB patients($p=0.53$).Overall stone-free rates were 77%for the in-line system and 69.3%for the outline-system($p=0.24$), Mean follow-up period 61.48 ± 64.18 days. Complication rates were comparable between the two-groups,

Conclusion: These findings suggest that both in-line and outline ultrasound-localisation ESWL-machines provide similar stone-clearance, safety, and efficacy for the management of pediatric-renal stones.

Impact of an Indwelling JJ Stent on Quality of Life in Children with Urolithiasis

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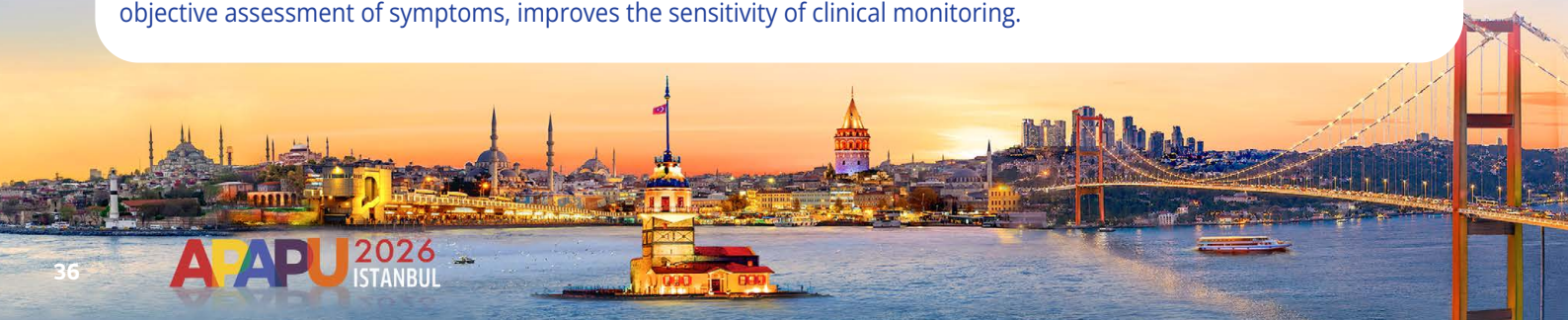
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Aim: To evaluate the quality of life of children with urolithiasis during the period of JJ stenting.

Methods: The study included 29 children with urolithiasis aged 2.8 to 17.9 years who underwent indwelling JJ stent placement as the first stage of surgical treatment. Quality of life was assessed in the first days after stent removal using a structured questionnaire developed by the authors.

Results: More than half of the patients (55.2%) reported moderate or severe pain during the stenting period. Pain during urination was observed in 37.9% of children. A moderate positive correlation was found between flank/abdominal pain and pain during urination ($p=0.475$; $p=0.009$). No association was identified between age, sex, and pain severity. Leukocyturia ranged from 18.8 to 1303.8 cells/ μ L; a positive urine culture was detected in 7 of 21 examined patients (33.3%). No significant association was found between leukocyte count and bacteriuria. Stent duration was not significantly associated with pain severity, leukocyturia, or bacteriuria. Limitations in daily activity were reported in 69% of patients.

Conclusion: An indwelling JJ stent exerts a multifaceted impact on children. The use of structured questionnaires allows objective assessment of symptoms, improves the sensitivity of clinical monitoring.



Genitalia

Treatment of Severe Congenital Dorsal Penile Curvature Using Preputial Flap: A Case Video Presentation

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Aim/Purpose: Congenital dorsal penile curvature (CDPC) is a rare condition usually not associated with urethral anomalies. Standard correction techniques include ventral plication and dorsal grafting. We present a video demonstrating correction of severe CDPC using a preputial flap technique.

Patients and Methods: A 10-year-old boy presented with severe dorsal penile curvature. Physical examination showed an uncircumcised penis with a normally located meatus and bilaterally normal testes. Surgical correction involved mobilization of the neurovascular bundle, followed by deep dorsal corporotomy to release the curvature. A preputial flap was harvested and inserted into the corporotomy defect to restore penile straightness.

Results: At 2 months postoperatively, complete correction was achieved. At 1- and 2-year follow-ups, the patient maintained a straight erection with minimal recurrence. No perioperative or long-term complications were observed. Both cosmetic and functional outcomes were satisfactory.

Conclusion: The preputial flap technique is a safe and effective option for managing severe CDPC, offering durable correction with favorable functional and cosmetic outcomes.

A Novel Technique for Concealed Penis Repair: Simplifying the Surgical Approach

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Objectives: To present a novel, simple, and reproducible technique for concealed penis repair designed for ease of learning and application.

Patients and Methods: Between 2017 and 2024, 449 patients underwent this procedure. Repair begins with frenulum division, preserving an 8–10 mm mucous collar, followed by a distal sub-coronal circumferential incision. Fixation points are marked at the penile base (3 and 9 o'clock). After measuring the required shaft skin coverage, a proximal circumferential incision is made to excise the excess skin sleeve. Starting from the proximal mucous collar, the desired shaft length is marked on shaft (3 and 9 o'clock). Non-absorbable 4/0 sutures are passed internally through the skin fixation points and corresponding shaft marks, then tied bilaterally. Closure starts at 12 o'clock; excess ventral skin is excised to form a new median raphe before final circumferential closure. Follow-ups occurred at 1 week, 1 month, and 1 year.

Results: High parental satisfaction was achieved regarding the final aesthetic outcome. Only one patient (0.2%) required a redo repair due to untied anchoring sutures at the penile base.

Conclusion: This technique is simple, reproducible, and highly adaptable to diverse presentations of concealed penis, offering a reliable surgical solution.

46 XY Denys-Drash Syndrome with Ambiguous Genitalia: Laparoscopic Hysterectomy, Unilateral Orchiectomy and Staged Fowler-Stephens Orchidopexy with Indocyanine Green Fluorescence

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Aim: 46 XY individuals with Denys-Drash syndrome have atypical genitalia, gonadal dysgenesis and undescended testes. This video study investigates the role of Indocyanine green fluorescence (ICG-F) in the preservation of the remaining gonadal blood supply after unilateral gonadectomy and hysterectomy. **Method:** Denys-Drash syndrome was diagnosed in a baby with ambiguous genitalia (two urogenital openings and bilateral impalpable gonads). Ultrasound revealed a tubular-shaped Müllerian structure. Cystoscopy and laparoscopic gonadal biopsies were done. A 4cm vagina with cervix, a small uterus and left fallopian tube were identified. The left gonad was atretic with a very short left gonadal vessel. The right gonad was small with vas and testicular vessel in close proximity to the uterus. Pathology of gonadal biopsies showed male gonadal tissue. Laparoscopic hysterectomy, unilateral orchiectomy and staged Fowler-Stephens orchidopexy was performed. ICG-F was injected intravenously to ensure adequate blood supply to the remaining right intraabdominal testis and vas during stage one Fowler-Stephens orchidopexy.

Results: With the use of ICG-F, the blood supply to the remaining right intraabdominal testis and vas was clearly delineated.

Conclusion: ICG-F ensures adequate blood supply to the remaining gonad in patients with disorder of sexual differentiation requiring unilateral gonadectomy and hysterectomy.

Postoperative Urinary Incontinence and Management Strategies in Patients Undergoing Feminizing Genitoplasty

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Introduction: Feminizing genitoplasty corrects virilized external genitalia in disorders of sex development caused by prenatal androgen exposure. The procedure involves perineal dissection to the vaginal confluence, followed by separate urethral and vaginal positioning via pull-through technique. Postoperative urinary incontinence is a recognized complication. This study evaluated its frequency and management.

Methods: Fifty-one patients undergoing feminizing genitoplasty between 2018 and 2024 were retrospectively reviewed. Patients with at least 6 months follow-up who had completed toilet training were included. Demographic data, urogenital sinus length, urethral length, vaginal depth, incontinence occurrence, and response to anticholinergic therapy were recorded.

Results: Of 51 patients, 28 met inclusion criteria. Postoperative urinary incontinence occurred in 9 patients. Urogenital sinus lengths ranged 8–50 mm and urethral lengths 5–35 mm. Overactive bladder was identified in 5 patients; oxybutynin was initiated with response in 4. Four patients experienced transient incontinence resolving spontaneously within 1–2 months without pharmacological intervention. No significant correlation was found between incontinence and urogenital sinus or urethral length ($p>0.05$).

Conclusion: Post-genitoplasty urinary incontinence may be transient or reflect underlying overactive bladder. A reasonable approach includes urotherapy for the first two postoperative months with concurrent overactive bladder evaluation, initiating anticholinergics if symptoms persist. Larger multicenter studies are warranted.



Congenital or Post-Operative Vesico-Vaginal Fistula?

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Objective Of The Study: Discussion of the causes of vesico-vaginal fistulas and the therapeutic approach.

Methods: We report a case of a vesico-vaginal fistula in a 10-and-a-half-year-old girl revealed by the appearance of urine leakage through the vagina. These urine leakages are constant, both nocturnal and diurnal. They are accompanied by burning during urination, leucorrhea, and vulvo-vaginal irritation. In her medical history, this girl had surgery at the age of 2 (before toilet training age) for a non-functioning kidney due to reflux Left vesicoureteral or ureteronephrectomy was performed. The uroscan revealed the VVF with a calcification at the vaginal end. Cystoscopy allowed assessment of the exact position of the fistula and its relations with the bladder neck, the trigone, and the ureters. Surgical treatment via a high transvesical approach consisted of repair of the fistula by endovesical route after separating the vaginal and bladder walls and suturing them separately without traction.

Results: Postoperative course marked by disappearance of urinary leakage through the vagina. .

Conclusion: Rare pathology, most often postoperative, exceptionally congenital. The fistula is not always easy to see by cystoscopy. The treatment is surgical. Recurrences can compromise the prognosis.

Embryology, Genetics & AI

Development of the Human Glanular Urethra, Fossa Navicularis and Prepuce; A Histological & Immuno-Histochemical Study to understand the pathogenesis of hypospadias & megameatus.

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Aim: To examine human embryos between 14-24 gestational weeks and document the development of the glanular urethra, fossa navicularis and prepuce.

Method: Twenty-three human male fetuses (14-24 gestational weeks) were examined after obtaining ethics approval. Serial histological sections were stained using haematoxylin and eosin as well as immuno-histochemical stains (CK 7 and MIB Ki67).

Results: Seven specimens were excluded due to autolysis and sixteen fetuses constitute this cohort: At 14-16 weeks: The penile urethra was developed. The glanular urethral plate was solid filled with squamous epithelial cells. The prepuce started to develop dorsally. At 17-20 weeks: The vacuolation resulted in the formation of glanular canal and glanular groove. The prepuce starts to develop ventrally and the glanular groove fuses with the prepuce ventrally to form glanular canal. At 20 weeks, the horizontal penile urethra meets the vertical glanular urethra resulting in the formation of the star-shaped fossa navicularis. At 21-24 weeks: Development of the glanular urethra and prepuce was comple..

Conclusions: The glanular urethra/ prepuce continue development till 24-week gestation probably explaining why distal hypospadias is more common. Lack of fusion of the glanular groove with the prepuce may explain pathogenesis of MIP.

Whole-Exome Sequencing Reveals Novel Genetic Determinants in Children with CAKUT Syndrome: From Known Panel Genes to New Candidates

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Aim: To identify novel genetic determinants.

Method: whole-exome sequencing was performed in 150 children with clinically confirmed CAKUT-syndrome (presenting with bilateral megaureter, vesicoureteral reflux, hydronephrosis complicated by chronic kidney disease). Following filtering of detected variants by population frequency, direct screening for pathogenic variants was performed using multiple classifiers, along with a search for variants in CAKUT-associated genes based on 100000 Genomes Project.

Results: Mutations were found in 89 out of 101 genes from the known CAKUT-panel. The most frequent significant variants occurred in KMT2D (17 patients), NOTCH2 (8), SLIT2 (7), GLI3 (6), ROBO2 (6), RET (6), CHD (5), TBC1D1 (4), GREB1L (4), HNF1B (3), WBP11 (3), and BNC2 (3). Among candidate genes expressed in the kidney but not included in the CAKUT-panel, significant variants were most commonly detected in SLC39A5 (4 patients), DHDH (4), DNASE1 (3), TMEM252 (3), SLC25A48 (3), PRODH2 (2), SLC6A19 (2), PKHD1 (2), CYP24A1 (2), ATP12A (2), and CYP4A11 (1). PKHD1 (encoding fibrocystin) is the most important gene in this list from a developmental perspective; its mutations cause autosomal recessive polycystic kidney disease. SLC39A5, SLC6A19, SLC25A48, and ATP12A are involved in transport and reabsorption; CYP24A1, CYP4A11, DHDH, and PRODH2 in metabolism and detoxification; while DNASE1 and TMEM252 are associated with DNA degradation in serum and urine and with glomerular filtration rate.

Molecular Analysis of DNAH Gene Expression in Inguinal Hernia and Undescended Testis

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Aim: This study investigated the expression patterns of DNAH genes in residual processus vaginalis tissue collected during surgery for inguinal hernia and undescended testis.

Patient: The study analyzed DNAH5, DNAH8, DNAH9, DNAH11, and DNAH17 gene expression in prepubertal boys with undescended testis and inguinal hernia. The study included 24 patients with undescended testis, 23 patients with inguinal hernia, and 23 age-matched healthy circumcised controls.

Results: DNAH5 expression increased significantly in the inguinal hernia group. DNAH9 expression increased significantly in the undescended testis group. In contrast, DNAH17 expression decreased significantly in the inguinal hernia group. DNAH8 and DNAH11 expression showed no significant differences among the groups. **Statistics:** For the comparison of age across the three groups, the Kruskal-Wallis H test was employed, which was followed by Dunn's multiple comparisons test. The gene expression analysis was conducted on the ΔC_t values using either the Ordinary One-way ANOVA or the Welch ANOVA, depending on the homogeneity of the variances as determined by the Brown-Forsythe test. Post-hoc comparisons were executed using either the Tukey or the Dunnett's T3 tests.

Conclusion: The study showed distinct expression patterns of DNAH5, DNAH9, and DNAH17 in inguinal hernia and undescended testis.



Combination of Congenital Anomalies of Male Reproductive System with CAKUT- Syndrome: Unity of Embryogenesis

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Introduction: The close anatomical and functional relationship between the urinary and reproductive systems in males arises from their shared embryonic origin. However, the prevalence of specific reproductive system anomalies in boys with congenital bilateral megaureter (BMU) has not been well studied.

Materials: 200 boys with BMU for concomitant congenital anomalies of the reproductive system. Diagnosis was based on clinical examination, ultrasound of the urinary and reproductive systems in all patients, and, in selected cases, MRI of the pelvic organs, diagnostic laparoscopy, and radiographic studies (urethrography, urethroscopy). Whole-exome sequencing was done in all.

Results: Combined anomalies affecting both systems were identified in 20% of patients. Cryptorchidism was the most common reproductive anomaly (24). Other inguinal canal anomalies included hydrocele and congenital inguinal-scrotal hernia (7), hypospadias (3), urethral duplication (1). Significant genetic alterations were identified in 51 genes in the overall BMU cohort, and in 33 genes in patients with combined anomalies. No single gene did the mutation frequency differ significantly between patients with reproductive system anomalies and the overall BMU.

Conclusion: Surgical planning for patients with BMU should include correction of associated reproductive system defects. Patients with combined anomalies may have distinct disease mechanisms, warranting personalized treatment approaches.

Syndromic Cryptorchidism in the Context of CAKUT: Genetic Determinants and Mechanisms Independent of Classical Endocrine Pathways

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Aim: To investigate the association of cryptorchidism with various forms of CAKUT - syndrome and, based on whole-exome sequencing data, to identify genetic factors affecting its development.

Methods: 133 boys with CAKUT-syndrome (bilateral obstructive uropathy) was conducted. Whole-exome sequencing and bioinformatic analysis of the obtained data were performed.

Results: Among different urological malformations (megaureter, VUR, hydronephrosis), the combination with cryptorchidism was most frequently observed in patients with bilateral megaureter (19 out of 23). Mutations were identified in 33 genes, 15 of which (KMT2D, FRAS1, NOTCH2, FREM2, SALL1, GRIP1, NPHP3, ACE, ROBO2, DHCR7, GREB1, HOXA13, BMP4, KDM6A, WNT5A) have been described in syndromes and mechanisms of testicular and urethral anomalies. No gene mutation frequency significantly differed between patients with cryptorchidism and isolated CAKUT-syndrome. No mutations were found in genes considered principal for intrauterine gonadal migration (TREM2, INSL3, RXFP2, androgen receptor gene-AR) in patients with combined cryptorchidism.

Conclusion: Isolated and syndromic cryptorchidism differ in developmental mechanisms. Patients with bilateral megaureter and cryptorchidism represent a promising cohort for investigating shared epigenetic and molecular-genetic mechanisms, likely involving alternative pathways universal to gonad and ureter, distinct from classical endocrine mechanisms, necessitating personalized treatment.

Early Diagnostic Strategies in Klinefelter Syndrome: A Retrospective Analysis of Pediatric Cases Presenting with Undescended Testis

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Objective: Klinefelter syndrome (KS), the commonest sex chromosome aneuploidy in males, is usually diagnosed after puberty because of infertility or hypogonadism. We aimed to determine the prevalence of KS among pediatric patients undergoing surgery for cryptorchidism and to assess whether preoperative clinical and laboratory findings could support earlier diagnosis.

Materials and Methods: We retrospectively reviewed 420 boys evaluated for undescended testis and scheduled for surgery between February 2018 and February 2026. Patients with testicular volume below age-adjusted norms, bilateral involvement, or associated dysmorphic features underwent pediatric endocrinology consultation, hormonal evaluation including follicle-stimulating hormone, luteinizing hormone, total testosterone, and inhibin B, and karyotype analysis.

Results: Nine patients (2.1%) had a 47,XXY karyotype. Mean age at diagnosis was 7.2 years (range, 3–11). Six patients (66.7%) had bilateral undescended testes, while three (33.3%) had unilateral undescended testis with marked contralateral hypoplasia. Preoperative scrotal ultrasonography demonstrated significantly reduced mean testicular volume compared with age-matched norms ($p < 0.05$). Despite prepubertal status, two patients showed mildly elevated FSH levels and low inhibin B. Orchiopexy was performed in seven patients, whereas orchiectomy was required in two because of severe atrophy.

Conclusion: Systematic examination and preoperative testicular volume assessment may facilitate earlier recognition of KS in boys with cryptorchidism.

Automated Interpretation of Pediatric Urodynamics Using Multimodal Artificial Intelligence

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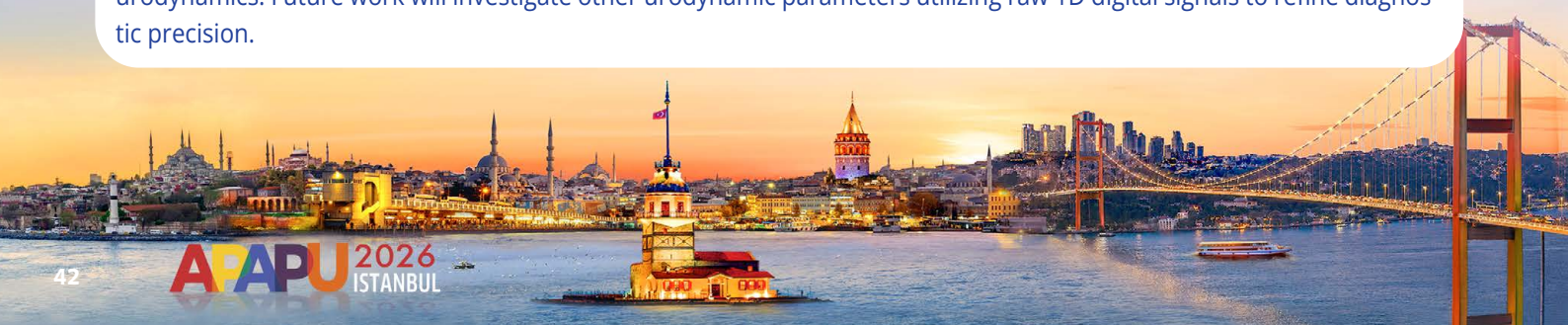
3-Gebze Technical University, Department of Computer Engineering, Turkey

Aim/Purpose: To support clinical decision-making and prevent upper urinary tract damage in children, we propose a multimodal fusion framework integrating Convolutional Neural Networks (CNN) and Vision-Language Models (VLM) (Fig. 1).

Materials and Methods: Urodynamic traces from 553 pediatric patients with neurogenic bladder dysfunction were analyzed. A strict subject-stratified, class-balanced split (443 training, 106 validation) was implemented. Feature scalars were fitted solely on the training set. A 6144-dimensional representation fused ResNet50 visual (2048-D) and clinical-rule-guided Llama 3.2 Vision (4096-D) semantic features. Utilizing this representation, two parallel, empirically selected RBF-SVM classification heads predicted detrusor status (three classes: normal, overactive, underactive) and detrusor sphincter dyssynergia (DSD) status (binary). 95% confidence intervals (CI) were calculated via 1000-iteration bootstrapping.

Results: Proposed framework achieved 84.91% accuracy [95% CI: 78.3–91.5%] and 0.920 ROC-AUC [95% CI: 0.863–0.962] for DSD diagnosis, yielding 90.00% recall for DSD, outperforming standalone CNN (82.08%) and VLM (71.70%) baselines. For detrusor diagnosis, it achieved 74.53% accuracy [95% CI: 65.1–83.0%] and 0.873 ROC-AUC [95% CI: 0.812–0.926], outperforming CNN (73.58%) and VLM (69.81%) baselines.

Conclusion: This preliminary framework promise a clinically valuable, generalizable decision support tool for pediatric urodynamics. Future work will investigate other urodynamic parameters utilizing raw 1D digital signals to refine diagnostic precision.



AI-Assisted Two-Plane Renal Ultrasound Assessment of Hydronephrosis in Infants

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Objective: This study evaluated the performance of an artificial intelligence model using transverse and longitudinal renal ultrasound images to classify hydronephrosis severity in infants.

Methods: Renal ultrasound images of infants aged 0–24 months who were followed for antenatal or postnatal hydronephrosis between January 2021 and December 2025 were reviewed retrospectively. For each renal unit, one transverse renal pelvic image and one longitudinal renal image were selected. All images were anonymized and assessed by two pediatric radiologists and one pediatric urologist according to SFU and UTD classifications. Expert consensus was accepted as the reference standard. A two-view EfficientNet-B0-based deep learning model was trained to classify low- versus high-grade hydronephrosis and predict UTD risk category.

Results: The study included 286 infants and 412 renal units. The model classified low- versus high-grade hydronephrosis with 91.2% accuracy, 90.1% sensitivity, 92.0% specificity, and an AUC of 0.94. Agreement between the AI model and expert consensus for UTD category was substantial.

Conclusion: AI-assisted two-plane renal ultrasound analysis may provide an objective and reproducible tool for assessing hydronephrosis severity in infants.

Application of Transperineal Ultrasonography with Measurement of the Anterior Urethral Angle in the Diagnosis of Dysfunctional Voiding in Children

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Objective: To improve diagnostic and treatment outcomes in children with dysfunctional voiding using transperineal ultrasonography with measurement of the anterior urethral angle.

Materials And Methods: The study included children with pelvic floor evacuation disorders observed between 2024 and 2026. Inclusion criteria were patients aged 5–18 years with dysfunctional voiding (n=27), diagnosed by comprehensive urodynamic evaluation, including triple uroflowmetry with post-void residual urine assessment and pelvic floor electromyography. All patients underwent transperineal ultrasonography with measurement of the anterior urethral angle according to the institutional protocol. Measurements were performed at rest and during straining.

Results: All patients demonstrated insufficient relaxation of the pelvic floor muscles during straining. During the straining maneuver, the anterior urethral angle decreased by an average of 2°, whereas under normal conditions it is expected to increase by approximately 10°. Ultrasound findings correlated with the results of comprehensive urodynamic evaluation.

Conclusions: Transperineal ultrasonography demonstrated high diagnostic value and may be used as a first-line diagnostic method for dysfunctional voiding in children, reducing the need for invasive and expensive urodynamic investigations.

Sleep Quality Assessment with a Smart Wristband in Children with Treatment-Resistant Monosymptomatic Nocturnal Enuresis.

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Objective: This study aimed to assess objective sleep quality using smart wristband recordings in children with treatment-resistant monosymptomatic nocturnal enuresis.

Methods: Medical records of children aged 6–12 years who were evaluated between January 2024 and December 2025 were reviewed retrospectively. Treatment resistance was defined as less than a 50% reduction in wet nights despite standard urotherapy combined with alarm therapy and/or desmopressin. Children with daytime lower urinary tract symptoms, constipation, neurologic disease, suspected obstructive sleep apnea, or inadequate wristband recordings were excluded. Patients with at least seven valid nights of smart wristband data were included in the analysis.

Results: Sixty-four children with resistant monosymptomatic nocturnal enuresis and 42 healthy controls were included. The groups were similar in age and sex. Sleep efficiency was significantly lower in the enuresis group than in controls ($80.9 \pm 7.4\%$ vs $88.2 \pm 5.6\%$; $p < 0.001$). Total sleep duration was shorter, while sleep latency, number of nighttime awakenings, and fragmentation index were higher. Weekly wet-night frequency correlated positively with fragmentation index and negatively with sleep efficiency.

Conclusion: Children with treatment-resistant monosymptomatic nocturnal enuresis show impaired objective sleep quality. Smart wristband recordings may provide a practical, non-invasive tool for evaluating this clinical phenotype.

Can Urodynamic Studies Improve Diagnostic Accuracy in Children with Radiologically Equivocal Tethered Cord Syndrome?

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Objective: To evaluate the diagnostic contribution of urodynamic studies in children with suspected Tethered Cord Syndrome and equivocal spinal MRI findings.

Methods: This prospective observational study included 42 children aged 3–18 years with borderline or equivocal MRI findings suggestive of TCS. Clinical symptoms, MRI findings, and urodynamic parameters were analyzed. Evaluated urodynamic findings included bladder compliance, Detrusor Overactivity, Detrusor-Sphincter Dyssynergia, voiding pressures, and post-void residual urine.

Results: Median age was 8.6 years and 61.9% were female. The most common symptoms were daytime incontinence (71.4%), recurrent urinary tract infections (47.6%), urgency (45.2%), and constipation (40.4%). At least one abnormal urodynamic finding was identified in 73.8% of patients. Low bladder compliance was present in 42.8%, detrusor overactivity in 38.1%, increased post-void residual urine in 35.7%, and DSD in 28.5%. Nineteen patients underwent surgical detethering; 84.2% had abnormal preoperative urodynamic findings. Symptomatic improvement was observed in 68.4% after surgery. Abnormal urodynamic findings were significantly associated with surgical intervention ($p = 0.01$).

Conclusions: Urodynamic studies may reveal early neurogenic bladder dysfunction and provide valuable functional diagnostic support in children with radiologically equivocal TCS.

The Effect and Comparison of Different Physiotherapeutic Techniques in Children with Neurogenic Bladder Dysfunction

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Aim/Purpose: To delineate the clinical effects of different physiotherapeutic techniques during pelvic floor rehabilitation (PFR) in children with neurogenic bladder dysfunction (NBD).

Patients and Methods: Children with NBD were evaluated retrospectively. All patients received behavioral therapy, diaphragmatic breathing, core stabilization exercises, and perineal sensory training as standart PFR. Group 1 received only standart PFR, Group 2, incentive spirometry and Group 3, incentive spirometry, kinesiotape applications. Age, gender, patient satisfaction scores, no of diaper change, maximum voluntary voided volume, voluntary defecation, urinary tract infection, constipation status, dry periods after catheterization and pelvic floor EMG activities were analyzed.

Results: There were 14 patients in Group 1, 11 patients in Group 2 and 11 patients in Group 3. There was no difference in clinical parameters between groups. EMG activity was increased in Group 2 and Group 3 when compared to Group 1 ($3,93 \pm 1,24$ mV vs $6,10 \pm 3,6$ mV, $p=0,018$, Group 3, $5,47 \pm 1,05$ mV, $p=0,001$) after treatment. Comparison of Group 2 and Group 3 was not significant.

Conclusions: Standard PFR may increase pelvic floor EMG activity in children with NBD. This may be improved with the addition of incentive spirometry. Kinesiotape application seems to have no contribution when added to standart PFR and incentive spirometry.

Efficacy and Safety of Intravesical Botulinum Toxin Type-A for Children with Refractory Idiopathic Overactive Bladder

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Objective: For children with small bladder capacity and unstable detrusor, intravesical botulinum toxin type A (BTX-A) injection has become an important minimally invasive alternative therapy. However, the safety and effectiveness affecting the therapeutic outcome of BTX-A in this pediatric population still need further research.

Materials and methods: This study included children with refractory idiopathic overactive bladder (RIOAB) who were treated at the First Affiliated Hospital of Zhengzhou University from October 2023 to August 2025 as the research subjects. UDS examination was conducted 1 week before treatment and 3 months after the treatment, and the Overactive bladder symptom score (OABSS) and Incontinence quality of life questionnaire (I-QOL) scales were collected.

Results: A total of 54 children with RIOAB met the inclusion criteria, including 24 males (44.4%) and 30 females (55.6%). The age range at the time of surgery was 5 to 17 years, with an average age of 11.5 ± 4.1 years. There were significant differences in bladder compliance, bladder volume ratio (measured/expected bladder volume), OABSS score, and I-QOL score before and after BTX-A injection ($P < 0.05$).

Conclusions: Intravesical BTX-A injection is a safe and effective treatment for most children with RIOAB.

Ureter

Comparative Outcomes of High-Pressure Balloon Dilation and Ureteral Reimplantation in Primary Obstructive Megaureter: Predictive Role of the Ureter Tortuosity Index

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Purpose: To compare the clinical outcomes of high-pressure balloon dilatation (HPBD) and ureteral reimplantation in pediatric patients with primary obstructive megaureter (POM), and to evaluate the predictive value of the ureteral tortuosity index (TI) for HPBD failure.

Methods: We retrospectively reviewed pediatric patients with POM who underwent HPBD (n=47) or ureteral reimplantation (n=37) between 2005 and 2025. Outcomes included changes in hydronephrosis grade, retrovesical ureter diameter, split renal function (SRF), and secondary intervention rates. Logistic regression, receiver operating characteristic, and Kaplan–Meier analyses were performed to identify predictors of HPBD failure.

Results: The median post-operative follow-up was 32.0 months (IQR: 16.0-44.0) in the HPBD group and 57.0 months (IQR: 29.0-81.3) in the ureteral reimplantation group. Ureteral reimplantation resulted in greater improvement in hydronephrosis and ureteral diameter (both $p<0.001$). However, post-operative SRF was comparable between the two groups ($p=0.314$). Secondary surgical intervention following HPBD was required in 14.9% of patients after the median follow-up of 7.0 months (IQR: 5.0-13.0). Larger ureteral diameter and higher TI were independently associated with higher HPBD failure.

Conclusions: HPBD represents an effective minimally invasive treatment option for selected patients with POM. TI may serve as a useful predictor of treatment failure and assist in individualized treatment selection.

Primary Ureterovesical Reconstruction Techniques for Congenital Megaureter in Children: A Systematic Review of Outcomes and Safety

Zukhra Sabirzyanova, Andrew Pavlov, Ilia Galochkin

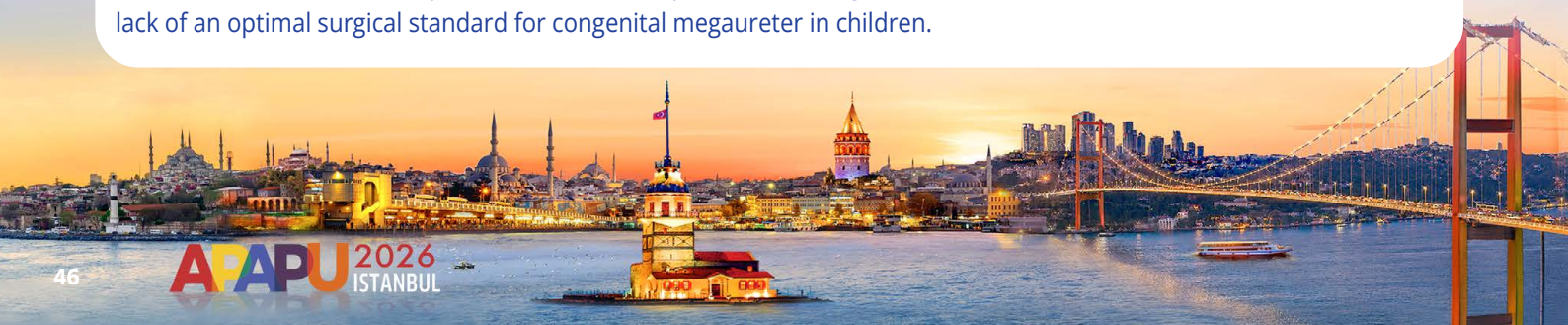
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Current guidelines recommend conservative management for most children with congenital megaureter (MU). When surgery is indicated, ureterocystoanastomosis (UCA) remains the gold standard. This systematic review analyzes the efficacy and safety of different primary ureterovesical reconstruction techniques in children with congenital MU.

Methods: A systematic review of PubMed, Web of Science, and Google Scholar (2000-2025) was performed following PRISMA methodology. Of 436 screened articles, 29 original studies were selected.

Results: A total of 2,461 children (2,855 ureters) were analyzed. Mean baseline ureteral diameter was 16.4±12 mm (8.2-30 mm). Three surgical principles were identified: intravesical approaches, Politano-Leadbetter technique, and extravesical UCA without opening the bladder. Approaches included open, laparoscopic, transvesical, and robot-assisted. Due to high heterogeneity (12>50%), no technique demonstrated significant superiority in operative time, hospital stay, or drainage duration. Complications (Clavien-Dindo grade 1-2: hematuria, ileus, urinary tract infection) occurred in 40% regardless of intervention type. Postoperative vesicoureteral reflux developed in 9-15% of cases, often resolving spontaneously or endoscopically. Obstructive complications occurred in 3- 6%, with a reoperation rate of 8%.

Conclusion: The wide variety of described techniques reflects surgeons' dissatisfaction with current outcomes and the lack of an optimal surgical standard for congenital megaureter in children.



Ureterocutaneostomy in Children with Megaureter: Urinary Diversion Does Not Guarantee Renal Functional Recovery

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Aim: Congenital megaureter (MU) may cause severe upper urinary tract (UUT) deterioration, especially in infants. Temporary ureterocutaneostomy (UC) serves as a palliative supravescical diversion to stabilise critically ill patients before reconstructive surgery.

Purpose: To evaluate the efficacy of ureterocutaneostomy in children with megaureter (MU).

Methods: A multicenter study including 150 children with unilateral or bilateral MU, 115 of whom were operated before 6 months of age.

Results: Early postoperative (7-14 days) improvement in 92%: resolution of intoxication, reduced systemic inflammation, normalized biochemical and metabolic parameters, and decreased pelvicalyceal and ureteral dilation. At 6 months, renal pelvis reduction of 18-46% ($p = 0.0016-0.0437$) and calyceal reduction of 15-31% ($p > 0.05$, trend only). Ureteral length and width decreased by 45-57% ($p \leq 0.0001$), with resolution of fixed tortuosity. Parenchymal thickness increased by 54-77% and the integral uptake index (IUI) by 50-91%, but neither change was statistically significant ($p > 0.05$).

Conclusion: Urinary diversion alone is not the key factor for renal function recovery in MU. More critical determinants include the volume and severity of dysplasia, activity of fibrotic changes, patient age at diversion, and other factors influencing the kidney's regenerative reserve.

Reconstruction of the Urinary Tract Following Ureterocutaneostomy in Children with Megaureter: A Multicenter Experience

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Aim: This multicenter study evaluates reconstructive surgeries for urinary tract restoration following ureterocutaneostomy (UCS) in children with megaureter, focusing on organ-preserving strategies.

Methods: A total of 204 ureters with various UCS types (loop, Y-shaped, terminal) were analyzed in 150 children. Long-term outcomes were assessed across three patient groups based on UCS configuration. Key surgical principles: In 181 ureters (with preserved kidney function), corrective interventions targeted the UVJ to restore its anatomofunctional status, followed by UCS closure. Eight patients required no UVJ correction, confirmed by antegrade contrast. Spontaneous closure: Y-shaped UCS exhibited spontaneous closure in 9 cases after relief of UVJ obstruction. Other cases required complete excision of the externalized ureteral segment and ureteroureterostomy, pyeloureterostomy, or ureterocystoanastomosis with internal stent replacement. One-stage vs. two-stage reconstruction: Terminal (19) and loop (12) UCS permitted one-stage ureter reimplantation with UCS excision. 18 Y-shaped UCS cases underwent one-stage ureteroureterostomy with simultaneous endoscopic correction. Two-stage reconstruction involved preliminary pyeloplasty ($n=3$) or UVJ correction in 98 ureters.

Conclusions: UCS modification should align with future reconstructive strategies. An organ-preserving approach (89% of patients) prioritizes minimally traumatic techniques enabling subsequent urinary tract restoration. UCS closure is justified after successful UVJ reconstruction (endoscopic correction, or reimplantation).

Stepwise Endosurgical Strategy for Ureterovesical Junction Anomalies in Complete Duplex Systems

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Aim/Purpose: To evaluate a stepwise endosurgical strategy for ureterovesical junction anomalies in complete upper urinary tract duplication.

Patients/Material and Method: A retrospective analysis included 410 consecutive children treated from 2015 to 2026. Age ranged from 1 to 192 months (mean: 27.5; median: 17). All patients initially underwent transurethral endoscopic correction. If bulking agent injection or ureterocele incision failed, laparoscopic reconstruction or heminephrectomy for non-functioning renal moieties was performed. Comparative analysis included 400 patients: algorithm-based management (n = 310) and non-algorithm-based management (n = 90). Mean follow-up was 36.4 ± 8.2 months (range: 6–48).

Statistics: Continuous variables were presented as mean $\pm$ standard deviation, median, and range. Categorical variables were expressed as frequencies and percentages. Between-group comparisons used chi-square or Fisher's exact test. A p-value <0.05 was considered significant.

Results: Transurethral procedures provided definitive treatment in 132 patients (32.2%). Among the others, 240 underwent laparoscopic reconstruction and 38 required heminephrectomy. Persistent reflux after reimplantation occurred in 15 patients and was successfully managed by ureteroureterostomy; no anastomotic strictures were recorded. Algorithm-based management achieved higher success than non-algorithm-based management (93% vs. 85%) and fewer Clavien–Dindo IIIb complications (4% vs. 8%).

Conclusion: This algorithm effectively manages complex duplex-system UVJ anomalies.

Quantitative Ureterovesical Junction Dysfunction Score for Predicting Failure of Primary Endoscopic Treatment in Pediatric Vesicoureteral Reflux

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Aim: To develop and externally validate a quantitative ureterovesical junction (UVJ) dysfunction score for predicting failure of primary endoscopic treatment in children with vesicoureteral reflux (VUR).

Materials and Methods: A prospective cohort study included 101 children with primary VUR (143 renal units). The UVJ dysfunction score was derived from three functional parameters: bladder volume at reflux onset, ureteral dilatation index, and ureteral jet angle assessed by voiding cystourethrography and Doppler ultrasonography. Predictive performance was evaluated using binary logistic regression and receiver operating characteristic (ROC) analysis. External validation was performed in an independent cohort of 50 patients.

Results: UVJ dysfunction severity varied considerably among renal units with the same VUR grade, indicating that reflux grade alone did not adequately reflect functional impairment. ROC analysis identified an optimal threshold of 8.5 points for predicting failure of primary endoscopic treatment (AUC 0.897; sensitivity 86.3%; specificity 89.5%). Scores above the threshold were associated with a substantially increased risk of treatment failure. External validation confirmed strong predictive performance (AUC 0.910).

Conclusions: The proposed UVJ dysfunction score provides objective risk stratification for failure of primary endoscopic treatment and may support individualized treatment selection in children with VUR.



Imaging in Hydronephrosis

Ultrasonographic and MAG3 renal scintigraphic findings in pediatric severe upper urinary tract dilations

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Aim: The purpose of the study was to compare the findings of ultrasound(US) and MAG3 renal scintigraphy in children with severe upper urinary tract dilation. We also aimed to compare MAG3 functional measures to find a better function for clinical approach.

Patients: 203 children(227kidneys) were reviewed retrospectively. Renal size, parenchymal thickness, Onen hydronephrosis grade, AP-diameter, parenchymal area on US were evaluated. Differential function, the count-based measures, cortical transit time(CTT), T-max, T1/2, diuretic response on MAG3 were investigated.

Results: Onen hydronephrosis grade was the strongest single predictor of obstruction($p<0.001$). Thinning of renal parenchyma likewise emerged as a robust indicator of significant obstruction($p<0.001$). AP diameter offered only partial predictive value($p=0.032$). Diuretic response showed no independent association with obstruction. AVG Count was the most coherent biomarker. CTT didn't suggest obstruction; but it correlated negatively with parenchymal thickness($p<0.001$) and with Max Count($p<0.001$).

Conclusion: Onen hydronephrosis grade was the single most powerful determinant of obstruction; the operative likelihood climbs sharply as the grade rises. Clinical decision reached when the grade is read together with parenchymal thickness, AVG and Max Count, and CTT. A thinned parenchyma was a dependable herald of advanced obstruction. Parenchymal thickness and area on ultrasonography mirror functional reserve demonstrated by MAG3.

Clinical Validation of a Six-Type Drainage Curve Classification System for Diuretic Renal Scans in Children with Ureteropelvic Junction Obstruction

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Aim/Purpose: Interpretation of diuretic renal scans in pediatric ureteropelvic junction obstruction (UPJO) remains subjective. We evaluated the reliability and clinical utility of a six-type drainage curve classification system in children undergoing pyeloplasty.

Patients/Material and Method: We retrospectively reviewed 42 children with unilateral UPJO who underwent primary pyeloplasty and had both preoperative and postoperative renal scans (MAG3 or DTPA). All scans were performed using Foley catheter drainage and F+20 protocol. Drainage curves were independently classified by two reviewers into six types based on time to peak, drainage half-time, and curve morphology. Interobserver agreement was assessed using weighted kappa.

Results: Weighted kappa was 0.443 preoperatively and 0.633 postoperatively in operated kidneys. In all 84 renal units, preoperative agreement was excellent ($\kappa = 0.902$). Operated kidneys showed significantly higher preoperative curve severity than contralateral kidneys ($p < 0.001$). Postoperative curve improvement was observed in 81.0%, while persistent Type 5-6 patterns remained in 16.7%.

Conclusion: The six-type classification showed acceptable reproducibility and strong clinical validity. It provides a useful framework for standardized interpretation of renal scans and postoperative assessment after pyeloplasty.

Functional MR Urography Versus Dynamic Renal Scintigraphy for Evaluation of Pediatric Obstructive Uropathy: A Systematic Review and Meta-Analysis

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Aim / Purpose: To evaluate whether functional MR urography (fMRU) is diagnostically equivalent to dynamic renal scintigraphy (DRS) in pediatric obstructive uropathy. **PATIENTS / MATERIAL AND METHOD**

A systematic review and meta-analysis following PRISMA 2020 (PROSPERO: CRD420261304089) was conducted. PubMed, ScienceDirect, Embase, and Cochrane Library were searched for studies comparing fMRU and DRS in pediatric obstructive uropathy. Outcomes included split renal function (SRF) agreement, diagnostic accuracy for obstruction, and renal transit time (RTT). Risk of bias and evidence certainty were evaluated using QUADAS-2 and GRADE, respectively.

Results: Nine studies (839 patients) were included. fMRU demonstrated excellent SRF concordance with DRS (pooled $r = 0.98$, 95% CI 0.98–0.99; mean difference -1.59 , $p = 0.13$; $I^2 = 0\%$). Pooled sensitivity and specificity for obstruction detection were 0.883 and 0.850, respectively (DOR = 43.05; LR+ = 5.91; LR- = 0.137). RTT analysis yielded sensitivity 0.843 and specificity 0.805 (DOR = 22.89).

Conclusion: Functional MR urography demonstrates diagnostic equivalence to DRS for SRF quantification and obstruction detection in pediatric obstructive uropathy, without ionizing radiation. A negative likelihood ratio of 0.137 supports reliable rule-out utility. Protocol standardization remains essential for broader clinical integration.

Glow and Tell: The Expanding Role of ICG Near-Infrared Fluorescence in Paediatric Urological Surgery — From Ureters to Urethroplasty, Torsion to Tumors

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Background: Intraoperative fluorescence imaging with Indocyanine Green (ICG) is rapidly reshaping paediatric urological surgery. This FDA/EMA-approved near-infrared dye binds with plasma albumin to provide real-time perfusion data with tissue penetration of 5–10 mm, overcoming white-light surgery's inability to reliably delineate ureters, vascular pedicles, lymphatics, and tissue perfusion across open, robotic, and laparoscopic platforms.

Aims: To assess the feasibility and clinical utility of ICG-NIRF imaging across the breadth of paediatric urological surgery, including novel applications in testicular torsion and hypospadias repair.

Methods: Forty paediatric patients underwent ICG-NIRF-guided procedures open, laparoscopic, and robotic using Firefly near-infrared technology or a dedicated NIR camera. ICG was administered intravenously (complying with dosage), instilled into the bladder (in some cases).

Results: Procedures included pyeloplasty (UPJ obstruction), partial nephrectomy, ureteric reimplantation, varicocelectomy, tumour resections, undescended testis, urachal cyst excisions. Novel applications comprised real-time testicular perfusion mapping after detorsion to guide orchiopexy versus orchiectomy, and dartos and skin flap viability assessment before urethroplasty coverage in hypospadias repair. Adequate fluorescence was achieved in all 40 cases; no ICG-related adverse events were recorded.

Conclusions: ICG-NIRF is a safe, versatile, platform-independent intraoperative adjunct in paediatric urology. Prospective multicentre trials with standardised dosing protocols are required to validate its expanding role.



Nightmare Cases

“Salvaging a Kidney May Not Always Be the Best Option”

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Purpose: To present a rare case of isolated renal mucormycosis (IRM) in an immunocompetent child and to emphasize the critical role of early diagnosis, frozen section evaluation, and timely surgical intervention in achieving favourable outcomes.

Material And Method: A six-year-old boy presented with intermittent fever for two months and left flank pain with burning micturition for one month. Previous hospitalisations revealed positive blood cultures for MDR *Salmonella typhi* and *Burkholderia cepacia*. Ultrasound and CT KUB showed organized collections and abscesses in the lower pole of the left-kidney, with preserved upper pole function (27%) on DMSA-scan.

Result: A left heminephrectomy with uretero-calicostomy was performed. Histopathology on day showed mucormycosis which necessitated the complete nephrectomy till the frozen sections negative. The child received 80 doses (1600 mg) of Amphotericin B but developed drug-induced pancreatitis, managed conservatively. Two years later, the patient remains healthy with normal right kidney function and no recurrence.

Conclusion: Isolated renal mucormycosis in immunocompetent children is extremely rare. This case demonstrates that kidney preservation is not always the best option. Prompt surgical debridement combined with systemic antifungal therapy remains the cornerstone of management. Frozen section analysis is vital even in necrotic or purulent lesions to ensure complete disease clearance and prevent recurrence.

Hypospadias

How Hypospadias Surgery evolved over the last 15 years: A Global survey

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Aim/Purpose: In 2011 the first worldwide survey on trends in Hypospadias surgery was published. We aimed to present an update 15 years later.

Material and Method: MCQ survey dealing with the current trends in hypospadias surgery was distributed to several international societies in 2026. The survey identified the continent, years of experience, speciality, number of operations and the surgical approach to correct the different grades of hypospadias. The results were compared to the original survey in 2011.

Results: 425 surgeons from all continents participated in the survey (125 Europe, 103 N. America, 100 Asia). We could detect shifts from the original survey in hypospadias correction: TIP is less performed in glanular hypospadias (21% V 71% in 2011) and rarely in proximal or perineal hypospadias (3% V 16% in 2011). Ventral lengthening has become the popular approach to correct chordee more than 30 degrees (56%). Two stage repair has become the standard technique for penoscrotal and perineal hypospadias (95% V 77% in 2011).

Conclusion: There is a considerable evolution over the last 15 years in hypospadias management with TIP mainly used for distal hypospadias, ventral lengthening to correct severe chordee and two stage repair for penoscrotal and perineal hypospadias.

Lateral Based Onlay for Recurrent hypospadias surgery (LABOR); A Multicentre Study

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Aim: To report long-term outcomes of the Lateral Based Onlay Flap (LABOR) technique for recurrent midshaft and proximal hypospadias across multiple centres.

Patients and Methods: A retrospective review was conducted of patients undergoing LABOR repair for recurrent/complicated mid-penile and proximal hypospadias between 2014–2024 in three centres across two continents. Patients with severe curvature requiring urethral plate division or inadequate penile skin were excluded. Principle of the Technique Two glandular wings are mobilized. The lateral penile skin is mobilized and advanced, medially, maintaining its blood supply and sutured to midline skin and folded as an onlay flap to reconstruct the neourethra to the glans tip.

Results: Among 397 referred patients, 97 patients met the inclusion criteria. Median age was 3 years (range 22 months–49 years). Follow-up ranged from 1–11 years. Forty-four patients (45%) maintained long term follow up more than 5 years. Complete healing without complications occurred in 77 patients (79%). Complications occurred in 20 patients (21%) including: glans dehiscence (8%), fistula (9%), and meatal stenosis (3%). All were successfully corrected with a single procedure.

Conclusion: LABO is an effective option to correct recurrent mid-penile and proximal hypospadias with acceptable complication rates (21%) and favorable long-term outcomes.

Can Massage Replace the Knife? The Role of Post-Operative Steroid-Assisted Massage in Correcting Residual Chordee in Hypospadias

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Aim: To evaluate the effect of topical cortisone massage on residual curvature in patients undergoing staged repair of hypospadias.

Patients & Methods: 32 patients with severe chordee underwent staged hypospadias repair between 2024 and 2025. The mean age at first-stage was 8 months and at second-stage 14 months. Residual curvature was more than 20 degree at the end of the first stage. One month after surgery, parents performed penile massage with topical cortisone for 2 months. All patients underwent the same surgical technique and assessment protocol. Curvature was reassessed intraoperatively during the second stage. Follow up is one year.

Results: The mean residual curvature after the first stage was 32°. At the second stage, 27 patients (84%) achieved straight penis. Five patients showed no major improvement; two cases did not adhere to the massage protocol, while three cases had significant scarring and required reoperation. Discussion: Penile massage with cortisone is effective in reducing residual curvature, by improving blood supply, tissue elasticity, limiting fibrosis and manual straightening. Outcomes are highly dependent on parental compliance and tissue quality.

Conclusion: Postoperative penile massage with cortisone is a simple and effective approach to correct residual chordee in staged hypospadias repair with high success rate.



Corpus Spongiosum Reconstruction in Hypospadias Treatment: Clinical Value and Research

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Hypospadias is characterized not only by an ectopic urethral meatus and ventral penile curvature, but also by dysplasia of the corpus spongiosum. Histological studies have demonstrated that the spongiosum in hypospadias exhibits reduced vascular density, dilated vascular spaces, thickened vascular walls, and aberrant smooth muscle cell phenotypic modulation, suggesting that spongiosal defects may represent a key pathological basis for suboptimal cosmetic and functional outcomes as well as postoperative complications. In clinical practice, spongiosum reconstruction is involved throughout hypospadias repair, including ventral corporal lengthening during chordee correction and integrated spongiosal coverage during urethroplasty, both of which may enhance neourethral support and reduce fistula formation and glans-related complications. In addition, emerging studies have shown that exosomes can promote spongiosal defect repair and regeneration of sinusoid-like vascular structures, whereas low-intensity pulsed ultrasound (LIPUS) may induce restoration of the contractile phenotype in corpus spongiosum smooth muscle cells, providing novel insights into tissue-engineered reconstruction. Collectively, reconstruction of the corpus spongiosum may play an important role in improving anatomical restoration and functional outcomes in hypospadias repair, and merits further investigation in both basic and translational settings.

Urinary Trauma

Girls or Boys: Who Is More Likely to Be Seriously Injured? A Cohort Study of Pediatric Genital Trauma

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Aim: We set out to characterize the mechanisms, anatomical patterns, and clinical management of pediatric genital trauma treated at a tertiary referral center, focusing on whether sex influences the likelihood of procedural intervention and overall resource use.

Material-Method: We reviewed 121 children, aged 0–18 years who presented with genital trauma over a five-year period. For each patient we recorded age, sex, injury mechanism, anatomical location, management strategy, need for intervention, length of stay, and follow-up documentation. Surgical repair and manual detorsion were logged separately from conservative care. Between-group comparisons were made using chi-square and Fisher's exact tests.

Results: The cohort included 68 girls(56.2%) and 53 boys(43.8%), with a mean age of 85.1 ± 34.7 months. Falls dominated overall(69.4%) but were far more prevalent in girls(86.8% vs.47.2%). Girls most often sustained labial(61.8%) and posterior commissure(30.9%) injuries; boys presented predominantly with penile(50.9%) and scrotal(45.3%) trauma. The majority of patients were managed conservatively(85.1%), yet boys required intervention at more than four times the rate of girls(26.4% vs. 5.9%, $p=0.002$) and had longer median hospital stays(6.5vs.2 hours).

Conclusion: Pediatric genital trauma is usually minor and resolves without surgery, but boys are disproportionately likely to need procedural intervention. Recognizing these sex-specific patterns early should help clinicians triage more.

Laparoscopic Approach for Pelvic Fracture Urethral Injuries

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Aim: To study laparoscopic approach for pelvic fracture urethral disconnection injuries Patients: Two children, one girl and one boy underwent surgery for urethral disconnection after pelvic fracture. The girl was 15 years old and the injury was 2 years old. She had a distal urethro- vaginal fistula with a bivalved vagina. A complete laparoscopic repair was done to close the fistula, recreate vagina and repair bladder with urethra. The boy was 12 years old and had a 4 months old fracture causing disconnection at the level of bladder neck/proximal urethra which is higher than usual. There was a large callous within the sphincter which was removed laparoscopically and despite mobilisation the bladder could not be brought to the perineum. An inverted U-shaped flap was taken to recreate urethra of about 5 cms which was then anastomosed in the perineum.

Results: The girl has good bladder capacity and urinary continence at one year after surgery. The boy is three months post surgery and has a poor urinary stream. He is undergoing pelvic rehabilitation.

Conclusion: Pelvic fracture induced urethral injuries are very complex and require anatomical and functional reconstruction. Laparoscopy or robotics offers an excellent avenue to do both.

Using A U-Shaped Skin Graft to Create a Neo-Penile Glans in Cases of Penile Injury

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Penile glans amputation is a rare and catastrophic complication resulting from circumcision or trauma. Reconstruction of the penile glans is often indicated following such injuries. This report presents an alternative technique for reconstructing the amputated penile glans Seven cases were evaluated: 7-year-old male who sustained bicycle-related injury, and five patients after iatrogenic circumcision. The parents reported severe meatal stenosis in 4 patients and loss of the glans in all cases. Surgical intervention included complete penile degloving. The distal part of the remaining penis was prepared by excising fibrous tissue. U-shaped skin graft was harvested from the inguinal and inner arm area and placed over the tip of the remnant penis, extending cranially along both lateral sides. 6/0 PDS mattress sutures. The freed urethra and spongiosum were incorporated into the reconstructed structure. Postoperatively, the urethral catheter was removed after 7 days, and betamethasone ointment was applied to facilitate smooth healing. Follow-up examinations revealed a glans-like cosmetic structure, and all patients achieved normal urination. This technique offers an alternative to buccal mucosa grafts for neoglans creation. Using an inguinal skin graft is a straightforward and effective method, providing acceptable cosmetic and functional outcomes for late reconstruction of the penile glans after amputation.



Circumcision-Related Complications in Pediatric Patients: A Tertiary Center Experience

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Aim: This study evaluated the types, severity, and clinical outcomes of circumcision-related complications and identified procedural factors associated with worse outcomes.

Methods: We retrospectively reviewed 232 pediatric patients presenting with circumcision-related complications between September 2018 and December 2025. Data collected included age, circumcision setting, provider background, complication type, management strategy, and clinical outcome. Complications were classified as early or late and graded by the level of intervention required. Appropriate statistical methods were applied for analysis.

Results: Mean age was 46.8 ± 34.1 months. Bleeding was the most common complication (74.3%), followed by penile swelling or hematoma (17.8%) and infection (4.3%). The majority of patients were managed conservatively (91.8%), while 8.2% required surgical intervention and 14.7% required hospitalization. Both surgery and hospitalization rates were significantly higher when circumcision was performed outside a hospital setting or by a non-physician provider ($p < 0.001$). Long-term complications occurred in 12.9% of cases and were strongly associated with the nature of the initial complication.

Conclusion: Most circumcision-related complications resolve with conservative management. However, procedural setting and provider qualifications significantly influence complication severity and clinical outcomes. Restricting circumcision to properly supervised medical settings remains the most effective and actionable measure to reduce the risk of serious complications requiring surgical intervention.

Management of Kidney Trauma in Children

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A kidney trauma is present in 10 to 30% of abdominal traumas; most often closed (95% of cases). The development of imaging in the last decade has facilitated the diagnostic approach as well as the management of treatment. Currently, conservative treatment in the management of closed kidney traumas is the rule. This approach is fully recognized in the case of a low-grade trauma (grades 1 and 2). It remains controversial for major traumas. The aim of our study is to present the results of our therapeutic management of closed kidney traumas hospitalized over the past 15 years, to analyze them and compare them with the literature. Patients and methods From January 2015 to January 2026, 40 children were admitted to the C.C.I CHUB for a closed kidney trauma. Hospitalization monitoring for 10 days, the majority checked twice: long- and medium-term complications.

Conclusion: The complete initial assessment of the lesions is the guarantee of adequate therapy. the treatment is controversial for severe grades. Vital prognosis is rarely at risk. Treatment should be as conservative as possible. The development of endo-urolological drainage techniques contributes to maintaining this approach and minimizes the need for nephrectomy even in severe traumas.

Testis

Can We Predict Which Cryptorchidism Will Descend? A Cohort Study in 976 Korean Neonates

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Purpose: To determine the incidence and perinatal risk factors of undescended testis (UDT) in neonates and identify predictors of persistence at 6 months.

Materials and Methods: This retrospective cohort study included 976 male neonates born at Chonnam National University Hospital between January 2018 and December 2023. Variables analyzed included birth weight, gestational age, Apgar score, delivery mode, urogenital anomalies, maternal age, maternal estrogen exposure, and family history. UDT was diagnosed at birth, and spontaneous descent was evaluated at 6 months. Logistic regression identified independent predictors.

Results: UDT incidence was 8.8% (86/976), significantly higher in preterm versus term infants (28.1% vs. 3.1%, $p<0.001$). Independent risk factors for UDT at birth included low birth weight (OR 3.82, $p<0.001$), prematurity (OR 2.75, $p=0.001$), maternal estrogen exposure (OR 2.57, $p=0.006$), and urogenital anomalies (OR 2.13, $p=0.026$). Spontaneous descent occurred in 72.1% by 6 months. Urogenital anomalies predicted persistence (OR 0.32, $p=0.028$), whereas prematurity, low birth weight, and maternal estrogen exposure were associated with higher spontaneous descent rates.

Conclusions: UDT is relatively common, especially in preterm infants. Most cases resolve by 6 months, but associated urogenital anomalies predict persistence, warranting closer monitoring and earlier surgical consideration.

Evaluation of Long-Term Outcomes of Patients Who Underwent Laparoscopic Orchiopexy with the Fowler–Stephens Technique for Non-Palpable Testis Using Scrotal Elastography

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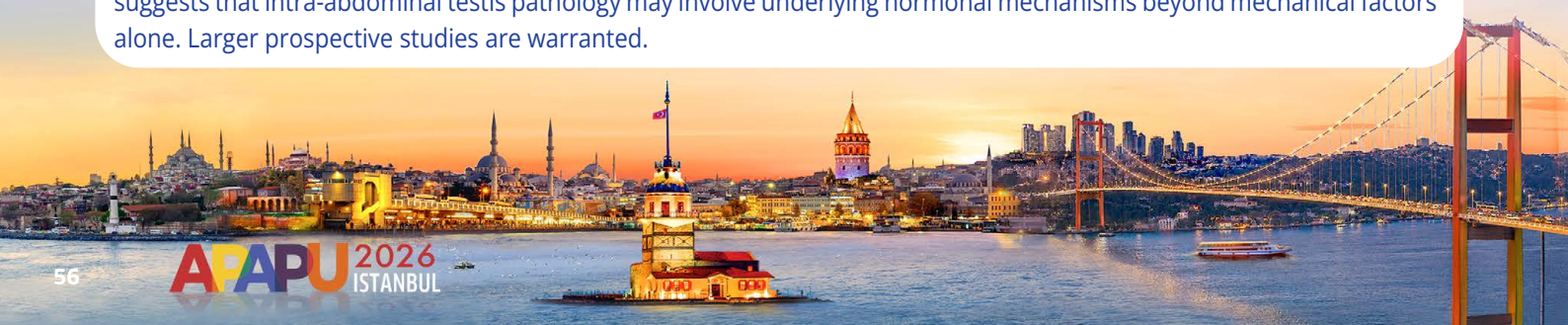
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Introduction and Aim: Non-palpable testis (NPT) accounts for approximately 20% of undescended testes and is frequently intra-abdominal. The two-stage Fowler–Stephens (FS) procedure is the preferred surgical approach in such cases. This study assessed long-term outcomes of laparoscopic FS orchiopexy using scrotal elastography.

Methods: Patients undergoing laparoscopy for NPT between 2009 and 2025 were retrospectively reviewed. Unilateral cases managed with two-stage FS technique and followed for at least 6 months were included. Testicular size, heterogeneity, and shear wave velocity (SWV) at six points were measured by ultrasound elastography.

Results: Among 184 NPT patients, 25 of 54 eligible patients underwent elastography, yielding 58 testes for analysis. Mean age at first and second FS stages was 30.6 and 38.1 months, respectively; mean age at evaluation was 127.44 months. Ultrasound revealed heterogeneity in 11 patients. Median SWV was 1.81 m/s ipsilaterally and 1.70 m/s contralaterally, with no significant inter-side difference ($p>0.05$). Both values exceeded published normal ranges (1.06–1.26 m/s).

Conclusion: Elastography is a valuable non-invasive tool for post-FS testicular assessment. Elevated SWV in both testes suggests that intra-abdominal testis pathology may involve underlying hormonal mechanisms beyond mechanical factors alone. Larger prospective studies are warranted.



Scrotal Orchidopexy: Can Distal Simple Closure (DiSC) fix Patent Processus Vaginalis (PPV) without Inguinal Incision?

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Objectives: To evaluate the effectiveness of our novel Distal Simple Closure (DiSC) technique to manage (PPV) during Scrotal orchidopexy precluding the need for an additional inguinal incision.

Patients and Methods: Between 2016 and 2024, mid-scrotal orchidopexy was performed on 231 testicles in 143 children (88 bilateral), mean age of 6 ± 3.1 years. After dissection and mobilization of the testicle, the tunica vaginalis was opened, everted, and the testicle was fixed. If a patent PPV was identified, the DiSC technique was applied. This involved opening the PPV anteromedially as cranially as possible, distal to the external ring, followed by internal closure in a circular pattern using 7-0 Vicryl sutures, carefully avoiding injury to the cord structures. Follow-ups were conducted at 1 week, 2 months, and 1 year.

Results: All testicles were successfully brought into the scrotum. PPV was identified in 13 cases (5.2%) and effectively closed using the DiSC technique. At the end of the follow-up period, all patients had testicles in place with no hernias.

Conclusion: In properly selected patients for Scrotal orchidopexy, our novel DiSC approach is a sufficient method for closure. An additional inguinal incision should be reserved for cases with a short cord.

Refining Redo Orchiopexy: The Role of 3-Month Clinical Assessment and a Scrotal-First Approach in Recurrent Undescended Testis

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Objective: Redo orchiopexy (RO) is technically demanding due to fibrosis, distorted tissue planes, and adhesions around the vas deferens and testicular vessels. While the inguinal approach is conventional, the role of a scrotal-first strategy in selected redo cases remains unclear. We evaluated indications, timing, and outcomes of redo orchiopexy, focusing on the clinical value of 3 month follow-up and feasibility of a scrotal-first approach.

Methods: A retrospective review of 2,672 orchiopexies performed between 2015-2025 was conducted. Patients requiring RO were included. Reoperation was based on early follow-up, 3-month physical examination, parental observations, scrotal ultrasonography assessing testicular position, echogenicity, vascularity, volume. Failure of stable scrotal positioning or adverse ultrasound findings constituted indications for redo surgery.

Results: RO was required in 32 patients, involving 41 testes; 9 patients had bilateral involvement. Mean age at redo was 67.8 months, with a mean follow-up of 36 months. A scrotal-first approach was initiated in 31 patients, requiring additional inguinal dissection in 8 cases. Complications included one hematoma, one orchiectomy; three patients required further intervention.

Conclusion: The 3-month assessment is a critical decision point for timely redo orchiopexy. In appropriately selected patients with palpable testes in the distal inguinal canal or high scrotum, a scrotal-first approach is a safe and practical strategy.

Manual Testicular Detorsion by Emergency Clinicians

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Aim: To determine the success of Manual Testicular Detorsion (MTD) by emergency clinicians (EC) follow encouragement by our Urologists in 2020.

Material and Method: Review of 120 aged 0.8–19.7 years with testicular torsion between 01/21-08/25.

Results: MTD was attempted in 74.2% (n=89/120) and successful in 58.4 % (resumption of blood flow) when presenting in median time of 3.5 hours of symptom onset. Successful MTD 89.9% were performed by EC. In three patients, a urologist succeeded when an EC failed MTD. Narcotic/sedation in 64.0% did not improve success of MTD (p=0.23). Successful MTD median time to OR was 12.8 hours (2 hrs-46 days); 12 went to OR > 24hrs. There were no orchiectomies in successful MTD and 43.2% (n=16/37) in unsuccessful MTD. 7.7% (n=4) of successful MTD patients had partial torsion intraoperatively (0=atrophy). Median follow up in 71.7% was 49.5 days. Successful MTD had 96.9% (n=31/32) testicular viability without atrophy compared to only 76.0% (n=19/25) without successful MTD (p=0.036).

Conclusion: EC successfully performed MTD and improved overall outcomes. Successful MTD allows for delayed time to OR for elective testicular fixation. Emergency clinicians' training programs should incorporate MTD in their curriculum as the standard of care for those with acute testicular torsion.

Clinical Outcomes and Operative Findings After Manual Detorsion in Acute Testicular Torsion: Residual Torsion Is Common

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Background: Manual detorsion is often attempted in the emergency department for patients with suspected testicular torsion to rapidly restore blood flow before surgical exploration. Whether it achieves complete detorsion and whether delaying surgery after successful reduction is safe remain uncertain.

Methods: We retrospectively reviewed patients diagnosed with testicular torsion who underwent surgical exploration at our institution between 2025 and 2026. Clinical characteristics, timing and direction of manual detorsion, intraoperative findings, and follow-up ultrasonography were analyzed.

Results: A total of 9 patients were included: 7 with acute torsion and 2 with intermittent torsion. Manual detorsion was attempted in all 7 acute torsion patients shortly after arrival at the ER. The median time from ER arrival to manual detorsion was 34 minutes (range, 29–60 minutes). Despite clinical improvement after manual detorsion, residual torsion was identified intraoperatively in 4 of 7 patients (57%), most commonly as a remaining 180° twist. Among these cases, two were under-corrected and two were over-corrected during manual detorsion.

Conclusion: Manual detorsion can be safely attempted and may help preserve testicular viability. However, residual torsion is common despite clinical improvement, and clinical improvement does not necessarily indicate complete detorsion. Surgical exploration should therefore not be delayed.



Application of Domestic Single-Port Serpentine Arm System in High Ligation for Adolescent Varicocele

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Objective: To investigate the safety and feasibility of applying domestic single-port serpentine arm system in super-selective high ligation of the internal spermatic veins for adolescent varicocele.

Methods: Clinical data of 67 pediatric patients with varicocele from January 2025 to January 2026 were collected. Inclusion criteria were subjective symptoms and positive ultrasound diagnosis, while exclusion criteria included subclinical symptoms and secondary varicocele. All cases underwent surgery using the Surui single-port serpentine arm system to identify the internal spermatic arteries, veins, and lymphatic vessels, followed by super-selective high ligation of the internal spermatic veins.

Results: All surgeries were successfully completed. The mean console time was (39.4 ± 23.5) min, and the mean postoperative hospital stay was (1.9 ± 0.5) days. Postoperative testicular volume increased significantly compared to preoperative measurements ($P < 0.05$). Follow-up ultrasound showed no recurrence of varicocele, testicular atrophy, hydrocele, or other complications.

Conclusion: The use of the domestic single-port serpentine arm system for super-selective high ligation of internal spermatic veins effectively identifies and preserves the internal spermatic arteries and lymphatic vessels, promoting postoperative catch-up growth of the testis. This technique is safe and feasible, offering a novel minimally invasive surgical option for the treatment of adolescent varicocele.

Active Surveillance of Discontinuous-type Splenogonadal Fusion

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Introduction: Splenogonadal fusion (SGF) is a rare congenital anomaly of ectopic splenic tissue, categorised as continuous or discontinuous. Management often requires surgical excision to rule out paratesticular lesions. This report assesses the efficacy of active surveillance in siblings with discontinuous-type SGF.

Patients and Methods: Two siblings presented with paratesticular masses. A 6-year-old boy had a painless, firm left-sided mass. Evaluation, including tumour markers, ultrasound, and MRI, confirmed a 2-cm discontinuous-type SGF. He has been on active surveillance for 2 years; serial ultrasounds show mass stability. The second sibling, a 4-year-old boy, was evaluated post-left orchidopexy for an undescended testis at another facility. A similar mass was identified as a discontinuous-type SGF requiring no further surgery. Parents were counselled on potential complications, including bleeding.

Results: Both siblings remained clinically stable throughout follow-up without complications. The 6-year-old's mass was unchanged, and the 4-year-old remained asymptomatic. Parental education ensured a comprehensive understanding of the surveillance protocol and recognition of symptoms requiring immediate care.

Conclusion: This report advocates a paradigm shift in the management of discontinuous-type SGF. Active surveillance is a viable alternative to excision, preserving the testis and preventing unnecessary surgery. Proper parental counselling regarding bleeding risks and urgent symptom recognition remains essential.

Miscellaneous

Posterior Urethral Polyp: Diagnostic Pathway and Critical Surgical Nuances

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Objective: Posterior urethral fibroepithelial polyps (PUFP) are rare congenital lesions that can mimic bladder outlet obstruction in children. This study aims to summarize the diagnostic pathway, associated anomalies, and critical technical details in endoscopic treatment that may be overlooked.

Materials and Methods: Two male patients diagnosed between 2023 and 2026 were retrospectively reviewed. Clinical presentation, ultrasonography, cystoscopy, associated upper urinary tract abnormalities, surgical techniques, and outcomes were analyzed.

Results: The first patient, aged 2.5 months, presented with suspected low urinary flow. Ultrasonography identified a 4×3.5×5 mm polypoid lesion extending from the bladder neck. Cystoscopic laser excision was performed; histopathology confirmed a fibroepithelial polyp. The second patient, aged 18 months, was evaluated for antenatal hydronephrosis. Cystoscopy revealed a prostatic urethral polyp associated with minimal PUV, while retrograde pyelography showed a concomitant UPJO. The polyp was excised using monopolar cautery, and the valves were incised with a cold knife. Post-operative urinary drainage improved in both cases.

Conclusion: PUFP should be considered in children with unexplained lower urinary tract symptoms or antenatal hydronephrosis. Although rare, careful ultrasonographic assessment and cystoscopic confirmation are essential. Endoscopic excision is safe, effective, provided that the verumontanum, sphincteric structures, ureteric orifices are meticulously preserved to ensure postoperative continence.

Frequency and Risk Factors of Urinary Tract Infection in Pediatric Patients Undergoing Double-J Stent Placement

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Objective: To evaluate the frequency of urinary tract infection (UTI), associated risk factors, and causative microorganisms in pediatric patients undergoing double-J (DJ) ureteral stenting.

Materials and Methods: We retrospectively reviewed 124 children who underwent DJ stent placement between 2020-2026 (male/female: 72/52; mean age: 4.8±3.6 years). Patients were grouped by underlying pathology, surgical approach, stent dwell time, age, and preoperative UTI history. Symptomatic UTI was defined as compatible clinical findings with urine culture growth of $\geq 10^5$ CFU/mL.

Results: Symptomatic UTI developed in 34 patients (27.4%) during stent indwelling. Infection rates were significantly higher when stent duration exceeded 4 weeks than when it was 4 weeks or less (38.1% vs. 16.4%, $p=0.004$), and in children with a preoperative UTI history than in those without (40.4% vs. 19.5%, $p<0.05$). Infants younger than 1 year had higher rates than children older than 5 years (36.4% vs. 22.6%, $p<0.05$). The highest rates were observed in stone disease, vesicoureteral reflux. *Escherichia coli*, *Klebsiella* spp., *Enterococcus* spp. were the most frequent pathogens; multidrug resistance was present in 31%.

Conclusion: Prolonged stent dwell time, prior UTI, younger age, stone/VUR pathology increase infection risk. Minimizing stent duration, ensuring prophylaxis, close surveillance of highrisk patients may reduce complications.

Early Outcomes of Anatomical Repair with External Corporal Rotation for Primary Male Epispadias: A Case Series

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Aim: To evaluate early outcomes, feasibility, and safety of anatomical repair with external corporal rotation for primary male epispadias in a 10-case series.

Patients and Methods: Ten boys with primary male epispadias underwent repair using a unified anatomical approach. Preoperative assessment included upper-tract ultrasound and cystourethroscopic evaluation of the bladder capacity, bladder neck, and sphincteric mechanism. The repair included glans-sparing incomplete penile disassembly, mobilisation of the corpora cavernosa from the urethra/spongiosum complex without glans disassembly, two-layer urethroplasty over a catheter ($\geq 10\text{Fr}$), dorsal glansplasty, external corporal rotation, and penile skin reconstruction. Descriptive analysis used frequencies/percentages for categorical outcomes and medians/ranges for continuous variables.

Results: Median age at surgery was 3 years (range:1–8). Epispadias was midshaft in 5 patients and penopubic in 5. Minimum follow-up was 6 months. Chordee correction was achieved in all-(10/10) cases, with satisfactory lengthening (corporal exteriorisation), stable dorsal corporal coaptation and maintained ventral spongiosal position. No urethrocutaneous fistula, glans dehiscence, glans ischaemia, or early reoperation was recorded. Continence was favourable overall, although outcomes in proximal (penopubic) cases require longer assessment.

Conclusion: Anatomical repair with external corporal rotation appears safe and feasible for primary male epispadias, providing reliable anatomical correction and satisfactory early functional outcomes without significant early complications.

The Method of Preparing Microcystis of Bladder Exstrophy (BE) for Delayed Primary Closure

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The small size and poor elasticity of the bladder plate makes difficulty the primary closure (PC) BE and its further growth. 387 children with BE were operated on from 1998-2025. PC was performed on 243 patients. Microcystis 87 (23.6%) children. The method for preparing microcystis ($<3\text{cm}$) were performed in 8 newborns (5-12 days) at 2020-2024. The ring of aponeurosis around the bladder plate was dissected in the radial direction for 1.5 cm at 10-12-2 hours o'clock. Was observed the greater protrusion of the bladder plate after increase in intra-abdominal pressure. Additionally, mucosal polyps were excised, the bladder wall was injected with a solution of botulinum toxoid type A 50 U.

Results: An increase the bladder (3-to 6cm) was observed in 6 children (75%) in the period from 12-30 months. All underwent successful delayed PC with reimplantation of the ureters, bladder neck tailoring, pelvic osteotomy. We are noted partial urinary continence and bladder growth. In two children (25%), bladder distension was insufficient, PC has been performed, but there is no continence and bladder growth.

Conclusion: This method of preparation made it possible to avoid 100% recurrence of BE and to achieve further growth of bladder in children with an elastic wall.

Differentiated Approach to Pelvic Osteotomy in Bladder Exstrophy

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Introduction: Iliac osteotomy reduces soft tissue tension in children older than 4–5 months during primary, secondary, or delayed bladder closure. The indications for pubic osteotomy remain a matter of discussion.

Materials And Methods: From 2005–2025, 162 patients with bladder exstrophy underwent pelvic osteotomy. Group 1 (n=155, 7d–43y): intrapelvic iliac osteotomy. Group 2 (n=5, 7–17y): derotational and lengthening pubic osteotomy (indicated for bladder neck reconstruction, improves penile exposure in boys and genital appearance in girls). Group 3 (n=2 adolescents): combined iliac and pubic osteotomy.

Results: The planned urological outcome was achieved in all cases. The interpubic diastasis was reduced by a mean of 65%. Complications occurred in three patients from Group 1 (1.9%): marginal injury to a branch of the gluteal artery (controlled by packing) and unilateral upward displacement of the hip joint in two patients (managed conservatively).

Conclusion: In patients older than 5–7 years undergoing bladder neck reconstruction — and in order to improve genital appearance in girls or lengthen the penis in boys — lengthening pubic osteotomy with correction of external rotation is often indicated. This may be combined with iliac osteotomy when necessary.

Management of Pregnancy and Delivery in Female Patients After Augmentation Cystoplasty: The operation method considering pregnancy and delivery

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Aim: To examine pregnancy and delivery outcomes in women who underwent sigmoid colon cystoplasty with retroperitoneal mesentery placement, a technique designed to reduce cesarean section complications.

Material and Method: A retrospective review was conducted at three institutions to identify women who conceived after augmentation cystoplasty. Pregnancy-related complications, delivery outcomes, and intraoperative findings at cesarean section were evaluated.

Results: Six pregnancies occurred in five patients after augmentation cystoplasty; three underwent sigmoid colon cystoplasty with retroperitoneal mesentery placement and two underwent ileocystoplasty. Median age at augmentation cystoplasty was 11 years. Hydronephrosis (66.7%) and pyelonephritis (50%) were the most frequent complications. No patient required nephrostomy or ureteral stenting. Urinary incontinence worsened in two pregnancies but resolved postpartum. Pre-delivery magnetic resonance imaging provided useful anatomical information in four pregnancies. All deliveries were by cesarean section. In ileocystoplasty patients, the uterus was covered by the mesentery of the augmented ileal segment, whereas no mesenteric coverage of the uterus was observed after sigmoid colon cystoplasty. No vascular pedicle or bladder injuries occurred.

Conclusion: Pregnancy after augmentation cystoplasty requires multidisciplinary care. Sigmoid colon cystoplasty with retroperitoneal mesentery placement may facilitate safe cesarean delivery and may be a useful option for women desiring future pregnancy.



Fungus Ball in The Urinary System as a Cause of Mortality And Morbidity

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Background: Urinary tract fungus balls are rare but potentially life-threatening, particularly in neonates and infants with prolonged hospitalization and broad-spectrum antibiotic exposure. Delayed diagnosis risks obstructive uropathy, systemic infection, and increased mortality.

Methods: This retrospective study evaluated six infants (3 male, 3 female; aged 48 days–7 months) diagnosed with urinary tract fungus balls between January 2018 and March 2024. Clinical data, risk factors, diagnostic methods, treatment strategies, and outcomes were analyzed. All patients underwent ultrasonography and urine culture; *Candida albicans* was identified in each case.

Results: All patients had a history of ICU admission and broad-spectrum antibiotic use. Fluconazole was the initial antifungal agent; Ambisome and voriconazole were added in resistant cases. Surgical interventions included ureterorenoscopy in three patients and bilateral ureterocutaneostomy in one. Nephrostomy for antifungal irrigation was performed in four cases. Five patients demonstrated clinical and radiological improvement; one died due to *Candida* sepsis despite aggressive management.

Conclusions: Urinary tract fungus balls should be considered in infants with urinary obstruction and a history of prolonged antibiotic use or NICU admission. Early diagnosis, prompt antifungal therapy, and timely mechanical removal are critical for improving outcomes. Heightened awareness among pediatric surgeons and urologists is essential for optimal management.

Multistage Surgical Management of a Rare Case of Ischiopagus Parasitic Twin with Caudal Duplication Anomalies

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Aim: To demonstrate the outcomes of a multidisciplinary surgical approach in a patient with ischiopagus parasitic twinning and incomplete caudal duplication.

Materials and Methods: A male patient presented with ischiopagus parasitic twinning, incomplete caudal duplication, imperforate anus (fistula-less), accessory lower limbs, penile duplication (diphallia), bifid scrotum with testicular ectopia, accessory pelvic kidney, and hypospadias. A staged surgical strategy was performed: (1) Excision of the caudal parasitic twin; (2) Excision of the accessory phallus, testicular repositioning, scrotoplasty; (3) Anorectoplasty; (4) Colostomy closure; (5) Perineogenitoplasty and urethroplasty.

Results: Satisfactory cosmetic and functional results were achieved. The patient's musculoskeletal function and lower limb sensitivity were preserved (the child sits, runs). Controlled defecation is established, and a functional urethra is formed.

Conclusion: The reported multidisciplinary surgical protocol allowed for successful anatomical and functional outcomes, essential for the patient's social adaptation.

ABSTRACTS

POSTERS



A National Screening Program for Undescended Testis in Preschool Boys

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Aim: Undescended testis (UDT) affects 1–2% of preschool boys, emphasizing the importance of routine physical examinations for early detection. This study assesses the prevalence and effectiveness of a national UDT screening programme.

Patients & Methods: The programme was initiated through collaboration between the Ministry of Health's School Health Department and a tertiary Paediatric Urology Unit. Data were collected prospectively from September 2023 to December 2024. Initial school examinations led to follow-up clinic assessments and parental counselling for any abnormalities. Referrals to our department included examination reports, with electronic feedback on diagnoses and treatments returned to the school health department.

Results: Of the 31,407 boys scheduled, 20,335 (64.7%) were examined, resulting in 285 referrals. Among these, 71 (24.9%) had normal findings, 104 (36.5%) had UDT requiring orchidopexy, and 110 (38.6%) had retractile testes requiring follow-up. Overall, 214 patients required intervention, representing ~1.05% of those examined.

Conclusion: This programme effectively screened over 20,000 preschool boys, highlighting the vital role of routine examinations in UDT detection. The referral volume underscores the importance of collaboration between school health services and paediatric urology units to ensure timely interventions and improve paediatric health outcomes.

Artificial Intelligence-Assisted Patient Education: Unlocking ChatGPT's Potential in Congenital Hydronephrosis Awareness

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Introduction: ChatGPT holds potential for enhancing awareness of congenital hydronephrosis. This study evaluates ChatGPT's ability to deliver clear, actionable, and user-friendly information in this domain.

Methods: ChatGPT 4.0 answered questions spanning diagnosis, treatment, and postoperative care of congenital hydronephrosis. Eight pediatric urologists independently assessed the responses using the CDC Clear Communication Index. Scores above 90% denote optimal communication quality.

Results: The total score for this study was 61.92%, with the understandability scores for diagnostic, treatment, and postoperative care being 64.10%, 60.92%, and 60.75%, respectively. These results showed the information sources ought to be updated, especially in relation to the elements that received the lowest scores.

Discussion: ChatGPT shows promise in advancing patient education on congenital hydronephrosis. Incorporating iterative learning, domain-specific training, and expert oversight can enable this tool to better bridge the gap between complex medical knowledge and patient comprehension.

Beyond Pneumoperitoneum: Alternative and Innovative Uses of the Veress Needle - A Systematic Review

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Aim: The Veress needle is a well-known instrument in minimally invasive surgery. Although it was originally developed to induce artificial pneumothorax to treat tuberculosis, due to the rapid spread of minimally invasive surgery, it is now primarily known as an instrument used for the creation of pneumoperitoneum. The aim of this study was to summarize the alternative and innovative applications of the Veress needle documented in the literature.

Materials and Methods: Following PRISMA 2020 guidelines, a systematic search was conducted on PubMed, Scopus and Cochrane Library databases to identify and categorize documented non-conventional applications of the Veress needle. Methodological quality was assessed using the Mixed Methods Appraisal Tool. Fifty-four studies met the inclusion criteria and were included in the qualitative synthesis.

Results: The included studies were categorized into five groups: 1) Alternative Surgical Access and Techniques, 2) Monitoring and Diagnostics, 3) Fluid and Gas Management, 4) Drug and Substance Delivery, and 5) Experimental Models and Pre-clinical Validation. Methodological quality was predominantly moderate (83%).

Conclusion: To the best of our knowledge, this is the first systematic review to highlight that this nearly century-old invention is now considered a multifunctional tool in modern minimally invasive surgery.

Bilateral Megaureter in Children: Why Isolated Relief of Infravesical Obstruction Is Insufficient — A Prospective Study of 189 Patients

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Background: infravesical obstruction often underlies bilateral megaureter. Inadequate its assessment and incomplete correction represent the primary cause of failed megaureter treatment. Potential for restoring urinary tract urodynamics solely by relieving IVO along with the risk of requiring additional interventions, remains unknown.

Objective: To evaluate the types of IVO in children with bilateral megaureter and their role in its development and treatment.

Methods: A prospective study of 189 patients with bilateral megaureter (6 females, 183 males). Assessment included ultrasound, DMSA/MAG3- scintigraphy, VCUG, urethrocystoscopy, urodynamic evaluation.

Results: IVO was identified in 114 patients: PUV (99), strictures (8), urogenital sinus (2), hypospadias with meatal stenosis (5). Isolated valve ablation without upper tract intervention was performed in 12 patients. The remainder required endoscopic balloon dilatation (46) and/or ureterocutaneostomy (52) after stricture correction or hypospadias repair, as well as primary ureterocystoanastomosis (n=4). MAG3-scintigraphy predicted the need for subsequent megaureter correction (92% efficacy). OAB therapy was indicated for all patients; botulinum toxin detrusor injection was required in 18 patients. Vesicostomy was performed in 2 girls with urogenital sinus and 16 boys with urethral valves.

Conclusion: Despite the significant role of IVO in congenital bilateral megaureter, isolated relief is insufficient. The vast majority of patients require subsequent correction of upper and lower urinary tract urodynamics.



Can Artificial Intelligence-Based ChatGPT Enhance Patient Education in Undescended Testis Cases?

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Introduction: ChatGPT is popular among medical students and professionals, particularly in clinical applications like undescended testis, a congenital anomaly affecting fertility and long-term health. However, evaluating ChatGPT's accuracy and consistency is crucial for its effectiveness. This study investigates ChatGPT's ability to provide accurate, accessible, and culturally appropriate educational content about undescended testis (cryptorchidism).

Methods: ChatGPT 4.0 was used to answer 15 structured questions about diagnosis, treatment, and postoperative care for undescended testis. The Suitability Assessment of Materials tool evaluated responses based on content quality, literacy demand, and cultural relevance. Nine pediatric urologists participated in the assessment, converting scores into percentages.

Results: ChatGPT achieved an overall SAM score of 77.62%, categorizing the material as superior. Diagnosis averaged 72.26%, treatment scored the highest at 79.87%, and postoperative care reached 80.76%. All questions across domains surpassed the 70% threshold for superior classification. However, some responses demonstrated variability due to incomplete contextual accuracy.

Conclusion: ChatGPT exhibits strong potential as a patient education tool for undescended testis, delivering superior responses in diagnosis, treatment, and postoperative care. To enhance reliability, continuous evaluation, refinement, and adherence to ethical guidelines are essential for improving AI-driven health education platforms.

Complete Transverse Transection of the Bladder Neck Following Blunt Pelvic Trauma in a Child: A Case Report

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Complete transverse transection just at the level of the bladder neck is extremely rare. We present a case with associated pelvic fracture following trauma. A 8-year-old male child presented with a history of a fall from a cart with blunt trauma of the abdomen and pelvis. He was initially managed elsewhere where he was catheterized and then referred. His vitals were stable, but there were lower abdominal tenderness and gross hematuria. There was no perineal hematoma. His hemoglobin was 10 g**/dL, and blood urea and serum creatinine were normal. Abdominal ultrasonography showed free fluid with no solid organ injury. Contrast-enhanced computed tomography revealed a pelvic fracture with intraperitoneal and extraperitoneal bladder rupture with urinoma formation. After resuscitation, he was taken to surgery 8 hours after the injury. Through a Pfannenstiel extraperitoneal incision, the transurethrally inserted Foley catheter bulb was found lying freely in the pelvis and draining the hemorrhagic urinoma. There was complete transverse transection at the level of the bladder neck, with the bladder and urethra lying apart. The patient underwent early primary vesicourethral anastomosis with no postoperative complications and remains continent at follow-up.

Concomitant Obstruction of the Pyeloureteric Junction in infants

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Aim: The combination of internal and external causes (aberrant vessel) of PUJO in young children is controversial in choosing a type of surgery.

Materials and methods: A retrospective study of 195 medical records of infants operated on for hydronephrosis caused by PUJO from 2022 to 2024 was carried out. Compression of PUJ by aberrant vessel was detected in 27 children (13.8%).

Results: Prenatal ultrasound in the third trimester showed dilation of renal pelvis in 17 patients. Dilation of pelvis and decrease of parenchyma thickness after birth was found in all children and in nine percutaneous nephrostomy was made. On a CT scan of the kidneys with contrast enhance or antegrade pyelography PUJO was confirmed, additional vessel was found on CT scan in a half. All children underwent laparoscopic transperitoneal dissecting pyeloplasty according to Anderson-Hynes with antevasal anastomosis. Histomorphological examination showed submucosal fibrosis, atrophy of longitudinal and hypertrophy of circular muscle fibers, pronounced perimuscular fibrosis.

Conclusions: The surgeon to be extremely careful when mobilizing the lower pole of the kidney. Considering the morphological changes PUJ in all infants with an low pole aberrant vessel resection of PUJ.

Could Vitamin B12 Deficiency be an Underlying Cause of Non-Neurogenic Neurogenic Bladder?

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Introduction: Vitamin B12 deficiency causes peripheral neuropathy and may impair bladder dynamics, leading to urinary incontinence. Non-neurogenic neurogenic bladder (NNNB) describes significant bladder dysfunction with a neurogenic pattern in the absence of identifiable neuropathology. This study investigated whether B12 deficiency contributes to NNNB etiology in children.

Methods: Twenty-five patients diagnosed and followed for NNNB were retrospectively reviewed. Demographic characteristics, bladder dynamics, upper urinary tract findings, and serum B12 levels were recorded.

Results: Mean patient age was 13.5 years (13 girls, 12 boys). Twenty-two patients had a history of urinary tract infections and 14 had constipation. Prior treatments included alpha-blockers, TENS, and biofeedback; 16 patients were performing clean intermittent catheterization. Hydronephrosis was present in 10 patients and DMSA revealed renal scarring in 20. B12 levels were available for 19 patients; 7 (36%) were deficient, with a mean level of 309 pg/mL. This deficiency rate markedly exceeds the reported 4.1% prevalence among healthy Turkish children (normative mean: 436 ± 174 pg/mL).

Conclusion: B12 deficiency was detected at a substantially higher rate in children with NNNB compared to the general pediatric population, suggesting a potential contributory role in bladder dysfunction. Larger controlled studies are needed to confirm this association.

Development, External Validation and Nomogram Analysis of a Prediction Model for 3-Month First-Line Treatment Outcomes in Pediatric Nocturnal Enuresis: A Two-Center Retrospective Study

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Objective: To develop and externally validate a nomogram-based model for predicting 3-month efficacy of first-line treatment in children with nocturnal enuresis.

Methods: A total of 393 enrolled pediatric patients from two tertiary hospitals were included in this two-center retrospective cohort study after screening. The development cohort contained 315 cases (237 for training and 78 for internal validation), and the remaining 78 cases served as the external validation cohort. 3-month treatment efficacy was categorized into three grades: non-response, partial response, and response. LASSO regression was applied to screen predictive variables for constructing a Logistic regression model, which was further compared with Random Forest and XGBoost models. Model performance was comprehensively evaluated via ROC curves, calibration curves, Hosmer-Lemeshow test, and decision curve analysis.

Results: Seven predictors were identified: treatment adherence, daytime symptoms, baseline weekly enuresis frequency, sleep disorders, reduced bladder capacity, maximum urinary flow rate, and nocturnal polyuria. The Logistic model showed AUCs of 0.745, 0.794, and 0.680 in the training, internal validation, and external validation cohorts, respectively, with good calibration and clinical utility.

Conclusion: The validated nomogram model has excellent discrimination, calibration and clinical practicality, which can facilitate risk stratification and individualized treatment for children with nocturnal enuresis.

Ectopic Ureteral Opening

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Purpose of the study: Discussion of the anatomical, clinical, and therapeutic specificities of extravesical ureteral openings.

Introduction: This concerns a ureteral opening outside the bladder trigone. Under the term ectopic ureteral opening, one generally considers only the extravesical openings of the ureter.

Methods: We report three cases of ectopic ureteral opening, two of which occurred on a double system in female children, and the third case occurred on a single system in a boy. The anomaly was revealed in two cases by recurrent urinary infections and by permanent congenital incontinence, with preserved urination in the third case. The performed explorations allowed a precise morphological and functional study of the Pathology. A urinary endoscopy was performed in all three cases to locate the site of the ectopic ureteral orifice. The treatment consisted in one case of a superior polar heminephrectomy with subtotal ureterectomy, and subsequently an additional excision of the ureteral stump was necessary due to the persistence of reflux and urinary infections. In the other two cases, ureteral reimplantation was performed.

Results: the course was marked by the disappearance of clinical symptoms and the absence of reflux on control voiding cystourethrograms (VCUG).

Conclusion: Rare anomaly occurring on a double system.

Effect of Transcutaneous Tibial Electrical Nerve Stimulation on Bladder Function in Children with Overactive Bladder

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Objective: To evaluate the immediate and short-term effects of transcutaneous tibial nerve stimulation (TTNS) on bladder function and symptoms in children with overactive bladder (OAB).

Methods: In this prospective multicenter before-after study, 28 OAB children with confirmed detrusor overactivity or low compliance on pressure-flow study received a single 30-min TTNS session and immediate repeat urodynamics. Eighteen responders then underwent periodic TTNS (30 min, 3 times/week) for 2 months. Outcomes were assessed by the OAB Symptom Score (OABSS) and Incontinence Quality of Life (I-QOL) questionnaire.

Results: Immediately after TTNS, maximum detrusor pressure decreased (59.86 ± 27.71 vs. 43.04 ± 18.67 cmH₂O), bladder capacity ratio increased (0.56 ± 0.19 vs. 0.66 ± 0.15), and volume at first involuntary contraction increased (52.86 ± 31.48 vs. 72.64 ± 36.52 ml) (all $P < 0.05$). Compliance and post-void residual were unchanged. After 2 months, OABSS total (8.56 ± 1.89 vs. 6.33 ± 1.65), daytime frequency, urgency, and urge incontinence sub-scores improved, while nighttime frequency did not change; I-QOL increased (39.78 ± 9.30 vs. 50.78 ± 16.78) (all $P < 0.05$).

Conclusion: TTNS produces immediate urodynamic improvement in OAB children, increasing bladder capacity and reducing detrusor overactivity. Children with an immediate response achieve sustained symptom relief and better quality of life with regular treatment.

Evaluation of Bladder Function in Patients with Anorectal Malformations

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Aim: Bladder dysfunction is common yet frequently overlooked in patients with anorectal malformations (ARM). This study evaluated bladder function and lower urinary tract symptom (LUTS) outcomes in ARM patients.

Materials and Methods: Clinical data of 69 ARM patients followed between January 2012 and July 2025 were retrospectively reviewed. Demographic characteristics, ARM type, associated bladder dysfunctions, diagnostic modalities, and treatments were recorded.

Results: Among 69 patients (26 girls, 43 boys), urinary system pathology was present in 40. Hydronephrosis was detected in 10% of renal units, vesicoureteral reflux in 12%, and abnormal DMSA findings in 39%. Toilet training success and postoperative LUTS outcomes were significantly better in girls ($p < 0.001$). Age at definitive repair did not correlate with urinary incontinence ($p > 0.05$). Urodynamic studies in 20 patients revealed low cystometric capacity ($n=11$), low compliance ($n=10$), and detrusor-sphincter dyssynergia ($n=9$). Twenty patients required clean intermittent catheterization and 10 received anticholinergic therapy. No significant correlation was identified between ARM subtype and urodynamic findings ($p > 0.05$). Only 30% of patients maintained regular urological follow-up.

Conclusion: Bladder dysfunction is highly prevalent in ARM patients. Comprehensive family education and structured urological follow-up are essential for preserving upper urinary tract function and improving quality of life.

Evaluation of Urogenital Anomalies and Functional Urological Disorders in Children with Cerebral Palsy

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Objective: Children with cerebral palsy (CP) frequently have lower urinary tract dysfunction (LUTD), recurrent urinary tract infections (UTIs), and urogenital anomalies. We evaluated the prevalence and clinical features of urogenital anomalies and functional urological disorders in CP patients referred to a tertiary pediatric urology center.

Materials and Methods: We retrospectively reviewed 60 children with CP assessed from February 2020 to February 2026. CP subtype, referral indications, anomalies, and functional findings were recorded. Evaluation included physical examination, urinary ultrasonography, and uroflowmetry with post-void residual measurement. Urodynamics were performed in patients with non-invasive high-risk findings suggesting upper tract vulnerability.

Results: Mean age was 6.9 years. Although 42% were referred without urological symptoms, 58% had at least one anomaly or clinically relevant functional disorder. Cryptorchidism occurred in 35% (21/60). Recurrent UTIs were present in 28% and LUTD symptoms in 23%. Ultrasonography showed bladder wall thickening and/or increased residual urine in 20%. In high-risk cases, urodynamics consistently demonstrated detrusor overactivity, decreased bladder compliance, or detrusor-sphincter dyssynergia. Urogenital problems were most common in spastic CP.

Conclusion: Urogenital anomalies and LUTD are frequent in children with CP. Stepwise, systematic screening with non-invasive tests can identify high-risk patients early and help prevent irreversible upper urinary tract damage.

Free Video Uroflowmetry and Its Role in Evaluating Neurogenic Bladder in Children

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Introduction and Objective: Catheter-related discomfort often affects standard video-urodynamic study (VUDS) in children. This study aimed to explore the clinical value of free video uroflowmetry (FVU) in the assessment of neurogenic bladder in children. **Methodology**

A retrospective analysis was performed on the data of free video uroflowmetry in hospitalized children finally diagnosed with neurogenic bladder from January 2025 to September 2025. All underwent free uroflowmetry (FF), VUDS, and FVU. Uroflowmetric parameters (maximum flow rate (Qmax), average flow rate (Qave), voiding-time, voided-volume, post-void residual urine (PVR)) and imaging events (presence or absence of vesicoureteral reflux (VUR), detrusor-sphincter dyssynergia (DSD), and pseudo-residual urine) were compared among three groups.

Results: Eight children failed VUDS due to catheter-related difficulty voiding. FF and FVU showed comparable uroflowmetry parameters ($P > 0.05$), both significantly different from VUDS ($P < 0.05$). Imaging positive event rates were similar between FVU (88.57%) and VUDS (91.43%, $P > 0.05$).

Conclusion: FVU is non-catheterized and reflects natural voiding. It clearly visualizes bladder-urethral morphology and accurately detects DSD, pseudo-residual urine, and VUR. FVU is an effective complementary tool to VUDS and FF, especially suitable for bladder function evaluation in primary hospitals without pressure-flow study equipment.

Hyperbaric Oxygen Therapy in Glans Penile Circulatory Compromise: A Three-Case Report

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Introduction: Circulatory compromise of the glans penis in childhood is rare but may lead to significant cosmetic and functional sequelae. There is no established consensus regarding optimal management. We aimed to present three pediatric cases of traumatic and iatrogenic glans circulatory impairment in which hyperbaric oxygen therapy (HBOT) was incorporated into the treatment strategy.

Case 1: A 6-year-old boy presented 24 hours after circumcision with progressive discoloration of the glans penis. Examination revealed ecchymosis and decreased turgidity. Management included intravenous hydration, antibiotics, warm dressings, topical nitroglycerin, and five sessions of HBOT. Clinical findings improved, and he was discharged without complications.

Case 2: An 8-year-old boy developed ecchymosis of the glans 10 hours after penile plication surgery. Treatment consisted of hydration, antibiotics, warm saline dressings, and five sessions of HBOT. Perfusion improved, and the patient discharged uneventfully.

Case 3: A 13-year-old boy presented after bicycle trauma with partial glans laceration and complete urethral transection. Primary repair was performed. HBOT was initiated on postoperative day one, and 20 sessions were completed. He was discharged on postoperative day nine. During follow-up, cystoscopy and urethral dilatation were required.

Conclusion: Early recognition and timely use of HBOT may improve tissue viability and clinical outcomes.

Hypertension in Pheochromocytoma in Children

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Introduction: A rare cause of hypertension, adrenal pheochromocytoma in children is an unusual tumor, benign in the majority of cases, usually observed from the age of 5. It develops from the chromaffin cells of the adrenal medulla. Surgically curable in 90% of cases.

Objective: To discuss the paraclinical, therapeutic, and evolutionary data of this tumor.

Patients and methods: Retrospective study of the records of patients admitted for pheochromocytoma.

Results: 7 children (4 boys and 3 girls, mean age of 10 years). Persistent severe resistant hypertension was the revealing sign in 80% of our children. Measurement of 24-hour urinary catecholamines, performed in 90% of cases, showed significant levels, suggesting pheochromocytoma. Abdominopelvic CT scan revealed A unilateral adrenal localization was observed in 6 cases on the right and 1 case on the left. All patients received preoperative antihypertensive treatment. The adrenalectomy was performed via a transperitoneal abdominal approach, with all anesthetic precautions. The outcomes were favorable. With an average follow-up of 8 years, there was no recurrence.

Conclusion: Pheochromocytoma is a rare tumor; the diagnosis should be suspected in any hypertensive patient.



Impact of Early and Delayed Toilet Training on Voiding Dysfunction in Children: A Retrospective Study

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Objective: To evaluate how the timing of toilet training affects voiding dysfunction in children and to examine gender-related differences, presenting symptoms, and outcomes after parental education.

Materials and Methods: This retrospective study included 220 children assessed for urinary complaints between 2000 and 2026. Patients were categorized by toilet training age as early (<18 months), appropriate (18–36 months), or delayed (>36 months). Clinical presentation, urinary tract infections, and voiding patterns were reviewed. Diagnostic evaluation consisted of medical history, physical examination, ultrasonography, and uroflowmetry with post-void residual measurement. Outcomes after standard urotherapy and structured parental education were analyzed. A p value <0.05 was considered statistically significant.

Results: Voiding dysfunction was significantly more common in children who underwent toilet training either early or late than in those trained at the appropriate time ($p<0.05$). Girls were affected more often than boys ($p<0.05$). Overactive bladder was the most frequent diagnosis, and most children presented at 4–5 years of age. Early training was associated with dysfunctional voiding and withholding behaviors, whereas delayed training was linked to urgency, frequency, and urinary tract infections. Significant clinical improvement followed urotherapy and parental education ($p<0.05$).

Conclusion: Inappropriate toilet training timing increases the risk of voiding dysfunction, especially in girls, overall.

Indocyanine Green Injection via Retrograde Ureteral Intubation for Fluorescence Laparoscopic Treatment of Recurrent Ureteropelvic Junction Stenosis in Children

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Objective: To explore the advantages and application value of fluorescence laparoscopy with indocyanine green (ICG) injection via retrograde ureteral intubation in treating recurrent ureteropelvic junction stenosis.

Methods: A retrospective analysis was done on 11 recurrent ureteropelvic junction stenosis patients admitted to Xi'an Children's Hospital from May 2022 to Aug 2023. All underwent fluorescence laparoscopic pyeloplasty with ICG injection via retrograde ureteral intubation under general anesthesia. There were 10 males and 1 female, aged 1 - 12 years. ICG was injected via retrograde ureteral intubation and the ureter and renal pelvis were visualized by the laparoscopic system's fluorescence imaging function. Operation time, dissection time, intraoperative blood loss, postoperative complications, hospital - stay, and surgical efficacy were collected and analyzed.

Results: All 11 operations were successful, with no conversion to open surgery or intraoperative complications. The operation time was 69 - 151 minutes, the renal pelvic flap dissection time was 33 - 51 minutes, and the intraoperative blood loss was 5 - 10 ml. Hydronephrosis improved significantly in 10 cases and had no obvious improvement in 1 case.

Conclusion: The ICG fluorescence visualization imaging technology can guides surgical strategies and improves the safety and clinical efficacy of secondary operations.

Is it unusual, or is it an unrecognized complication following stented pyeloplasty?

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Purpose: We present two patients with recurrent obstruction after stented pyeloplasty who were managed with a novel strategy.

Materials and Methods: Patient 1, 11 years old, developed obstruction after nephrostent removal. A retrograde study 4 weeks after JJ-stent reinsertion revealed a stricture and a lesion. During redo laparoscopic pyeloplasty, inflammatory anastomotic polyps were excised, and a larger stent was placed. Due to recurrent thickening/polyps on ultrasound, he received prednisolone (40 mg/day for 4 weeks). Following stent removal, imaging and a MAG3 renogram confirmed normal drainage and preserved function. Patient 2, 7 years old, with symptomatic PUJO, had an uneventful laparoscopic pyeloplasty but developed obstruction hours after JJ-stent removal. Ultrasound showed severe hydronephrosis and anastomotic thickening. A larger JJ-stent was inserted alongside a 4-week prednisolone course (40 mg/day). Stent removal was asymptomatic, with ultrasound and a MAG3 renogram confirming resolved hydronephrosis and preserved function.

Results: Stents were removed asymptomatic. Both patients recovered well. Follow-up imaging and MAG3 renograms confirmed resolution of hydronephrosis, improved drainage, and preserved renal function.

Conclusions: Anastomotic inflammation is a unique complication causing obstructive symptoms post-pyeloplasty. Steroids combined with temporary stenting effectively treat this inflammatory response.

Laparoscopic Replacing an Extended Defect of The Distal Ureter by the Flap of The Roof of Bladder

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Replacement of extended defects of the distal ureter by Boari procedure has limitations due to the length of the flap and possible scarring in the anastomosis area. During the period 2020-2025, 2 children with a distal ureter defect (8-12 cm) were operated on. The children underwent reimplantation of the ureter, the "side-to-side" anastomosis was performed, connection the spatulated (2 cm) damaged ureter with a full-layered flap of the roof of the bladder. The incision was started from the lateral wall of the detrusor along the anterior and posterior surfaces. The flap of the bladder was be notched along the lateral surface, reducing its width and increasing the length to junction with the ureter without tension. The anastomosis was formed by a continuous Vicril 4/0 sutures on the ureteral JJ stent 8Ch. The postoperative period passed without complications. The follow up results were observed (6-30 months) reduction in the size of the pelvis and calyces and the ureter, absence of UTI, stable kidney function. The flap from the bottom of the bladder on a wide base makes it possible to replace a significant defect in the ureter without the of the blood supply to the flap and dysuria symptoms.



Laparoscopic Approach for Bladder Augmentation, Continent Vesicostomy and Neck Closure

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Aim: To present the experience of the Morozov Children's City Clinical Hospital in using laparoscopic approach for performing bladder augmentations, continent vesicostomies, and bladder neck closure.

Materials and Methods: Between 2019 and 2025, at the Morozov Children's City Clinical Hospital, 30 patients underwent bladder augmentations (10), continent cystostomies (31), and bladder neck closures (8) using a laparoscopic approach. Patients had various conditions: 21 patients had neurogenic bladder, 5 had urethral trauma, and 4 had microcystis due to other causes. Associated pathologies included vesicoureteral reflux (3), obstructive megaureter (1), and myelomeningocele (18).

Results: Laparoscopic appendicovesicostomy was performed in 24 patients, ileovesicostomy in 7. Simultaneous laparoscopically assisted bladder augmentation was performed in 10 patients, bladder neck closure - in 8 patients. Simultaneous ureteral reimplantation was performed in 4 patients. There were no intraoperative complications or conversions. Early postoperative complication - urinary leak (1). Continence was achieved in 93%. Long-term complications: urinary incontinence (2), recurrence of vesicoureteral reflux (1), augmented bladder perforation - 1, augmented bladder stone - 1, bladder neck recanalization - 1.

Conclusion: The laparoscopic approach allows for effective and minimally invasive simultaneous creation of continent vesicostomies, bladder augmentation, and bladder neck closure with ureteral reimplantation, with a low complication rate.

Laparoscopic Modification of Paquin's Ureteral Reimplantation. Advantages, Indications, Tips & Tricks

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To evaluate the effectiveness and to determine the advantages and indications of laparoscopic modification of Paquin's ureteral reimplantation.

Materials and Methods: Between 2017 and 2025, at the Morozov Children's City Clinical Hospital, 53 patients (68 reimplanted ureters) underwent laparoscopic modification of Paquin's ureteral reimplantation. Repeat Paquin's ureteral reimplantation was performed in 27 children. Results were compared with group of 51 patients (54 reimplanted ureters), who underwent laparoscopic transverse extravesical ureteral reimplantation. There were 19 repeat transverse extravesical ureteral reimplantation.

Results: The efficacy of primary laparoscopic modification of Paquin's ureteral reimplantation was 88% and did not differ significantly from that of the transverse technique ($p = 1.000$). The efficacy of repeat laparoscopic modification of Paquin's ureteral reimplantation (89%) was statistically significantly superior to that of repeat laparoscopic extravesical transverse reimplantation ($p = 0.030$). There were no statistically significant differences in the number of complications (Paquin/Transverse): macrohematuria (3/0), omental evisceration (2/1), urinary leak (0/0), pyelonephritis (2/2), ureteral stricture (0/0).

Conclusion: The laparoscopic modification of Paquin's ureteral reimplantation is an effective treatment modality for children with vesicoureteral reflux and primary obstructive megaureter. The laparoscopic modification of Paquin's ureteral reimplantation is the method of choice for repeat surgeries on the ureterovesical junction.

Management of Circumcised proximal hypospadias

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Aim: The management of circumcised proximal hypospadias is not standardized. The surgical technics available are limited with the lack of preputial foreskin. The goal of this study is to report our experience managing circumcised proximal hypospadias, the different technics used and our recommended procedures allowing better results and fewer complications.

Materials and Methods: We report a single surgeon series of 25 patients with circumcised proximal hypospadias over a period of 14 years. The main technic used is the two stage buccal mucosa graft technic with the use of a tunica vaginalis coverage.

Results: Our patients were aged between 1-16 (7,7) years, most of them were circumcised traditionally by non-medical professionals. 23 of our patients received a two stages buccal mucosa technic using the lower lip buccal mucosa. 2 patients received a one stage urethroplasty using the preputial remains (incomplete circumcision). Our outcomes were satisfactory with few cases of fistula and distal dehiscence that were managed within one year post operatively.

Conclusion: We recommend the staged buccal mucosa graft technic to repair these complicated cases. It is allowing better outcomes for the patients with lower risks of complications.

Management of Fistulas Complicating Distal Hypospadias Surgery

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Urethrocuteaneous fistula is a frequent postoperative complication of distal hypospadias repair. The primary objective of our study is to better characterize the profile of these fistulas in our setting, identify associated risk factors, analyze surgical management modalities, and evaluate outcomes in order to optimize patient care. This retrospective, descriptive, and analytical study was conducted between 2018 and 2024 and included 30 children managed for urethrocuteaneous fistula complicating distal hypospadias repair. The results enabled us to establish a clear profile of the fistulas managed in our series: a mean age at repair of 6.3 years, a predominance of fistulas located at the balanopreputial groove, a clinical presentation dominated by urinary leakage, and a majority use of the fistulorrhaphy technique. The overall success rate was satisfactory, with definitive closure achieved in nearly all patients, despite recurrences that occasionally required surgical revision and more complex coverage techniques. Fistula location, fistula size, quality of urethral coverage, timing of surgical revision, and the need for an individualized approach accounting for the scarring background are key prognostic factors in the therapeutic management of fistulas following distal hypospadias surgery



Outcomes of Open Lich–Gregoir Ureteroneocystostomy in Complex Pediatric Vesicoureteral Reflux

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Aim: To evaluate clinical, radiologic and voiding outcomes after open Lich–Gregoir ureteroneocystostomy in a predominantly complex pediatric vesicoureteral reflux cohort.

Material and Method: We retrospectively reviewed 38 children undergoing open Lich–Gregoir ureteroneocystostomy. Patient-level variables included underlying disease, clean intermittent catheterization, recurrent urinary tract infection, new renal scar and follow-up. Renal-unit outcomes included reflux grade and pre/postoperative distal ureteral and renal pelvic anteroposterior diameters. DMSA function was analyzed in unilateral cases. Postoperative urinary retention was considered assessable only in non-CIC/evaluable voiding patients.

Results: Median age was 6 years and median follow-up was 3 years. Ten patients were bilateral, yielding 48 renal units. Meningomyelocele was present in 25 patients, posterior urethral valve in 5 and bladder exstrophy in 1; 30/38 patients were CIC-dependent. Grade IV–V reflux involved 42/48 units. Reflux resolved in all units without recurrence. Recurrent urinary tract infection decreased from 35/38 to 8/38 patients ($p<0.0001$), and no new scar was observed. Median ureteral diameter decreased from 11.0 to 9.2 ($p=0.0001$), and pelvic diameter from 16.0 to 12.0 ($p<0.0001$). No postoperative retention occurred in evaluable unilateral non-CIC patients.

Conclusion: Open Lich–Gregoir ureteroneocystostomy achieved durable reflux correction and reduced infectious/radiologic burden in complex high-grade pediatric reflux.

Outcomes of Transvesical Reconstruction for Ectopic Ureterocele: A Single-Center Experience with 15 Cases.

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Aim/Purpose: To evaluate the long-term outcomes of transvesical reconstruction for ectopic ureterocele.

Patients and Methods: Among 32 patients with ectopic ureterocele treated at our institution, 15 (46.9%) underwent a transvesical approach and were retrospectively reviewed. There were 3 boys and 12 girls. Lesions were left-sided in 6 patients and right-sided in 9. Four patients had a single-system ureterocele and 11 had a duplicated system. The median age at surgery was 3 years 8 months (range, 6 months–11 years 11 months). The mean follow-up period was 8 years 8 months (range, 1 year 9 months–17 years 9 months).

Results: Additional bladder neck reconstruction was required in one girl with a single-system ureterocele. Postoperative complications occurred in 3 patients (20.0%). Persistent urinary incontinence developed in 2 girls with a single-system ureterocele (13.3%). Complete excision of the ureterocele was not necessary to achieve satisfactory outcomes. In duplicated systems, unification of the ureters was effective, suggesting the usefulness of ipsilateral ureteroureterostomy.

Conclusion: Transvesical reconstruction provided acceptable long-term outcomes for ectopic ureterocele. Limited ureterocele excision appears sufficient, and ureteral unification may be beneficial in duplicated systems. Persistent urinary incontinence remains a concern, particularly in girls with single-system ureteroceles.

Pelvic Floor Rehabilitation in a Patient with Epidermolysis Bullosa and Refractory Lower Urinary Tract Dysfunction: A Case Report

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Introduction: Lower urinary tract dysfunction (LUTD) is a common urological problem characterized by urinary incontinence, incomplete bladder emptying, urgency, and recurrent urinary tract infections (UTIs), significantly affecting quality of life. In children, LUTD is usually managed with conservative approaches such as urotherapy, pharmacological treatment, and pelvic floor rehabilitation. However, rare comorbidities may complicate management. We present outcomes of a multidisciplinary, individualized treatment in a patient with Epidermolysis Bullosa (EB) and refractory LUTD.

Results: A 16-year-old female with EB presented with daytime and nighttime incontinence and recurrent UTIs since age 9. She reported frequent UTIs, increased urinary frequency, and intermittent incontinence. Previous treatments included anticholinergics, double voiding, and prophylactic antibiotics with partial benefit. Physical examination revealed EB-related scars only. Uroflowmetry showed staccato voiding with residual urine; alpha-blocker therapy was ineffective and discontinued. Clean intermittent catheterization was avoided due to EB. The patient underwent pelvic floor rehabilitation including urotherapy, diaphragmatic breathing, and pelvic floor training over 8 weeks (5 sessions). Incontinence episodes decreased markedly (77 to 13/month), with improved IBSS and PINQ scores.

Conclusion: Pelvic floor rehabilitation may be effective in refractory LUTD when invasive approaches are limited. Multidisciplinary, individualized strategies are essential in complex cases.

Performing the Mainz-Pouch I procedure in children with bladder exstrophy

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Introduction: Urinary incontinence is a characteristic complication and manifestation of bladder exstrophy and cloacal ectrophy. To increase bladder capacity, which is common in patients with this condition, expansion cystoplasty is performed using a segment of small or large intestine on a mesenteric pedicle, or an artificial bladder is created with a continent catheterization stoma.

Objective: To evaluate the results of heterotopic continental urinary diversion in children with bladder exstrophy.

Materials and Methods: From 2018 to the present, six patients with bladder exstrophy and cloaca have undergone surgeries at the Filatov Children's City Clinical Hospital, three of which involved creating a heterotopic bladder using the Mainz-Pouch I technique.

Results: Follow-up period: 7 years. Currently, three patients are self-catheterizing their bladders, with free catheterization. The bladder capacity is 300-500 ml, and the children are dry. One child with bladder exstrophy experienced obstruction of the holding stoma in the early postoperative period, which required surgical treatment with a good outcome. The upper urinary tract remains intact.

Conclusions: Heterotopic continental urinary diversion is the procedure of choice in children with microcystis and urinary incontinence, after other methods of correcting bladder and cloacal exstrophy. The observed complication is consistent with data from the international literature.

Post-Circumcision Urethrocuteaneous Fistulas in Children

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We report a 10-year retrospective series (2013–2023) of 30 children with post-circumcision urethrocuteaneous fistula. This study aims to analyze the clinical profile, surgical management, and outcomes of post-circumcision urethrocuteaneous fistulas in children, in order to identify prognostic factors and optimize therapeutic strategies. The mean age was 4 years. Circumcision had been performed by a traditional practitioner in 93% of cases, at ages ranging from one week to 6 years. Fistulas accounted for 17% of all circumcision complications, with a mean diagnostic delay of 1.7 years. Urinary leakage was the universal presenting complaint, accompanied by dysuria (n=5), double urinary stream (n=4), local skin irritation (n=4), and acute urinary retention (n=3). Most fistulas were subcoronal (n=28), moderate to large in size (n=28), with associated anomalies in 9 cases. Surgical repair included urethrocuteaneous layered repair (n=16), Duplay urethroplasty (n=10), and other techniques (n=4), with vascularized flap coverage in 28 cases. The success rate was 80%, with a 20% recurrence rate. Optimal outcomes depend on careful assessment of fistula size, tissue quality, and associated anomalies. Above all, prevention through circumcision by qualified practitioners with adequate knowledge of pediatric penile anatomy remains the ultimate goal.

Preclinical Efficacy Evaluation and Potency Marker Validation of Multifunctional, Primed Mesenchymal Stem Cells Using an Obstructive Nephropathy Animal Model

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Introduction: We evaluated the therapeutic efficacy of multifunctional, primed mesenchymal stem cells (MP-MSCs) in an obstructive nephropathy model and investigated biomarkers associated with treatment response.

Materials and Methods: Unilateral ureteral obstruction (UUO) was induced in Sprague-Dawley rats using a stainless-steel wire ligation model. Sham-operated rats served as non-obstructed controls. Two weeks after UUO induction, each rats received intravenous PBS, Naïve-MSCs, or MP-MSCs (1×10^6 cells). One week later, kidneys, blood, and 24-hour urine samples were collected. Histological injury and fibrosis were assessed using H&E, Masson's Trichrome, and Sirius Red staining. Urinary KIM-1 and NGAL and serum creatinine and BUN were analyzed.

Results: MP-MSC treatment significantly reduced relative kidney weight and attenuated renal hypertrophy compared with UUO controls. Histological analyses demonstrated preservation of glomerular structure and marked reduction of collagen deposition compared with both UUO and Naïve-MSC groups. Urinary KIM-1 and NGAL levels were significantly decreased following MP-MSC treatment, suggesting improved tubular protection. Serum creatinine and BUN remained unchanged among groups.

Conclusions: MP-MSCs effectively attenuated renal fibrosis and preserved renal architecture in a UUO model, demonstrating superior efficacy to Naïve-MSCs. These findings suggest that MP-MSC have superior therapeutic potential and may serve as a promising cell-based therapy for obstructive nephropathy.

Reflux Vésico-Urétéral Primitif Les Aspects Évolutifs

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Objective: To determine the hospital incidence and risk factors for kidney injury in pediatric patients hospitalized for primary vesicoureteral reflux (VUR).

Materials and Methods: A descriptive retrospective study analyzed 162 pediatric records of primary VUR managed at the Blida University Hospital MHY Unit. Secondary VUR cases were excluded.

Results: VUR accounted for 8% of hospitalized CAKUT cases. The median management age was 3.5 years (range: 2 months–10 years), with a 44.4% female predominance (sex ratio: 1.2). VUR was discovered via urinary tract infection (60%), antenatal screening (27%), or incidentally (13%). Upon admission, 10 children presented with renal failure and 2 with hypertension. VUR was bilateral in 113% of cases, with high grades (IV–V) dominating at 40%. Anatomically, 135 patients had simple urinary tracts and 17 had duplicity. DMSA scintigraphy revealed 70 cases of renal scars, 100 with preserved function (>40%), 25 hypofixing kidneys (10%–20%), 12 cases <10%, and 10 non-functional kidneys. Interventions included: Cohen intravesical reimplantation (96 cases), endoscopic injection (30), nephrectomy (20), partial nephrectomy (6), and emergency nephrostomy (6). Six non-operated patients were followed for renal failure.

Conclusion: Early detection and tailored management of VUR are vital to prevent reflux nephropathy and end-stage renal failure.

Risk Factors for Surgical Intervention Following Discontinuation of Continuous Antibiotic Prophylaxis in Children with Vesicoureteral Reflux

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Purpose: To identify clinical and video urodynamic study (VUDS) factors associated with surgical intervention after discontinuation of continuous antibiotic prophylaxis (CAP) in children with vesicoureteral reflux (VUR).

Methods: We retrospectively reviewed 141 children with VUR who underwent VUDS before CAP discontinuation between 2006 and 2025. The primary outcome was surgical intervention due to febrile urinary tract infection (UTI) following CAP cessation. Clinical characteristics, changes in VUR grade, and VUDS findings were compared between surgical and non-surgical groups.

Results: Twenty-four patients (17.0%) underwent surgery following febrile urinary tract infection after CAP cessation. Age at diagnosis, age at VUDS, and initial VUR grade were comparable between groups. However, VUR grade at VUDS was significantly higher in the surgical group ($p=0.005$). VUR aggravation was associated with increased likelihood of surgery (31.6% vs. 9.7%; OR 4.29, 95% CI 1.84–10.01; $p<0.001$). Among boys, maximum detrusor pressure was higher in the surgical group ($p=0.029$). Bulbous urethral ring was more prevalent in surgically treated patients (33.3% vs. 9.4%, $p=0.002$).

Conclusions: VUR aggravation after CAP discontinuation was associated with subsequent surgical intervention. Persistent reflux, elevated detrusor pressure and bulbous urethral ring in boys identify patients at increased risk for surgical intervention and require closer surveillance after CAP cessation.

STAC: as a Salvage Procedure for Persistent Complications After Childhood Hypospadias Repairs: Two Adolescent Cases

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Aim/Purpose: To demonstrate that STAC (STraighten And Close) may resolve complications in adolescents with ventral penile curvature or neourethral stricture following childhood hypospadias repairs.

Patients and Methods: Two patients, aged 13 and 14 years, who had several hypospadias surgeries in childhood, presented with persistent ventral penile curvature and urethral stricture, respectively. Distal urethral stricture resulted in proximal urethral diverticulum associated with urinary dribbling in one patient and severe ventral curvature in another patient. One patient underwent all three stages of STAC (STAC 1/2/3), while the other underwent only the first stage (STAC 1) and is awaiting for the other procedures.

Results: The patient who completed all three stages achieved successful correction, with no complaints at 6-month follow-up. The second patient is satisfied with having a straight penile shaft and is currently awaiting the second-stage operation, which is planned during the school holiday period.

Conclusion: STAC staged repair may be an effective salvage procedure for adolescents who develop complications after childhood hypospadias repairs.

Tamsulosin Effect on Stent Size in Pediatric Pyeloplasty

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Purpose: To evaluate whether preoperative tamsulosin administration increases achievable ureteral stent size and facilitates intraoperative ureteral access during pediatric laparoscopic pyeloplasty.

Methods: Beginning July 2024, tamsulosin was routinely administered for 5 days preoperatively at Severance Hospital. Of 76 patients in the prospective cohort, 43 completed the full 5-day course. Within-cohort comparison revealed baseline imbalances in age, weight, height, and laterality. Therefore, 1:1 PSM was performed using 253 eligible patients identified from institutional EMR records of all patients who underwent laparoscopic pyeloplasty, including the cohort group. Exact matching was applied for sex, laterality, and age category.

Results: Among 253 eligible patients, 43 tamsulosin-group patients were matched into 34 pairs (all SMD <0.05). The remaining 9 patients were unmatched due to exact matching constraints. In patients younger than 24 months, tamsulosin significantly increased stent size (Fr 4.00±0.71 vs. 3.38±0.51; Wilcoxon p=0.015) and rate of >3 Fr insertion (76.9% vs. 38.5%; McNemar p=0.025). No significant difference was observed in patients aged ≥24 months.

Conclusions: Preoperative tamsulosin for 5 days increased achievable stent caliber in children younger than 24 months. As ureteral stenting is technically challenging in infants, tamsulosin may serve as a simple adjunct to improve intraoperative ureteral access and procedural efficiency.

Transurethral Removal of Dislocated Vesicoamniotic Shunts in a Newborn with Acute Renal Failure

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Background: Vesicoamniotic shunting is used for prenatal management of infravesical obstruction; however, shunt migration remains a serious complication requiring postnatal intervention.

Methods: We report a neonatal case of a premature male (33 weeks' gestation) with prenatal infravesical obstruction and anhydramnios who underwent two VAS placements complicated by migration. Clinical data, imaging findings, endoscopic management, and outcomes were analyzed.

Results: Postnatally, respiratory support and bladder catheterization were required due to anuria. Imaging demonstrated dual shunt migration, including intravesical displacement and subhepatic urine leakage. Due to acute kidney injury, renal replacement therapy was indicated, and preservation of the peritoneal cavity was prioritized. Urethrocystoscopy identified a type I posterior urethral valve. Both shunts were successfully removed transurethrally using endoscopic forceps. One shunt's distal coil was found to perforate the bladder wall, explaining antenatal intraperitoneal migration. No intra- or postoperative complications were observed. Peritoneal dialysis was subsequently initiated.

Conclusions: Transurethral endoscopic removal of migrated vesicoamniotic shunts is a safe and effective minimally invasive option, allowing avoidance of open surgery and preservation of peritoneal access for dialysis in neonates with acute kidney injury.

Treatment of Hypospadias Using Combined G-Inlay and Onlay preputial graft Techniques: A Single-Center Retrospective Study

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Objective: To investigate postoperative complications and clinical outcomes of combined Penile Glans-inlay (G-Inlay) and Onlay preputial graft urethroplasty for hypospadias repair, and to summarize key surgical points.

Methods: A retrospective analysis was conducted on 48 hypospadias cases treated at our hospital from February 2022 to December 2024, with a median age at surgery of 16 months. All procedures were performed by the same surgeon. Clinical data, postoperative complications, maximum urinary flow rate (Qmax), and HOSE scores were analyzed to evaluate outcomes.

Results: Among the 48 primary hypospadias cases, 13 presented with distal penile type, 20 with mid-penile type, 9 with proximal penile type, and 6 with penoscrotal junction type. All surgeries were completed in a single surgery and followed up for 12–36 months. Postoperative complications: 3 cases of urethral fistula, 1 case of urethral stricture, no penile dehiscence. At 3 months postoperatively, the mean Qmax was 12±1.5 mL/s, and the mean HOSE score was 14.7(14.1±1.1) points.

Conclusion: The Penile Glans-inlay (G-Inlay) and Onlay preputial graft urethroplasty technique for hypospadias offers high success rates, few complications, satisfactory cosmetic outcomes, and achieves normal urethral opening with unobstructed voiding.



Ureteral Diverticulum - Rare Case in Pediatric Urological Practice

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Aim: To evaluate the diagnostic and treatment features of ureteral diverticula in children through literature review and clinical case analysis.

Patients / Methods: A review of the literature on congenital ureteral diverticula and blind-ending bifid ureters in children was performed. Two pediatric patients with ureteral diverticula complicated by urolithiasis and urinary tract obstruction were retrospectively analyzed. Diagnostic evaluation included ultrasonography, contrast-enhanced CT, ureteroscopy, and laboratory tests. Both patients underwent endoscopic treatment; one had surgical reconstruction with histological examination of the resected ureteral tissue.

Results: Both patients had diverticula associated with urinary stones and impaired urinary drainage. One had a 3 cm blind-ending duplicated ureter containing two stones; the other had a 7 cm accessory blind-ending ureteral branch with multiple stones in juxtavesical ureter. Symptoms included flank pain, urinary tract infections, hematuria, and urinary tract dilation (ureteropyelocalicoectasia). Endoscopic treatment using ureteral stenting and laser lithotripsy successfully relieved obstruction and preserved kidney function. Histology revealed an acquired diverticulum lacking the inner muscular layer.

Conclusion: Ureteral diverticula in children are rare anomalies frequently complicated by urolithiasis and obstruction. CT imaging combined with ureteroscopy provides effective diagnosis. Staged minimally invasive endoscopic treatment efficiently relieves obstruction and preserves renal function.

Ureteral Stones Masked by Gallstone Disease in Obese Adolescents: Diagnostic Challenges and Management Strategies

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Objective: Rising childhood obesity increases the incidence of both gallstones and urinary stones through shared metabolic pathways. This study aims to highlight diagnostic pitfalls and management strategies in obese adolescents whose ureteral stones were initially masked by symptomatic gallstone disease.

Materials and Methods: We retrospectively reviewed three obese adolescents (BMI >95th percentile) managed between February 2023 and February 2026. These patients presented with suspected acute abdomen and gallstones but were subsequently found to have concurrent obstructive ureteral calculi. Clinical presentations, imaging, and surgical sequences were analyzed.

Results: The mean age was 15 years. All patients presented with right upper quadrant and flank pain. In one case, nephrectomy was initially planned elsewhere due to a presumed nonfunctioning kidney; however, specialized ultrasonography identified distal ureteral stones. Following laparoscopic cholecystectomy, ureteroscopic laser lithotripsy successfully relieved the obstruction, and the kidney was salvaged. In the other two patients, low-dose CT urography confirmed obstructive stones. Analysis revealed calcium oxalate in all cases, with no postoperative complications reported.

Conclusion: In obese adolescents with gallstones, synchronous ureteral stones must be excluded. Hydronephrosis always warrants detailed ureteral imaging, and lithotripsy should be prioritized to preserve renal function before considering nephrectomy.

Urethral Duplication in Male Children: Our 15 Years Experience

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Relevance of the Problem: Urethral duplication is a rare congenital anomaly with an incidence of approximately 1 in 5,000 live births. It poses significant challenges in diagnosis and management, often leading to urinary tract infections and complications if left untreated. Awareness of this condition is critical for early intervention.

Materials and Methods: We conducted a retrospective analysis of 25 male patients diagnosed with urethral duplication at our center over 15 years. Diagnostic imaging included ultrasound and voiding cystourethrograms (VCUG), urethrography. Surgical management strategies were tailored based on the type of duplication and associated anomalies.

Results: Surgical intervention was performed in 20 patients, with a success rate of 85%. Complications included stricture formation in two cases and recurrent urinary tract infections in three. Follow-up ranged from 6 months to 5 years, revealing satisfactory urinary function in most patients.

Conclusions: Urethral duplication requires a multidisciplinary approach for effective management. Early diagnosis and individualized surgical techniques can significantly improve outcomes and quality of life for affected children. Further research is needed to optimize treatment protocols and long-term follow-up strategies.

Urethral mucosal prolapse in young girls (About five cases)

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Introduction: Urethral prolapse is the circumferential eversion of the epithelium of the congested urethral mucosa through the urinary meatus. It is a benign and uncommon pathology often seen in prepubescent girls. Genital bleeding, most often the first sign, is a source of concern for parents.

Objective: To report the diagnostic and therapeutic aspects of urethral prolapse with a review of the literature.

Materials and Methods: This involved five girls aged 4, 6, 8, and 9 years, who presented to the emergency department for dysuria in the first case and genital bleeding in the other three cases. Physical examination revealed a circumferential, pseudo-tumoral swelling centered around the catheterizable urethral lumen, which bled readily on touch. A surgical excision of the prolapsed mucosa was performed in all our patients with sutures. muco-mucous membranes.

Results: The evolution was favorable; all the girls were successfully cured without any complications or recurrence.

Conclusion: Urethral prolapse is a rare pathology still poorly understood and continues to pose diagnostic problems with other causes of genital bleeding and vulvar mass in girls. Its diagnosis is clinical. Surgical excision constitutes the radical treatment for urethral prolapse and provides good results.



Urolithiasis in Glucose Transporter Type 1 Deficiency Syndrome

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Introduction: Glucose transporter type 1 deficiency syndrome (Glut1 DS) impairs cerebral glucose transport. The standard treatment, a ketogenic diet, predisposes patients to renal stone formation. This case details the management of urolithiasis in a paediatric Glut1 DS patient.

Patient and Methods: A 12-year-old boy with Glut1 DS presented with residual urolithiasis following an external Mini-Percutaneous Nephrolithotomy (Mini-PCNL). Evaluation, including labs and a low-dose KUB CT, identified a 1.5-cm radiopaque middle calyx stone. Arriving pre-stented, he continued his ketogenic diet with strict perioperative dextrose avoidance. We successfully performed left flexible ureteroscopy and laser lithotripsy (7.5 Fr scope) for complete stone dusting. Recovery was uneventful; the double-J stent was removed after two weeks.

Results: The 45-minute procedure utilised a thulium laser. Analysis confirmed a calcium oxalate dihydrate stone. At the one-month follow-up, the patient remained asymptomatic with a stone-free ultrasound. Preventative management included enhanced hydration and potassium citrate therapy.

Conclusion: This case demonstrates successful management of urolithiasis in a paediatric Glut1 DS patient on a ketogenic diet. Strict perioperative avoidance of dextrose, proactive hydration, and targeted medical prophylaxis are critical to minimising stone recurrence.

Zinner Syndrome: A Case of Right Renal Agenesis Associated with Seminal Vesicle Ectasia

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Introduction: Zinner syndrome is a rare congenital anomaly characterized by unilateral renal agenesis, ipsilateral seminal vesicle cyst/ectasia, and ejaculatory duct obstruction. Most cases are asymptomatic, though infertility, lower urinary tract symptoms, or pelvic pain may occur, classically in the third to fourth decades. We report a pediatric case incidentally identified during follow-up for solitary kidney.

Case: A 17-year-old male had been diagnosed with a solitary kidney at age seven and followed by nephrology uneventfully. Routine ultrasonography revealed a posterior bladder lesion prompting urological referral. MRI demonstrated bilateral seminal vesicle ectasia as multiple cystic structures posterior to the bladder, establishing the diagnosis. Spermiogram showed reduced sperm count, motility, and morphology, suggesting ejaculatory duct obstruction with secondary seminal vesicle dilatation. Following preoperative sperm cryopreservation, cystoscopy and transurethral resection of the ejaculatory ducts were performed. Intraoperative drainage of retained ejaculate was observed. Postoperative spermiogram demonstrated marked improvement in semen volume, concentration, total sperm count, and motility.

Conclusion: Seminal vesicle pathologies should be carefully evaluated in males followed for solitary kidney. Zinner syndrome should be considered when posterior cystic bladder lesions are identified on MRI in children. Early diagnosis and timely surgical intervention are essential for fertility preservation.



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