



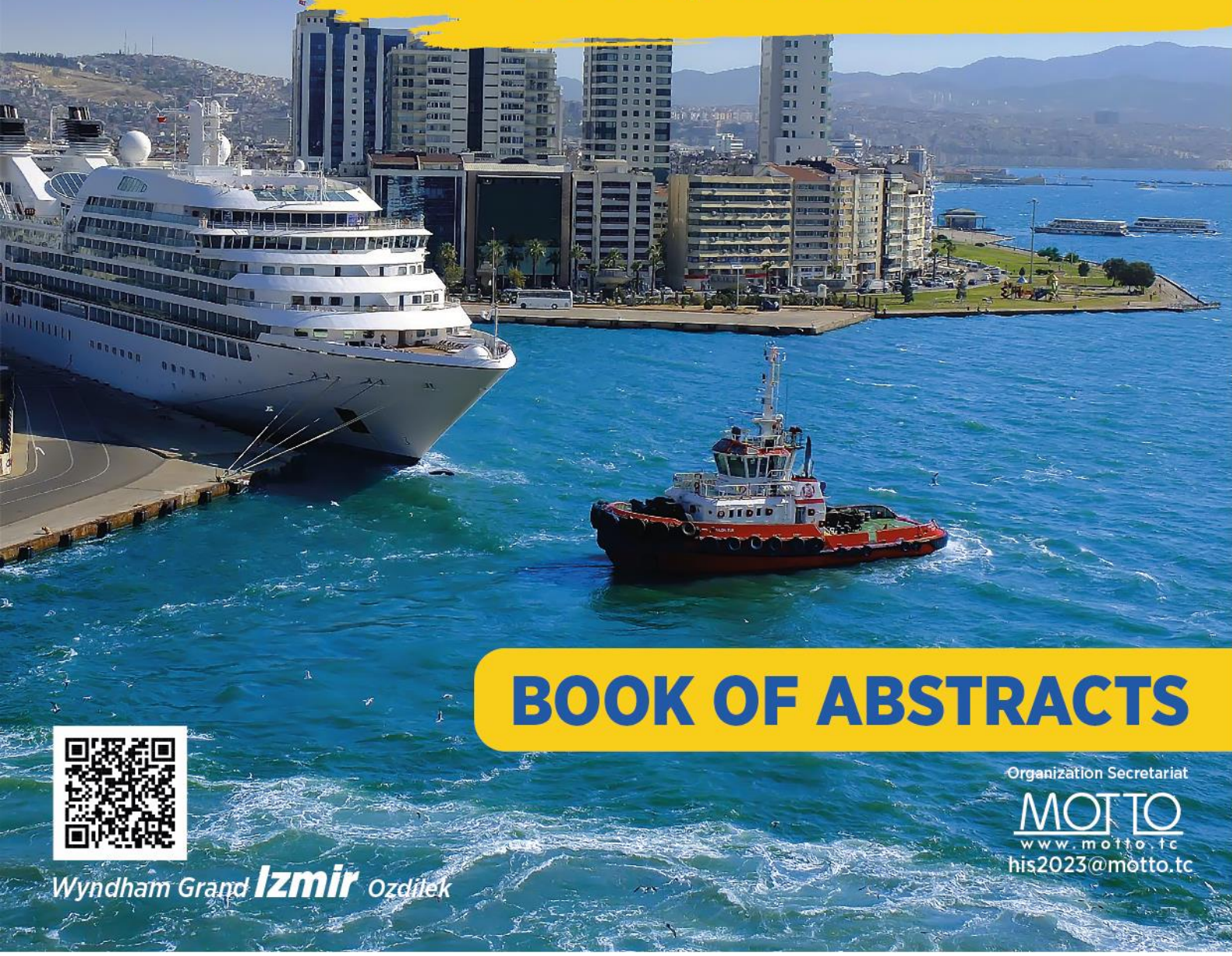
HIS
IZMIR 2023
27-30 September



5th World Congress of the Hypospadias International Society (HIS)

www.hisizmir2023.com

27-30 September 2023



BOOK OF ABSTRACTS



Wyndham Grand **Izmir** Ozdilek

Organization Secretariat

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“5th World Congress of the Hypospadias International Society”

Dear colleague

In numerology, the number 5 symbolizes freedom, curiosity, and change, – also a desire to have adventures and explore new possibilities.

Come and join us for the 5th World Congress of the Hypospadias International Society which will be held in Izmir, Türkiye between 27-30 September, 2023.

Meet the experts, explore the topics in-depth, follow live-surgery while you feel the gentle breeze of Meltem in a city with pristine beaches, great cuisine, vineyards, and a splendid history.

Izmir, the third largest city in Türkiye, is the first Cittaslow metropolis, and the winner of the 2022 Europe Prize- awarded by the European Council for promoting the European ideal; human rights and democracy.

See you in Izmir in September 2023 ...

İbrahim Ulman

Local Host

President-elect, HIS

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27 September 2023, Wednesday		
11:00 - 19:00	Registration (Congress Hotel)	
09:00 - 17:00	Pre-Congress Workshop: Urethral repair technics. Training on fresh animal cadavers Course Venue: EGEHAYMER - Laboratory Animals Practice and Research Center	
17:30-18:00	Opening Ceremony	
18:00 - 18:30	Plenary lecture, Father and Son: Dionysos and Priapos <i>Fercan Rubin Öñiz</i>	
19:00 - 21:00	Welcome Reception (Night Cruise on Izmir Bay with Historical Bergama Ship) (Dress Code: Smart Casual)	
21.30 - 22.30	Executive Board Meeting	
28 September 2023, Thursday		
Session 1 08:30 - 09:25	HIS Research Committee Panel	Chairs: <i>Nicolas Kalfa, Sibel Tiryaki</i>
08:30 - 08:45	Paving the way for Hypospadias Research I: Preclinical Animal Studies. <i>Tariq Abbas</i>	
08:45 - 09:00	Paving the way for Hypospadias Research II: Key steps in a robust clinical systematic review. <i>Pınar Okyay</i>	
09:00 - 09:15	Paving the way for Hypospadias Research III: Current status of systematic reviews in Hypospadias literature. <i>Mohamed Fawzy</i>	
09:15 - 09:25	Discussion	
Session 2 09:25 - 10:00		Chairs: <i>Mélise Keays, Ünal Zorludemir</i>

09:25 - 09:40	Genetic susceptibility to the environment and its relevance to Hypospadias and cancer incidence worldwide. <i>Nicolas Kalfa</i>	
09:40 - 09:50	Engineering elastic biomaterials for the urethra: The importance of tensile properties in tissue engineering and reconstruction. <i>Renea Sturm</i>	
09:50 - 10:00	Discussion	
10:00 - 10:30	Coffee Break	
Session 3 10:30 - 11:40	How do we improve our technique in Hypospadias repair	Chairs: Warren Snodgrass, Yunus Söylet
10:30 - 10:45	Setting the Goal Right: No Compromise from the Normal Penis. <i>İbrahim Ulman</i>	
10:45 - 11:00	Intricacies of Hypospadiology <i>Obaid Obaidullah</i>	
11:00 - 11:15	Using microscope for Hypospadias surgery. <i>Ursula Tonnhofer</i>	
11:15 - 11:25	Discussion	
11:25 - 11:40	The International Hypospadias Study-Day: Experience and Insight Gleaned Over 25 Years. <i>Şeref Etker</i>	
Session 4 11:40 - 12:30	<u>Free Presentations</u>	Chairs: Kerem Özel, Asaad Matar
12:30 - 13:30	Lunch	
12:45	<u>Poster Sessions 1</u> Chairs: Can Taneli, Bilge Türedi Sezer	<u>Poster Sessions 2</u> Chairs: Mustafa Melikoğlu, Ahsen Karagözlü Akgül

Session 5 13:30 - 13:50	John Duckett Lecture-Hypospadias: The unknown unknowns! <i>Ahmed Hadidi</i>	Introduction: <i>Graham Smith</i>
Session 6 13:50 - 14:30	Tips and Tricks	Chairs: <i>Mark Zaontz, Ali Avanoğlu</i>
13.50-14.00	Simple Anatomic Closure (SAC) Technique in Selected Distal Hypospadias Cases <i>Haluk Emir</i>	
14.00-14.10	Approaches to Correct Chordee: Corporotomy, Dorsal Plication and Taping <i>Cynthia Sze-Ya Ting</i>	
14.10-14.20	Introducing a Novel Dressing Technique Designed to Stabilize the Penis in a Stretched Position while Permitting Early Baths and Visibility <i>Ibrahim Ulman</i>	
14.20-14.30	A Simple Trick to Prevent the Dressing from Stool Contamination <i>Abdurrahman Önen</i>	
14:30 - 15:00	Coffee Break	
Session 7 15:00 - 15:45	Chordee Curvature	Chairs: <i>Antonio Macedo, Nizamettin Kılıç</i>
15:00 - 15:15	Unaided visual assessment of ventral curvature during Hypospadias repair. <i>VVS Chandrasekharam</i>	
15:15 - 15:30	Why STAC is better than STAG. <i>Warren Snodgrass</i>	
15:30 - 15:45	Discussion	
Session 8 15:45 - 17:00		Chairs: <i>Fabio Bartoli, Mustafa Olguner</i>
15:45 - 16:45	<u>Free Presentations</u>	

16:45-17:00	Graft stretching with Vit E for 2-stage repair of penoscrotal Hypospadias with severe curvature. <i>Luis Braga</i>	
29 September 2023, Friday		
Session 9 08:30 - 10:00	Distal Hypospadias	Chairs: Murat Alkan, VVS Chandrasekharam
08:30 - 08:45	Cross-pollination in surgical skills training <i>Alp Numanoğlu</i>	
08:45 - 09:00	Lessons learned after 5 years of GUD. <i>Antonio Macedo</i>	
09:00 - 09:15	Glansplasty and cosmetic outcome for distal Hypospadias. <i>Luis Braga</i>	
09:15 - 09:30	Tips to have a slit-like Meatus. <i>Ahmed Hadidi</i>	
09:30 - 09:45	Discussion	
09:45 - 10:00	What about transition into adulthood in Hypospadias? Ghent University Hospital insights. <i>Anne François Spinoit</i>	
10:00 - 10:30	Coffee Break	
10:30-10:45	New findings from the American Urological Association Quality Registry: Adults with Hypospadias <i>Mélise Keays</i>	Chairs: Christopher Long, Ursula Tonnhofer
Session 10 10:45 - 11:40	Proximal Hypospadias 1	
10:45 - 11:00	Consenting and planning operations for boys with complex Hypospadias. <i>Graham Smith</i>	
11:00 - 11:15	Pretty good is better than perfect. <i>Mark Zaontz</i>	

11:15 - 11:25	Discussion	
11:25 - 11:40	Penis and Sex According to Aristoteles. <i>Ali Avanoğlu</i>	
Session 11 11:40 - 12:30	<u>Free Presentations</u>	Chairs: Adham El Saied, Tarkan Soygür
12:30 - 13:30	Lunch	
12:45	<u>Poster Sessions 3</u> Chairs: Selami Sözübir, Tariq Abbas	<u>Poster Sessions 4</u> Chairs: Mircia Ardalean, Yaşar Issı
13:00 - 13:30	HIS General Assembly	
Session 12 13:30 - 14:30	Proximal Hypospadias 2	Chairs: Obaid Obaidullah, Halil Tuğtepe
13:30 - 13:45	Selection, preparation and aftercare - contributors to a successful graft in two stage Hypospadias repair. <i>Peter Cuckow</i>	
13:45 - 14:00	Resurfacing the penis following complex Hypospadias repair. <i>Moneer Hanna</i>	
14:00 - 14:15	Mansoura modification of Koyanagi technique for repair of severe Hypospadias. <i>Adham El Saied</i>	
14:15 - 14:30	Discussion	
14:30 - 15:00	Coffee Break	
Session 13 15:00 - 15:55	Complications	Chairs: İbrahim Ulman, Ali Tekin
15:00 - 15:15	Lessons learned from Hypospadias complications. <i>Mark Zaontz</i>	

15:15 - 15:30	Changing concepts in reoperative complicated Hypospadias. <i>Yunus Söylet</i>	
15:30 - 15:40	Discussion	
15:40 - 15:55	Inventors and Developers: Technical evolutions come out of modifications. <i>Christopher Long</i>	
Session 14 15:55 - 16:55	Panel: How do you correct postoperative residual or recurrent severe curvature presenting at puberty? <i>Panelists: Warren Snodgrass, Mark Zaontz, Ahmed Hadidi</i>	Moderator: Peter Cuckow
Session 15 16:55 - 17:45	<u>Free Presentations</u>	Chairs: Amilal Bhat, Fatih Akbıyık
17:45 - 18:00	HIS 2024, Cairo, Presentation of the 6th World Congress <i>Ahmed Hadidi</i>	
18:00-18:15	Closing Remarks	
20:00 - 24:00	Gala Dinner (Case De Garden) <i>Ticketed Event</i> (Dress Code: Semiformal)	
30 September 2023, Saturday		
09:30 - 14:30	Post-Congress Workshop: Live Surgery Chairs: Ahmed Hadidi, Antonio Macedo, Grahame Smith, Güngör Karagüzel, Murat Çakmak Muhittin Erel Lecture Hall, Ege University	
14:30	Adjourn	
15:00-17:00	City Tour	

Day 1 FP Session 1 Thursday 11:40-12:30 Chairs: Kerem Özel, Anne-François Spinoit			
ID	Dur	Title	Presenter
OP-01	11.40 - 11.44	The Learning Curve of Hypospadias Repair Surgery during Paediatric Urology Fellowship Program in Indonesia	Putu Angga Risky Raharja
OP-02	11.44 - 11.48	Can Paediatric Surgical Trainees Safely Perform Supervised Hypospadias Surgery?	Charlotte Hughes
OP-03	11.48 - 11.52	Advancing High-Fidelity Simulated Training in Hypospadias Surgery: Novel Experience With the First Application of a Cadaveric Animal Model in This Field	Sherif Nabhan Kaddah
Discussion 5 min (11.52 - 11.57)			
OP-04	11.57 - 12.00	Age-Related Complications in Primary Penile Hypospadias After Tubularized Incised Plate Urethroplasty and Associated Malformations	Begum Sonmez
OP-05	12.00 - 12.04	Technical Modifications or Technical Errors: a Scoping Review of Modified Tubularized Incised Plate Repairs	Sarah Masroor Jeelani
OP-06	12.04 - 12.07	Tubularized Reconstructed Plate Urethroplasty: The First 150 Cases of a Novel Technique for Distal Hypospadias Repair	Can Taneli
Discussion 5 min (12.07- 12.12)			
OP-07	12.12 - 12.16	Distal Hypospadias: Why Do We Believe That GUD (Glandular Urethral Disassembly) is the Best Alternative	Taiane Rocha Campelo
OP-08	12.16 - 12.19	A Simple Method in Glanular and Coronal Hypospadias: Modification of Magpi	Osman Hakan Kocaman
OP-09	12.19 - 12.22	Penile Dissection Under Continuous Artificial Erection: Preliminary Results of a Novel Technique	Haluk Emir
OP-10	12.22 - 12.25	Comparison of the Complications of One or Two Stages for Repair of Distal Hypospadias With Scrotal Transposition	Mohamed Fahmy
Discussion 5 min (12.25 - 12.30)			

Day 1 FP Session 2 Thursday 15:45-16:45 Chairs: <i>Fabio Bartoli, Mustafa Olguner</i>			
ID	Dur	Title	Presenter
OP-11	15.45 - 15.49	Does Recurrent Hypospadias Surgery Cause More Parental Anxiety?	Mehmet Ugur Yilmaz
OP-12	15.49 - 15.52	Decisional Satisfaction in 16 Year Old Adolescents and Their Parents After Childhood Hypospadias Surgery.	Andreas Urdal
OP-13	15.52 - 15.56	Parental Satisfaction With Day-Surgery for Distal Hypospadias	Bade Toker Kurtmen
Discussion 4 min (15.56 - 16.00)			
OP-14	16.00 - 16.04	Hypospadias is Associated With Impaired Neurodevelopment in the Child	Khyati Kiran J
OP-15	16.04 - 16.08	Evaluation Of Psychiatric Comorbidity In Children With Hypospadias: Preliminary Report	Ergun Ergun
OP-16	16.08 - 16.11	The Effect of Concomitant DSD on the Success of Surgery in Penoscrotal Hypospadias Surgery	Sadık Abıdoglu
OP-17	16.11 - 16.15	Is Evaluation of Urinary Anomalies Necessary in Hypospadias Patients With Disorders of Sex Development?	Ayten Ceren Bakır
Discussion 5 min (16.15 - 16.20)			
OP-18	16.20 - 16.24	Comparative Study Between Autologous Platelet-Rich Fibrin Membrane and Local Flaps as Intervening Layer in Management of Hypospadias	Mohamed Elsherbiny
OP-19	16.24 - 16.28	Trilayer Chitosan/PLA Composite Scaffold for Urethral Reconstruction: Evaluation of Mechanical, Biological, and Angiogenic Properties	Tariq Abbas
OP-20	16.28 - 16.32	Study of Histological and Biochemical Changes in Penile Tissues Due to Tourniquet Application and/or Adrenaline Injection and Their Effect on	Kirtikumar Rathod

		Short Term Complications of Hypospadias Surgery.	
OP-22	16.32 - 16.35	Plate Objective Scoring Tool (POST); Correlation With Post-Hypospadias Repair Complications	Tariq Abbas
OP-23	16.35 - 16.39	Evaluating the Effectiveness of Glans-Urethral Meatus Shaft (Gms) Scoring in Children With Hypospadias	Huseyin Emre Atasever
Discussion 6 min (16.39 - 16.45)			

Day 2 FP Session 3 Friday 11:40-12:30 Chairs: Adham El Saied, Tarkan Soygür			
ID	Dur	Title	Presenter
OP-21	11.40 - 11.44	The Effect of Penile Tourniquet and Continuous Artificial Erection on Penile Tissues: An Experimental Study	Ayşe Karagoz Hakalmaz
OP-24	11.44 - 11.47	Urethral Stents in Hypospadias Surgery: Perspectives and Challenges Among Turkish Surgeons	Bilge Turedi Sezer
OP-25	11.47 - 11.50	Our Experience of Using Suprapubic Cystostomy for Urine Diversion in the Patients With Distal Hypospadias.	Maksym Ponomarenko
Discussion 5 min (11.50 - 11.55)			
OP-26	11.55 - 11.58	The Urethral Stenting Maximum for 3 Days in Distal Hypospadias	Baran Tokar
OP-27	11.58 - 12.01	Comparative Study Between Early and Delayed Removal of Urethral Stent After Tubularised Incised Plate Urethroplasty in Distal Hypospadias	Ahmed Sharaf
OP-28	12.01 - 12.04	Safety of Latex Urinary Catheters for the Short Time Drainage in Hypospadias Surgery	Mehrdad Hosseinpour
OP-29	12.04 - 12.07	A Simple and Effective Method for Hypospadias Repair Dressing Using Nitrofurazone-Impregnated Gauze	Feride Mehmetoglu
Discussion 5 min (12.07 - 12.14)			
OP-30	12.14 - 12.17	22 Years Experience of Proximal Hypospadias Surgery at a Single Center	Merve Dede
OP-31	12.17 - 12.21	Proximal Hypospadias With Severe Chordee: Midterm Follow Up After the Tale Procedure	Mohamed Fawzy
OP-32	12.21 - 12.25	Proximal Hypospadias Without Severe Chordee; Mid-Term Outcome of Lateral Based Onlay Flap	Johannes Wirmer

Day 2 FP Session 4 Friday 16:55-17:45 Chairs: <i>Fatih Akbiyik, Amilal Bhat</i>			
ID	Dur	Title	Presenter
OP-33	16.55 - 16.58	Long Term Results of Three Different Techniques Used in Penoscrotal Hypospadias Repair	Ibrahim Hakki Ozdemir
OP-34	16.58 - 17.02	How Effectively Do We Correct Curvature in Proximal Hypospadias? – A Comprehensive Single Institution Review.	Karl Godlewski
OP-35	17.02 - 17.06	Topical Corticosteroids and Upwards Massage to the Ventral Grafted Side of the Penis Between Bracka Hypospadias Repair Stages 1 and 2 Reduces Recurrent Curvature	Hilmican Ulman
OP-36	17.06 - 17.09	Is Corporotomy Required for Patients With Severe Chordee During Proximal Hypospadias Repair?	Ozge Kilic Bayar
Discussion 6 min (17.09 - 17.15)			
OP-37	17.15 - 17.19	We don't Talk About Complications! an Appraisal of Complication Disclosure in Institutional Hypospadias Leaflets	Hazem Mosa
OP-38	17.19 - 17.23	Hypospadias Complications; A Plan of Managment	Mohamed Fawzy
OP-39	17.23 - 17.26	Mathieu Urethroplasty as a Salvage Procedure in Cripple and Severe Hypospadias	Hasan Deliaga
Discussion 5 min (17.26 - 17.31)			
OP-40	17.31 - 17.34	Two Stage Cedu Technique, a Good Alternative for Severe Hypospadias.	Sekhri-Zeggar Lyes
OP-41	17.34 - 17.37	Comparison of The Single-Stage and Staged Correction of Proximal Hypospadias	Gokhan Demirtas
OP-42	17.37 - 17.40	Chordee Without Hypospadias: 5 Patients with 5 Procedures	Milan Gopal
Discussion 5 min (17.40 - 17.45)			

Poster Session 1 28 September 2023, Thursday - 12:45 Chairs: Can Taneli, Bilge Türedi Sezer		
ID	Title	Presenter
PP-01	Urethral Advancement According to KOFF in the Distal Hypospades.	Abdelghani Sebie
PP-02	GTIP Urethroplasty for Hypospadias Repair: Evaluation of Results with Objective Scoring Systems	Saidanvar Agzamkhodjaev
PP-03	Disassembled Urethroplasty With Urethral Advancement Technique for Distal and Midshaft Hypospadias Repair	Zafar Abdullaev
PP-04	GUD Technique in Hypospadias Redos: an Value Alternative to Distal Fistulas and Glans Deiscense	Taiane Rocha Campelo
PP-05	A Noval Dorsal Meatoplasty Method For Resistant Meatal Stenosis After Distal Hypospadias Surgery	Fulya Beceren
PP-06	Y-V Versus MAGPI in Repair of Distal Hypospadias	Basma Waseem
PP-07	Comparative Study Between Tubularized Incised Plate Urethroplasty (TIP) & Onlay Penopreputial Flap Urethroplasty (Mansoura Modification of Unilateral Koyanagi Technique) in Management of Hypospadias Cases Without Chordee	Sherif Medhat
PP-09	Evaluation of Factors Affecting Meatal and Urethral Diameter Post TIP: A Randomized Controlled Trial	Mohamed Elsherbiny

Poster Session 2 28 September 2023, Thursday - 12:45 Chairs: Mustafa Melikoğlu, Ahsen Karagözlü Akgül		
ID	Title	Author
PP-10	Engineering a Highly Elastic Scaffold for Urethral Application	Renea Sturm, MD Faap
PP-11	Cryocalcium Glue in Hypospadias Surgery	Mehrdad Hosseinpour
PP-12	Pre-operative Testosterone Injection Before 2-Stage Repair of Severe Hypospadias Improves Penile Biometry and Reduces Glans Dehiscence	Khyati Kiran Janapareddy
PP-13	Method of Fixation of the Glans Penis During Surgical Operations for Hypospadias in Children	Alisher Sultanov
PP-15	Impact of Catheter Type on Early and Late Complications in Patients with Distal Hypospadias	Bade Toker Kurtmen
PP-16	Postoperative Pain Management for Hypospadias: Still a Dilemma	Darshana Rathod
PP-18	Adult Gender Dysphoria of a Case of Operated Severe Hypospadias	Ayşegül Akbulut

Poster Session 3 29 September 2023, Friday - 12:45 Chairs: Selami Sözübir, Tariq Abbas		
ID	Title	Author
PP-19	Wider Angle of Dangle in Proximal Hypospadias: A Neglected Feature of the Anomaly that Compromises the Outcome	Yusuf Atakan Baltırak
PP-20	Correction Of Curvature In Single Stage Hypospadias Repair With Foreskin Reconstruction	Hazem Mosa
PP-21	Hypospadias Stage I Repair: To Quilt or not to Quilt?	Zehra Kazmi
PP-22	Two-stage Repair of Proximal Hypospadias Using Free Preputial Graft - Lessons Learnt	Jan Trachta
PP-23	Urethral Diverticulum Complicating Hypospadias Surgery	Hasan Deliaga
PP-24	Evaluation of Midline Incisional Heineke-Mikulicz Type Penile Plication in Hypospadias Patients	Hasan Deliaga
PP-25	Use of Inlay Grafts in Hypospadias Reoperations Presenting with Mid and Distal Urethral Strictures.	Taiane Rocha Campelo
PP-26	Evaluation of the Early Period Results of Three Different Techniques of Excision the Urethral Plate in the Repair of Severe Proximal Hypospadias	Gokhan Demirtas
PP-27	A Survey Study on the Cosmetic Outcome of Penoscrotal Transposition	Derya Canarslan

Poster Session 4 29 September 2023, Friday - 12:45 Chairs: <i>Mircia Ardelean, Yaşar Issi</i>		
ID	Title	Author
PP-28	A New Urethral Defect Based Hypospadias Classification System	Tariq Abbas
PP-30	Our Experience in Chordee without Hypospadias	Suleyman Tagci
PP-31	Spongioplasty as a Second Layer Over Urethroplasty in Distal and Midpenile Hypospadias Patients	Hasan Deliaga
PP-32	Use of Hyperbaric Oxygen Therapy in Treatment of Postoperative Glans Ischemia After Hypospadias Surgery	Mehmet Ugur Yilmaz
PP-33	Glans Ischemia After Circumcision and Dorsal Penile Nerve Block. Clinical Case.	Filipp Turov
PP-35	Outcomes of Isolated Male Epispadias	Mircia-Aurel Ardelean
PP-36	A Rare Case of Duplication Urethra. Clinical Observation.	Artem Vrublevskiy

ORAL PRESENTATIONS

OP-01 The Learning Curve of Hypospadias Repair Surgery During Paediatric Urology Fellowship Program in Indonesia

Putu Angga Risky Raharja¹, Gerhard Reinaldi Situmorang ¹, Arry Rodjani ¹, Hendy Mirza ², Yonas Immanuel Hutasoit³, Hilman Hadiansyah ⁴, Andre Yudha Alfanius Hutahaeen ⁴, Irfan Wahyudi ¹

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Introduction: Previous studies have highlighted the significance of surgical experience as a determining factor for the outcome of hypospadias repair. Paediatric urology fellowship program was designed to accelerate the learning curve of junior urologist in various paediatric urology procedures, including hypospadias repair. This study aimed to provide insight in the learning curve of hypospadias repair during the paediatric urology fellowship program. **Methods:** Data was prospectively collected from 176 hypospadias repairs conducted by three paediatric urology fellows during their six-month fellowship training program between January 2022 and January 2023 at four paediatric urology centres in Jakarta, Indonesia. Patients who underwent secondary repair or the first stage of staged repair were excluded from the analysis. Complications such as urethrocutaneous fistula formation and wound dehiscence requiring secondary repair were documented. Follow-up visits were conducted after the repairs to identify and address any complications. The learning curve of each fellow in hypospadias repair was documented. **Results:** Each fellow performed a median of 58 procedures (range: 56–62) during their training period. The average age of the patients was 6.0 ± 3.3 years, with a mean body mass index (BMI) of 17.6 ± 4.8 kg/m². Out of the total number of cases, 34 (19.3%) experienced complications, including 19 cases of fistula formation and 15 cases of wound dehiscence, over a mean follow-up period of 24.1 ± 17.1 weeks. There were no significant differences in demographics, distribution of hypospadias, or complication rates observed among the fellows (Table 1). Notably, there was a significant improvement in the learning curve of hypospadias repair for each fellow after performing 30 consecutive cases, achieving a success rate of over 84% (Figure 1). The average success rate showed a significant increase from 74.4% to 87.2% after 30 cases ($p=0.032$). **Conclusion:** Significant improvement of hypospadias repair success rate was observed among paediatric urology fellows after performing 30 consecutive hypospadias repair during their training. This improvement suggests that the fellowship program likely played a pivotal role in accelerating their learning curve.

Table 1. The demographics, distribution of hypospadias, and complication rate between each fellows during their training

	Fellow A (N = 62)	Fellow B (N = 58)	Fellow C (N = 56)	P value
Age (years)	6.2±3.3	6.4±3.2	5.4±3.4	0.132
BMI (kg/m ²)	18.1±4.8	18.0±5.6	16.5±3.6	0.373
Hypospadias type				0.427
Distal	15 (24.2%)	15 (25.9%)	10 (17.9%)	
Mid-shaft	15 (24.2%)	11 (19.0%)	8 (14.3%)	
Proximal	32 (51.6%)	32 (55.2%)	38 (67.9%)	
Complication	12 (19.4%)	12 (20.7%)	10 (17.9%)	0.929
Fistula	7 (11.3%)	6 (10.3%)	6 (10.7%)	0.986
Wound dehiscence	5 (8.1%)	6 (10.3%)	4 (7.1%)	0.819

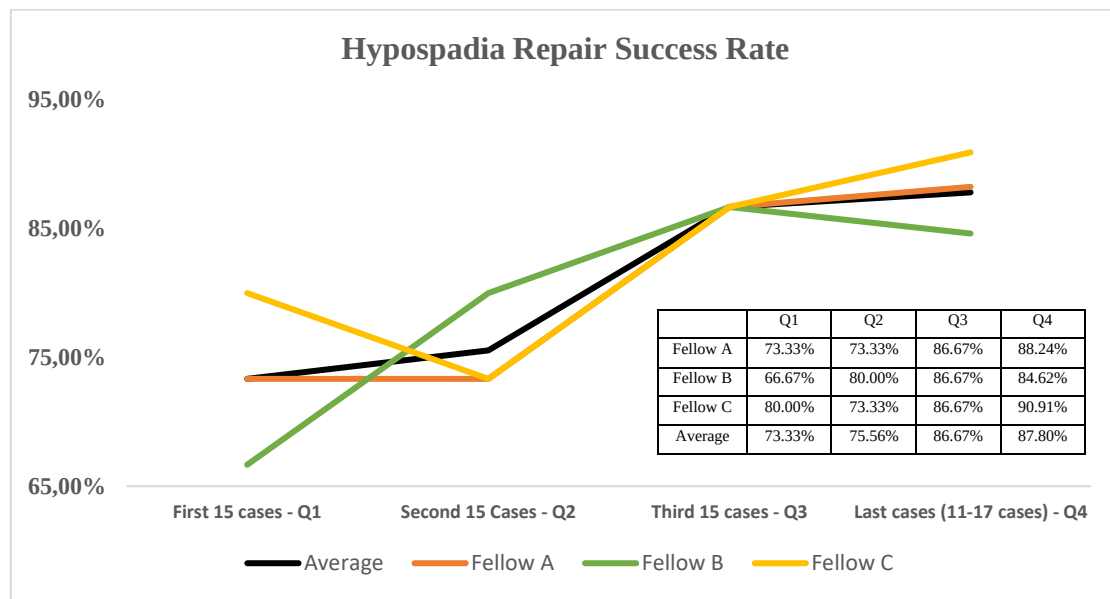


Figure 1. Hypospadias repair success rate of each fellows based on number of consecutive cases during their training

OP-02 Can Paediatric Surgical Trainees Safely Perform Supervised Hypospadias Surgery?

Ms Charlotte Hughes¹, Mr Hazem Mosa¹, Ms Joanne Parr¹, Mr Ravindar Anbarasan¹, Mr Milind Kulkarni¹, Mr Azad Mathur¹

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Aims Hypospadias repair is perceived as a technically demanding, complex procedure only perfected through experience and that the first chance at the hypospadias surgery is the best chance to get high quality outcomes. Therefore, trainees are often not given opportunities to undertake the procedure, with a rationale that an inexperienced operator will increase the complication rate in this 'high stakes' surgery. We compared the outcomes of supervised trainees and their consultant mentors repairing distal and proximal hypospadias at our institute. Methodology We undertook a retrospective review of all hypospadias repairs performed between April 2019-April 2022 in a single tertiary Paediatric Urology centre. Patients were identified using an electronic operating database and their clinical outcomes were reviewed. Patients with less than 6 months follow up were excluded. Variables assessed were meatal location, grade of primary surgeon, operative time, follow-up and complications. Outcomes were studied in two groups based on the primary operator: consultant or supervised trainee. Statistical analysis was performed using Mann-Whitney-U and Fishers-exact test and a p-value of <0.05 was considered significant. Results 74 operations met the inclusion criteria; 43% (32/74) were performed by supervised trainees, and 57% (42/74) by consultants. Median age at surgery was 2y (range 1-16y). Median follow up was 24months (range 6-45months). 26% (19/74) of cases were proximal, of which 8 (42%) were operated by trainees and 11 by consultants (58%). Operative time was similar between the groups (trainees 2.8hrs vs consultants 2.7hrs, p=0.19). Complication rates were 28% for trainees (9/32) and 12% for consultants (5/42), p=0.13. Complications included: urethrocutaneous fistulae (3 in trainee group vs 2 in consultant group), glans dehiscence (4 in trainee group vs 2 in consultant group), each group had 1 urethral stricture, there was 1 metal stenosis in trainee group and no urethral diverticulae (table). Conclusion Surgical trainees can be safely supervised to have substantial involvement in proximal and distal hypospadias surgery without significantly compromising the outcomes or duration of surgery. This will help newly qualified consultants to be competent in this surgery from the start of their independent practice. Larger cohort prospective studies are needed to further assess this.

	Trainees	Consultants	p-value
Total n (%)	32 (43%)	42 (57%)	
Age at surgery in years Median (range)	2 (1-15)	2 (1-16)	0.43
Follow up in months Median (range)	29.5 (6-37)	19.5 (6-15)	
Proximal n (%)	8 (25%)	11 (26%)	0.86
Operative time in hours Mean (range)	2.8 (1.9-4.2)	2.7 (1.5-5.25)	0.19
Complications n (%)	9 (28%)	5 (12%)	0.13
Urethrocutaneous fistula	3	2	
Glans dehiscence	4	2	
Urethral stricture	1	1	
Meatal stenosis	1	0	
Urethral diverticula	0	0	

Keywords: Hypospadias, Trainee, Mentor, Complication

OP-03 Advancing High-Fidelity Simulated Training in Hypospadias Surgery: Novel Experience with the First Application of a Cadaveric Animal Model in This Field

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Background: Simulated training in Paediatric Surgery/Urology is becoming a fundamental aspect of structured training. Hypospadias, as a common condition requiring precise dissection and reconstruction skills, attracts a steep learning curve, and currently lacks a variety of practical and effective surgical training models. **Aims:** We hereby present a video demonstration and our experience with a cadaveric animal model of calf penis, offering high-fidelity simulation for hypospadias surgery training. This realistic and hands-on training tool aims to enhance surgical skills and optimize patient outcomes, by advancing simulated training methods in hypospadias surgery. **METHODS:** Ethical approval was obtained. On an annual recurring hands-on course, run to date on three occasions (2019, 2021 and 2022), The HypoLearn (INTERNATIONAL HYPOSPADIAS HANDS ON WORKSHOP), since 2019 (except for the COVID-19 year); trainees from different countries, supervised by expert instructors, participated in the exercise utilizing an isolated cadaveric calf penis animal model. A seminar, and a video presentation was delivered to demonstrate the relevant anatomy and present the key steps of the procedure. This starts with anatomy of the model, specimen preparation, Matthieu technique (meatal-based flap urethroplasty), Thiersch-Duplay technique (tabularised plate urethroplasty), formation of a Dartos waterproofing second layer (flap), and finally a glans-plasty (glanuloplasty), all done over a 6Fr or 8Fr urethral stent. **RESULTS:** Trainees involved varied according to the number of years in specialist training, between higher (year 4-6) and advanced surgical training (>6 years). All instructors were expert hypospadias surgeons, with more than 100 cases performed independently. Both trainees and instructors judged this model to accurately resemble the hypospadias surgery, regarding needle penetrability and suture holding of the tissues, as well as the possibility to complete a sub-urothelial inverted suture line. **CONCLUSION:** The model allows high-fidelity training on the two main principles for distal hypospadias repair. Most instructors found the cadaveric animal model to be effective in facilitating the transfer of surgical skills. Trainees reported satisfactory acquisition of skills using this model.

Keywords: Hypospadias; Simulated Training; Cadaveric Simulation; Animal Models; Surgical Skills.

OP-04 Age-Related Complications in Primary Penile Hypospadias after Tubularized Incised Plate Urethroplasty and Associated Malformations

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OBJECTIVE The aim of this study was to compare the incidence of age-related complications in primary penile (distal and mid) hypospadias patients who underwent tubularized incised plate urethroplasty (TIPU) procedure and to determine their incidence of associated malformations. **METHODS** 435 patients were operated on for primary penile hypospadias between 2018 and 2023. This retrospective, single center study evaluated 275 pediatric patients with primary penile hypospadias who underwent the TIPU procedure by three senior pediatric surgeons. 115 patients who underwent other procedures, who were circumcised before or lost to follow-up were excluded. The data of the patients were evaluated in terms of urethral meatus location, complications and co-occurrence with associated malformations. The complications were recorded as urethrocutaneous fistula, meatal and urethral stenosis, glans dehiscence, residual chordee. Patients were divided into 4 groups according to age at surgery; Group 1: 6-18 months, Group 2: 1.5-5 years, Group 3: 5-10 years, Group 4: 10-14 years. The data were compared by age and urethral meatus location. Chi-square test was used to compare the difference between two independent categories. Numerical data were given as mean±standard deviation. **RESULTS** There was no significant difference between the number of distal (n=244) and mid-penile (n=31) hypospadias patients in age groups (p=0.270). The mean follow-up period was 7.75±10.89 months. No significant difference was found in the complication rate between distal and mid-penile hypospadias patients (p=0.130) and between age groups (p=0.392). The complication rate was 23% in Group 1, 34.9% in Group 2, 26.9% in Group 3, 31.6% in Group 4. The most common complication in all age groups was urethrocutaneous fistula. Inguinal hernia (7.6%), undescended testicle (3.6%) and urinary system anomalies such as nephrolithiasis, vesicoureteral reflux, bladder diverticulum, hypoplastic kidney, renal cyst, ectopic kidney, bifid renal pelvis (4.3%) were recorded as associated malformations. There was no significant difference in terms of associated malformations between mid-penile and distal hypospadias patients (p= 0.124). **CONCLUSION** Although higher rates of complications were reported in older children after TIPU, we found no significant difference among age groups in primary penile hypospadias. TIPU procedure can be performed at any age after 6 months.

	Group 1 (6-18 months)	Group 2 (1,5-5 years)	Group 3 (5-10 years)	Group 4 (10-14 years)	Total	p
Complications	12 (23,1%)	44 (34,9%)	21 (26,9%)	6 (31,6%)	83 (30,2%)	0,392
No complications	40 (76,9%)	82 (65,1%)	57 (73,1%)	13 (68,4%)	192 (69,8%)	
Total	52 (100%)	126 (100%)	78 (100%)	19 (100%)	275 (100%)	

Table 1: Complication rates within age groups

	Group 1 (6-18 months)	Group 2 (1,5-5 years)	Group 3 (5-10 years)	Group 4 (10-14 years)	All Groups
Urethrocutaneous Fistula	8 (15,38%)	22 (17,46%)	11 (14,1%)	5 (26,31%)	46
Meatal Stenosis	0 (0%)	14 (11,11%)	5 (6,41%)	0 (0%)	19
Urethral Stenosis	0 (0%)	0 (0%)	0 (0%)	1 (5,26%)	1
Glans Dehiscence	2 (3,84%)	3 (2,38%)	3 (3,84%)	0 (0%)	8
Residual Chordee	0(0%)	1 (0,79%)	0(0%)	0(0%)	1
Fistula + Urethral Stenosis	0(0%)	0(0%)	0(0%)	1 (5,26%)	1
Fistula + Meatal Stenosis	1 (1,92%)	3 (2,38%)	2 (2,56%)	0(0%)	6
Number of Patients	52	126	78	19	275

Table 2: The distribution of hypospadias complication

	Complications	No Complications	Total	p
Mid-penile hypospadias	13 (15,7%)	18 (9,4%)	31 (11,3%)	0,130
Distal hypospadias	70 (84,3%)	174 (90,6%)	244 (88,7%)	
Total	83 (100,0%)	192 (100,0%)	275 (100,0%)	

Table 3: Complication rates within distal and mid-penile hypospadias

	Group 1 (6-18 months)	Group 2 (1,5-5 years)	Group 3 (5-10 years)	Group 4 (10-14 years)	p
Distal	7 (13,5%)	18 (14,3%)	5 (6,4%)	1 (5,3%)	0,270
Mid-penile	45 (86,5%)	108 (85,7%)	73 (93,6%)	18 (94,7%)	
Total	52 (100%)	126 (100%)	78 (100%)	19 (100%)	
Mean age	14,81±2,1 months	2,89±0,97 years	7,56±1,37 years	11,74±1,73 years	

Table 4: Age groups and location of meatus

	Mid-penile	Distal	Total
Inguinal hernia	4(12,9%)	15(6,15%)	19
Undescended testicle	2(6,45%)	8(3,28%)	10
Nephrolithiasis	0(0%)	4(1,64%)	4
<i>Vesicoureteral reflux</i>	0(0%)	2(0,82%)	2
Bladder diverticulum	0(0%)	1(0,41%)	1
Hypoplastic kidney	0(0%)	1(0,41%)	1
Renal cyst	0(0%)	1(0,41%)	1
Inguinal hernia + Ectopic kidney	0(0%)	1(0,41%)	1
Inguinal hernia + Bifid renal pelvis	0(0%)	1(0,41%)	1
<i>Vesicoureteral reflux</i> + Bladder diverticulum	0(0%)	1(0,41%)	1
Number of Patients	31	244	275

Table 5: The distribution of associated malformations

Keywords: hypospadias, age, complications, tubularized incised plate urethroplasty

OP-05 Technical Modifications or Technical Errors: A Scoping Review of Modified Tubularised Incised Plate Repairs

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Aim of the study: Hundreds of techniques to repair hypospadias have been described over the years, many of them being a modification of another, previously described. In recent years, the tubularised incised plate (TIP) repair has become one of the most employed surgical techniques used in distal hypospadias. Since his description, multiple modifications have been proposed in pursuit of better clinical outcomes. Nevertheless, a wide range of complications has been reported. We aimed to investigate the rationale behind these modifications and their clinical outcomes. Materials and Methods: We reviewed studies reporting modifications of the TIP procedure for hypospadias repair. This was performed following the PRISMA ScR extension for Scoping Reviews guidelines using two platforms (PubMed and Google scholar) and searching for the keyword ‘modification to TIP hypospadias repair’. Duplicate records were removed. Two independent reviewers analysed the studies individually. Results: A total of 22 articles including 3389 patients met the search criteria. Only 5/22 (22.7%) studies provide a rationale for the suggested modification and only 3/22 (13.6%) used a pre-modification or contemporary comparison group. The mean age at surgery was 36.3 months while the mean follow-up time was 15.5 months (range 6 weeks-60 months). Details of the studies are presented in table. Complications rates varied from 1.7% to 59.3%, with urethrocutaneous fistula (0.9%-26.8%), glans dehiscence (0.5%-12.2%) and meatal stenosis (0.89-33.3%) being the most common. (7/22) 31.8% reported a higher complication rate compared to the original TIP repair. Conclusion: Reporting of technical modifications of the TIP repair lacks standardization with most studies reporting no rationale for the modification, no pre-modification comparison group and no long-term outcomes. Prospective maintenance of hypospadias database and periodic review of clinical outcomes is essential to improve the reporting of technical modifications and understanding the actual benefit of these modifications.

Table 1: Summary of studies reporting outcomes for TIP modification

Parameters	No: of studies (n=22)	Percentage (%)
Study Design		
<i>Retrospective</i>	11	50
<i>Prospective</i>	9	41
<i>RCT</i>	2	9
Location of hypospadias		
<i>Distal</i>	12	55
<i>Proximal</i>	5	23
<i>Both</i>	4	28
<i>Not mentioned</i>	1	4
Curvature correction		
<i>Unspecified</i>	12	45
<i>Degloving</i>	6	22
<i>Midline plication</i>	3	11
<i>Dorsolateral Plication</i>	3	11
<i>Other methods</i>	3	11
TIP Modification		
<i>Tip/skin incision</i>	12	45
<i>Barrier layer technique</i>	2	7
<i>Urethroplasty technique</i>	3	11
<i>Skin closure technique</i>	8	30
<i>Other</i>	2	7

Keywords: hypospadias, Snodgrass repair, TIP, modification

OP-06 Tubularized Reconstructed Plate Urethroplasty: The First 150 Cases of a Novel Technique for Distal Hypospadias Repair

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Introduction: The aim of the study is to introduce a new method, tubularized reconstructed plate urethroplasty (TRPU) in distal hypospadias repair which allows the tubularization of urethral plate without incision or grafting. An analysis is presented of the outcome in the first 150 patients treated by this new technique. **Materials and Methods:** This study is a prospective single surgeon series. The TRPU procedure was performed in 150 patients between January 2019 and January 2022. Demographic data, duration of follow-up, complications were recorded. The operation is started with a vertical incision from the distal half of the glans penis. This incision creates a diamond-like defect. Wedge-shaped removal of the spongiosum tissue from a segment extending to the hypospadiac meatus creates a groove behind the urethral plate by preserving the urethral epithelium. The diamond-shaped defect is closed by suturing the vertical incision horizontally using the Heineke-Mikulicz principle; further expanding the diameter of the narrow plate. Stretched and loosed urethral plate by evacuation of the spongiosum tissue is secured into the glans using quilting stiches. Thus, a cavity was formed into the glans that simulates the fossa navicularis. Hypospadias with flat glans and narrow plate is converted to deep groove and wide urethral plate using this new procedure. **Results:** The mean preoperative glans width was 13.5 ± 0.5 mm, urethral plate width was 6.0 ± 0.7 mm. TRPU procedure is suitable for flat glans which are not ideal for relaxing midline incision, but also not narrow enough to require grafting. The mean surgical duration was 90 ± 15 minutes and mean postoperative follow-up period was 22.6 months. There were no immediate postoperative complications. Meatal stenosis did not occur in any of our patients. The total complication rate was 4.8%. The TRPU procedure involved evacuation of glanular spongiosum tissue, a cavity is created into the glans which facilitates embedding of the neourethra deeper into the glans. Thus, a slit-like wide meatus and straight stream that contains flare with a translucent center which resembling normal voiding was obtained. **Conclusions:** We believe that the TRPU is a safe and relatively simple procedure with a low rate of complications good cosmetic results and functional outcome.

Keywords: Hypospadias, Urethral Plate, Urethroplasty, Surgical Repair, Penis

OP-07 Distal Hypospadias: Why do we Believe that Gud (Glandular Urethral Disassembly) is The Best Alternative

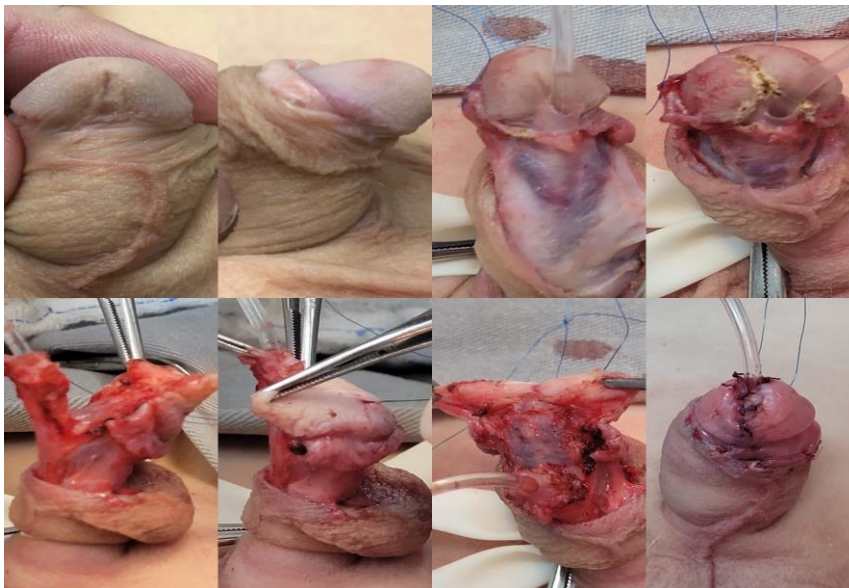
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Introduction: Distal hypospadias represent the most frequent presentation of hypospadias. We have accumulated 5 years with the GUD technique (glandular urethral disassembly). and want to review our data. **Methods:** An aggressive partial glandular disassembly in association with minor urethral mobilization to treat distal hypospadias forms represent the rationale of this procedure. The combination of these two steps avoid the need for urethroplasty and suture lines, minimizing the risk for fistulas. We reviewed all cases operated in our institution since 2018. **Results:** 225 patients with distal hypospadias were treated. The position of the meatus after degloving the penis was coronal 147 cases, subcoronal 76 cases, 2 patients with megameatus and intact foreskin. Penile curvature showed 160 patients without curvature, 54 patients had curvature less than 30 degrees, 8 patients had curvature 30-45 degrees, 3 patients curvature greater than 45 degrees. Four (1.07%) patients presented penoscrotal transposition accompanied by hypospadias. Thirty-six (18.4%) patients were treated as secondary repair, presenting as urethral fistula, or coronal meatus. These patients were treated with the same principle as the primary cases. We found complications in 9 of the patients (4.0%), the complications presented were: 7 (3%) patients with urethral fistula, 5 (2.2%) patients with glans dehiscence and 3 (1.3%) patients who presented both complications. The minimum follow-up was 6 months and a maximum of 66 months (mean 25,2 months). **Conclusion:** The combination of minor mobilization of the urethra with down adjustment and rotation of the glans medially represent a viable alternative strategy for distal hypospadias surgery.



Keywords: [distal hypospadias]

OP-08 A Simple Method in Glanular and Coronal Hypospadias: Modification of Magpi

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Introduction: The most common form of hypospadias is distal hypospadias. Although many surgeons perform TIP surgery for distal hypospadias repair, different methods have been in voluminous numbers described. In this study, we aim to present a MAGPI modification in glanular and coronal hypospadias that prevents meatus retraction and enables a slit-like meatus. **Materials and Methods:** The pre-operative and post-operative images and post-operative complications of the patients who were operated on with the modified MAGPI method in our institution between June 2016 and December 2022 were retrospectively analyzed. In the modified MAGPI method, meatoplasty according to Heineke-Mikulicz principle, as described in the classical method was not performed, and instead a glanuloplasty was carried out with sutures passing the glans wings as well as taking bites over the urethra. **Results:** The mean age of 122 patients was 1.8 years of age (min: 6 months, max: age). The mean follow-up period was 2.5 years (min: 1 month, max: 6 years). No post-op urethral catheter was placed in any patient. Thirty-four of the patients had glanular and 88 had coronal hypospadias. 5 patients had megagameatus intact prepuce. 3 patients had a history of failed TIP repair. Complications were encountered in only 2 patients (1.6%). 1 patient had meatus retraction, and one had glans dehiscence. The cosmetic appearance of all patients was satisfactory and their urinary caliber was good. **Conclusions:** The modified MAGPI method in glanular and coronal hypospadias can be performed as a method with lesser complications, independent of other factors. Since Heineke-Mikulicz-style meatoplasty is not performed, a slit-like meatus in cosmetic terms can be obtained. We believe that sutures passing over the urethra will reduce the retraction of the meatus.

Keywords: Hypospadias, MAGPI, Coronal, Glanular

OP-09 Penile Dissection Under Continuous Artificial Erection: Preliminary Results of a Novel Technique

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Introduction Our aim is to describe a novel technique in penile surgery: “penile dissection under artificial erection (PDAE)” and to present the course of cases on which PDAE was implemented. **Methods:** Data of 53 patients who underwent PDAE between September 2020 and December 2022 were included in the study. Diagnoses were distal hypospadias in 33 cases, proximal hypospadias in 14 cases, and isolated penile chordee in 6 cases. Demographic data, preoperative findings, intraoperative findings, and long-term follow-up results were analyzed. For PDAE, penile tourniquet was applied after degloving in all cases. Artificial Erection (AE) was achieved by continuous intracavernosal saline infusion via a 25-gauge butterfly needle. After curvature evaluation: mobilization of periurethral spongy tissue, the urethral plate and penile urethra over the cavernous bodies, glanular wings dissection, ventral superficial transverse corporotomies, dorsal plications and midline longitudinal urethral plate incisions were performed under AE. The outcome of the procedures was evaluated during the same period without repeated tourniquets. Afterwards, the rest of the operations were completed without PT. **Results:** The mean tourniquet time in distal hypospadias cases was 17.3 minutes (8-30 minutes). In postoperative follow-up, spontaneously healed coronal fistula with ventral chordee recurrence was observed in one case, and glanular ventral tilt of approximately 20 degrees was detected in another. No erection related problem was observed. The mean follow-up time was 13.8 months (6-34.5 months). The mean tourniquet time in proximal hypospadias cases was 21.4 minutes (17-30 minutes). No graft-related complications were observed in the postoperative follow-up. Two of the secondary cases that had undergone staged tubularization developed stenosis requiring self-calibration, and another patient presented with a coronal fistula. The neourethral plates of untubularized cases were evaluated as suitable for tubularization. The mean tourniquet time in patients with isolated chordee cases was 24 minutes (15-30 minutes). No chordee recurrence or erection-related complaints were observed in the follow-up. **Conclusion** Penile dissection under artificial erection (PDAE) has been evaluated as an effective adjunctive method in penile surgery with reducing blood loss, preventing deterioration of vision, augmenting exposure, and eliminating the need for repetitive tourniquets along with satisfactory long-term outcomes.

Keywords: artificial erection, penile tourniquet, spongioplasty, simple anatomic closure, hypospadias repair

OP-11 Does Recurrent Hypospadias Surgery Cause More Parental Anxiety?

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PURPOSE The aim of this study was to compare the levels of anxiety in families who underwent recurrent hypospadias surgery due to complications with those of families who underwent their first hypospadias surgery, in order to assess the differences. **MATERIAL AND METHODS** The study included patients who underwent their first operation for distal hypospadias between June 2022 and May 2023 from two different centers, as well as patients who underwent recurrent hypospadias surgery due to any complications. Patients scheduled for a two-stage hypospadias repair were not included in the study. The parents of the patients completed the State-Trait Anxiety Inventory (STAI)FormTX-I at the initial examination, pre-operation, and post-operation stages. A comparison was made between patients who underwent recurrent operations and those who underwent their first surgery in terms of anxiety levels. **RESULTS** The study included a total of 132 patients, consisting of 42 patients who underwent surgery due to complications and 90 patients who underwent their first operation for distal hypospadias. In total, 264 parents were included in the study. The average age for all parents was determined to be 33.94 ± 8.10 years. In the group of patients undergoing their first operation, the anxiety score at the initial visit was determined to be 50.62 ± 5.38 , while in patients who underwent recurrent operations, it was found to be 54.80 ± 4.25 ($p=0.01$). On the preoperative first day, the scores were 45.59 ± 5.33 and 51.22 ± 6.19 ($p=0.01$), respectively, and on the 3rd postoperative day, they were 42.02 ± 8.12 and 50.04 ± 7.69 ($p=0.01$). It was observed that the group of patients who underwent recurrent operations had consistently higher levels of anxiety in each measurement. Remarkably, while the other measurements showed a decreasing trend, in the group of patients who underwent recurrent operations, there was a similarity between the preoperative measurement and the postoperative measurement ($p=0.42$). Furthermore, in all measurements, mothers exhibited higher levels of anxiety compared to fathers. **CONCLUSIONS** Families of children with hypospadias who require additional operations due to complications experience higher levels of anxiety at every stage.

Table 1: STAI-FORM TX- I Scores of Patients' Parents at the Initial Examination, Pre-operation, and Post-operation

	First examination	Preoperative	Postoperative
First Operation	50,62±5,38	45,59±5,33	42,02±8,12
Recurrent Operation	54,80±4,25	51,22±6,19	50,04±7,69

Keywords: hypospadias, parental, anxiety, recurrent

OP-12 Decisional Satisfaction in 16 Year Old Adolescents and Their Parents After Childhood Hypospadias Surgery.

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PURPOSE To investigate the self-reported decisional satisfaction in adolescents and their parents after childhood hypospadias surgery. **MATERIAL AND METHODS** Sixteen-year-old adolescents, operated for hypospadias in childhood, were identified in medical registers at Oslo University Hospital and invited to participate in a structured interview. A nurse practitioner conducted an informed conversation with each patient and his parent separately. An open question was asked to explore their views on which age the patient should be operated, and a categorical question on the patients right to consent; 1. “What are your views on when boys born with hypospadias should be operated? and 2. Should the patient wait until they are old enough to choose by themselves?” The first question was answered in free text, and the second by choosing one of 3 alternatives (0= No, 1= Yes, 2= Not sure). **RESULTS** One-hundred and seventeen adolescents were invited and 113 (97%) adolescents and 93 (80%) parents participated. Question 1: Results from a thematic analysis of free text answers showed that the most common view stated by the adolescents was that early surgery is better because a child do not have memory of the treatment period. Second – the adolescents stated that it is problematic with surgery related to your penis in adolescence because you’re more embarrassed towards your peers. Third - waiting might cause more problems because you you would be aware of looking different from your peers. Fourth - they believed that in adolescence, you would be more afraid of surgery in this area and fifth – they stated that the parents should decide. Two stated that children should be old enough to give their own consent. The most common view stated by the parents was avoidance of embarrassment if operated in adolescence. Question 2: Patients: 96 (85%) answered No – meaning; should not wait until they were old enough to choose themselves. Two patients answered Yes and 15 answered Not sure. Parents: 91 (98%) answered No – meaning should not wait. One parent said Yes and one answered Not sure. **CONCLUSION** Most patients (85%) and their parents (98%) were satisfied with early surgery.

Keywords: Decisional Satisfaction Adolescents Childhood Hypospadias Surgery

OP-13 Parental Satisfaction with Day-Surgery For Distal Hypospadias

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Aim: This study aimed to investigate the parents' view about the duration of hospitalization for patients undergoing surgery for proximal hypospadias. **Methods:** The study included patients who underwent surgery for hypospadias at our clinic between 2021 and 2023. Hospital records were reviewed for data regarding patient demographics, surgical details, and presence of complications. Parents were contacted via phone to interview about their opinion using a 20-question survey. Patients who could not be contacted via telephone or whose contact information could not be found, as well as those who underwent a secondary surgery, were excluded from the study. The responses obtained were analyzed in conjunction with the collected data **Results:** Among 211 patients operated in two years, parents of 169 patients could be contacted. All accepted to be included in the study. The median age of the patients was 42 (6-189) months. Mean operative duration was 84±27 minutes. Majority (n=123, 73%) had day surgery, the others were hospitalized for a median of one day (1-7). Most of the patients (n=159, 90.4%), including the ones who underwent day surgery were discharged with a catheter. Among the hospitalized patients, 57.6% (n=33) expressed dissatisfaction with the length of their stay, expressing a desire for a shorter duration or even no hospitalization at all. Conversely, 97.6% (n=41) of the patients who underwent day-surgery reported satisfaction with their hospital stay. Difference was statistically significant (p=0.002). Among all, 43 patients experienced catheter-related complications requiring hospital readmission before the routine follow-up visit, but there was no difference between patients who had day-surgery or hospitalized longer in terms of catheter related complications of stay (p=0.034). There was also no difference in late complications such as fistula (p=0.165) and re-do surgery (p=0.521). **Conclusion:** Our results showed that day-surgery did not change early or late complications for distal hypospadias, it did not increase unplanned readmissions, and parents of the day-surgery group were more satisfied with their hospitalization duration.

Keywords: distal hypospadias, day-surgery, parental satisfaction

OP-14 Hypospadias is Associated with Impaired Neurodevelopment in the Child

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Purpose Hypospadias is a common congenital anomaly in boys. Although it is presumed that hypospadias may be associated with developmental delay, only a few studies objectively evaluated the neurodevelopment in hypospadiac children. In this study, we evaluated the neurodevelopmental status of boys with hypospadias using the ASQ3 (Ages and Stages) questionnaire. Methods Boys with hypospadias between 1-5 years of age were evaluated using the ASQ3 questionnaire. The prevalence of neurodevelopmental delay was noted. Various parameters (gestational age, birth weight, severity of hypospadias, anesthetic exposure, androgen stimulation) were compared between the children with developmental delay and those without developmental delay. Statistical analysis was done using software. Results We studied 105 boys with hypospadias (45 distal/midpenile, 60 proximal); Forty-one children (40%) had developmental delay, most commonly in the fine motor domain (34%). There was significant association of low birth weight ($p=0.0453$) with developmental delay. Conclusions We found that hypospadias, especially when associated with low birth weight, had a high incidence of developmental delay. Most children with developmental delay had impairment in the fine motor domain. We recommend neurodevelopmental assessment of all boys with hypospadias so that early referral and intervention can be initiated where indicated.

	Total	Normal Dev	Delayed Dev
Responses	105	55	41
Testosterone	40% (43)	41% (23)	46% (19)
Assessment Age	36.0388	37.07	32.35
Avg Gestational age	36.2151	36.23	36.28
Preterm	9	3	4
Avg Birth weight	2.53543	2.63	2.48
LBW	32	15	13
Communication Responses	95	88	7
Gross motor responses	98	92	6
Fine motor responses	95	61	34
Problem solving responses	98	92	6
Personal Social responses	93	86	7

Keywords: Hypospadias, Neurodevelopment

**OP-15 Evaluation of Psychiatric Comorbidity in Children with Hypospadias:
Preliminary Report**

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Aim of the Study: It was aimed to evaluate the psychopathologic states of children with hypospadias. **Methods:** A semi-structured diagnostic interview was conducted to children with hypospadias by a child and adolescent psychiatrist, Conners Parents Rating scale examining the areas where children have problems, Family Assessment Scale (FAS), Depression-Anxiety-Stress Scale (DASS-21) were applied to parents. **Main results:** There were 19 children in the study who had not have any other comorbidities. Mean age of the children was 10 years (6-17). In 14 children surgical treatment was fulfilled (73,6%). Among these children three had applied to psychiatry clinic previously (15,7%). Among nine children with psychiatric diagnosis (47,3%); six children were diagnosed with attention deficit and hyperactivity disorder, one was diagnosed with mental retardation, two were diagnosed with anxiety disorder and one was diagnosed with adjustment disorder. When the FAS and DASS-21 scores of the parents who were diagnosed with psychiatric disorders and who did not, there was no statistically significant difference. The presence of psychiatric disorders was not related with age (≤ 7 years, > 7 years), age at diagnosis of hypospadias ($1 \leq \text{year}$, > 1 year) and hypospadias treatment status. Children with psychopathologic diagnosis' were referred to the child and adolescent psychiatry clinic. **Conclusions:** This report evaluates the effects of hypospadias in childhood which is a very important period for cognitive, emotional and social development. It was concluded that there is a need for studies with higher number of patients and multidisciplinary approach rather than only evaluating the early and late surgical outcomes and also to find out the real cause that psychopathology symptoms are combined with hypospadias whether they are results of intrauterine pathology or reflecting symptoms of hypospadias surgery or the trauma that the disease cause.

Keywords: hypospadias, child, social development, psychopathology

OP-16 The Effect of Concomitant Dsd on the Success of Surgery in Penoscrotal Hypospadias Surgery

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Aim: Patients with severe proximal hypospadias are still challenging cases for pediatric urologists and at the worst end of this patient spectrum are patients with disorders of sex development (DSD). The aim of this study is to compare the complications of patients with and without DSD. **Material and method:** We retrospectively reviewed the data of patients who underwent penoscrotal hypospadias repair between 2012 and 2022. Demographics such as age at surgery, hypospadias type, repair technique, period between staged surgeries, complications were reviewed. Patients with missing data and the history of previous definitive surgery in a different center were excluded. **Results:** A total of 160 penoscrotal hypospadias patients, operated in our clinic were documented. Nine patients with missing data were excluded from the study. Patients were divided into two groups according to DSD: There were 55 patients in DSD group and 96 patients in non DSD group. 29% of DSD patients had recurrent surgeries, whereas 36% of patients without DSD had recurrent surgeries ($p=0.357$). There was no significant difference in the age at surgery in the patients of DSD and non-DSD groups. Dehiscence was observed in 9 (16%) patients in the DSD group, while dehiscence was 6 (6.3%) patients in the non-DSD group. This difference was statistically significant ($p<0.05$). There was no statistically significant difference in urethral fistula, urethral diverticulum, penile curvature and graft loss in two groups. **Conclusion:** In our series, dehiscence rates are significantly higher in DSD patients. Although the same reconstructive surgeries are performed in proximal hypospadias patients with or without DSD, this group of patients with DSD is a very special group with more risk of dehiscence. This information is also important for preoperative expectations of the surgeon and the parents.

Keywords: Penoscrotal hypospadias, DSD, Dehiscence, Complication

OP-17 Is Evaluation of Urinary Anomalies Necessary in Hypospadias Patients with Disorders of Sex Development?

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Aim: In hypospadias patients; it is known that as the severity of hypospadias worsens, accompanying anomalies increase. However, routine urinary ultrasound is not recommended in hypospadias patients according to guidelines. Disorders of sex development (DSD) comprise a heterogeneous group of congenital conditions associated with atypical development of internal and external genitalia. Our aim is to reveal the necessity of routine urinary ultrasound in the evaluation of DSD patients before urethral surgery. **Material and method:** In this study, patients with or without DSD who had undergone surgery for penoscrotal hypospadias (PH), between 2012-2022, were retrospectively analyzed accompanying urinary and other anomalies. Urinary ultrasounds, outpatient records, consultation notes and epicrisis of the patients were reviewed retrospectively. **Results:** 160 patients who were operated for PH were examined; 9 patients were excluded due to incomplete medical records. The data of 151 patients were analyzed. Fifty-five of the patients had a diagnosis of disorders of sex development. A significant difference was found in terms of accompanying anomalies between patients with-DSD and without-DSD who underwent PH repair ($p=0.001$) (Table 1). Cardiac anomalies, thyroid disorders, inguinal anomalies, intestinal atresia, and gonadal anomalies were found as accompanying anomalies. Urinary system evaluation results of 114 patients were obtained. Among these patients; there was no significant difference in urinary anomaly between patients with-DSD and without-DSD ($p=0.328$) (Table 2). **Conclusion:** USG evaluation is not recommended before hypospadias surgery according to the guidelines. In our series, no significant difference was found in terms of urinary system anomalies between patients with and without DSD who underwent surgery for severe hypospadias. However, a significant difference was found in terms of accompanying anomalies in DSD patients. In the evaluation of patients with DSD, preoperative evaluation should be done for associated anomalies. **Table 1:** Urinary anomalies in proximal hypospadias patients with and without DSD. These data were obtained from the records of 114 patients. **Table 2:** Accompanying anomalies in proximal hypospadias patients with and without DSD. **Keywords:** Disorders of sexual development, penoscrotal hypospadias, hypospadias, urinary anomalies,

Results: 160 patients who were operated for PH were examined; 9 patients were excluded due to incomplete medical records. The data of 151 patients were analyzed. Fifty-five of the patients had a diagnosis of disorders of sex development. A significant difference was found in terms of accompanying anomalies between with-DSD and without-DSD patients operated for PH ($p=0.001$) (Table 1). Cardiac anomalies, thyroid disorders, inguinal anomalies, intestinal atresia, and gonadal anomalies were found as accompanying anomalies. Urinary system evaluation results of 114 patients were obtained. Among all PH patients; there was no

significant difference in urinary anomaly between patients with-DSD and without-DSD ($p=0.328$).**

	DSD (+)	DSD (-)	
Urinary anomaly(-)	46	53	99
Urinary anomaly (+)	9	6	15
total	55	59	114

- *Table 1: Urinary anomalies in proximal hypospadias patients with and without DSD. These data were obtained from the records of 114 patients.

	DSD (+)	DSD (-)	
Accompanying anomaly(-)	18	59	77
Accompanying anomaly (+)	37	37	74
total	55	96	151

- **Table 2: Accompanying anomalies in proximal hypospadias patients with and without DSD.

Conclusion: USG evaluation is not recommended before hypospadias surgery in the guidelines. In DSD patients, pelvic ultrasound is recommended for the gonads before surgery. In our series, no significant difference was found in terms of urinary system anomalies between patients with and without DSD who had been operated for severe hypospadias. However, a significant difference was found in terms of accompanying anomalies in DSD patients. In the evaluation of patients with DSD, preoperative evaluation should be done for all systems.

Keywords: Disorders of sexual development, penoscrotal hypospadias, urinary anomalies,

OP-18 Comparative Study Between Autologous Platelet-Rich Fibrin Membrane and Local Flaps As Intervening Layer in Management of Hypospadias

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Background/Purpose:

Urethrocutaneous fistula is a frequent postoperative complication of hypospadias surgery (**Soyer et al., 2013**). The use of fibrin glue as an additional layer over the urethroplasty has been recently described and is associated with a significant decrease in the fistula rate (**Kajbafzadeh et al., 2011**). Despite the use of covering flaps in hypospadias surgery, it is still a matter of debate by some authors (**Sarhan et al., 2009**). Our study was conducted to evaluate the feasibility of using PRF for urethroplasty coverage with the goal of preventing fistula formation in hypospadias repair.

Patients and methods:

This is a prospective single-blinded randomized controlled trial including 60 cases of hypospadias admitted in the Pediatric Surgery department Mansoura University Children Hospital during the period from March 2021 to March 2023. These 60 cases were divided randomly into 2 equal groups; (group A platelet-rich fibrin coverage membrane & group B local flaps as additional layer). Both groups were compared regarding size of the 2nd layer, the success of repair, the size of the neomeatus, the presence of post-operative complications as urethral fistula, meatal stenosis, urethral stricture, diverticulum or failure of the repair.

Results:

Both groups were comparable regarding the age at time of operation, the type of hypospadias, the length of urethroplasty, and the width of the urethral plate. The mean size of the 2nd layer in **group A** was 24.3*13.2 mm (range 22*11-27*15 mm) and in **group B** was 24.5*14.2 mm (range 23*12-29*16 mm). The length of hospital stay in **group A** was 5.7 days (range 5-9 days) and in **group B** was 5.5 days (range 4-9 days). Failure of repair occurred in 2 case (6%) of **group A** versus 1 case (3%) of **group B**. The urethral fistula was detected in 3 cases of **group A** (10%) and similarly in 3 cases of **group B** (10%). The mean size of the neo-meatus in the **group A** was 2.7 mm (range 2-4 mm) and in **group B** was 3.3 mm (range 2-4 mm). No cases of urethral strictures were detected among cases of both groups during the period of follow up (mean 9 m, range 5-17 months).

Conclusion:

Platelet-rich fibrin sheet might be considered as an alternative coverage layer for distal hypospadias repair, especially in the absence of a healthy intermediate layer, with comparative outcome to traditional local flaps.

Keywords:

Hypospadias, Platelet-rich fibrin, Snodgrass, urethroplasty, urethral plate.

**OP-19 Trilayer Chitosan/pla Composite Scaffold for Urethral Reconstruction:
Evaluation of Mechanical, Biological, and Angiogenic Properties**

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Background: Hybrid scaffolds combining synthetic and natural biodegradable materials are a promising approach for the development of scaffolds for lower urinary tract reconstruction. **Methods:** In this study, hybrid scaffolds of chitosan and poly(lactic acid) (PLA) were fabricated by a sequential electrospinning process. The properties of the resulting chitosan/PLA/chitosan (CPC) scaffolds were evaluated in terms of the suitability of the scaffold for urethral tissue engineering. The physical and biological properties of the CPC scaffolds were evaluated in comparison to electrospun PLA scaffolds and acellular dermis (Alloderm), as controls for a synthetic and a natural scaffold, respectively. **Results:** Compared to the controls, the CPC scaffolds exhibited higher elastic modulus and ultimate tensile strength but lower extensibility. The suture retention strength of the CPC scaffolds was within the acceptable range for clinical use. The CPC scaffolds exhibited significant hydrophilicity, which was associated with a higher water absorption capacity of the chitosan nanofibers. The degradation products of CPC scaffolds did not exhibit cytotoxicity and promoted fibroblast wound closure in vitro. In addition, CPC scaffolds showed enhanced growth of human bladder smooth muscle cells and significantly higher angiogenic potential in a chicken embryo-based assay. **Conclusion:** Taken together, these results indicate that CPC hybrid scaffolds may offer significant advantages over conventional acellular or synthetic materials. CPC scaffolds are therefore promising candidates for urethral reconstruction in vivo.

Keywords: Tissue engineering; Urethral reconstruction; Hybrid scaffolds; Chitosan; Angiogenesis

OP-20 Study of Histological and Biochemical Changes in Penile Tissues Due to Tourniquet Application and/or Adrenaline Injection and their Effect on Short Term Complications of Hypospadias Surgery.

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Introduction: The effect of tourniquet and adrenaline on penile tissues during hypospadias repair remains a subject of debate. This study aimed to identify the changes in the histology and biochemistry of penile tissues post tourniquet application and adrenaline injection/local application. **Methods:** Biopsies of penile skin and penile dartos layer were taken in 42 boys during hypospadias surgery both before and after 30 mins of tourniquet or adrenaline use. Samples were sent to pathology to study histological changes like inflammation, capillary proliferation, hemorrhage, fibrosis, additional findings (congestion, edema, mast cell accumulation) and to biochemistry to find the tissue levels of malondialdehyde (MDA) which the marker of oxidative stress. Histology and the levels of MDA pre and post tourniquet/adrenaline application were compared. Patients were divided into 3 groups - tourniquet, adrenaline and combined (both tourniquet and adrenaline application). Other parameters compared were short term complications like infection, wound dehiscence, and urethral fistula formation. **Results:** The age of patients ranged from 2 -16yrs. 23 distal penile, 7 mid penile and 8 proximal penile hypospadias were included. 4 patients who had surgery for urethral fistula were also included. Tourniquet was used in 16 patients, adrenaline (local application-7 & injection-5) was used in 14 patients. Both tourniquet and adrenaline were used in 12 patients. Penile skin inflammation (13 in tourniquet, 9 in adrenaline and 10 in combined group), capillary proliferation (10 in tourniquet, 9 in adrenaline and 9 in combined group) and hemorrhage (9 in tourniquet, 8 in adrenaline and 10 in combined group) was seen respectively. Dartos layer inflammation (14 in tourniquet, 9 in adrenaline and 8 in combined group), capillary proliferation (8 in tourniquet, 8 in adrenaline and 11 in combined group) and hemorrhage (14 in tourniquet, 8 in adrenaline and 10 in combined group) was seen respectively. Mean MDA levels in penile skin pre and post tourniquet/adrenaline were 2.71 (range 0.62 to 5.81) and 8.93 (range 2.89 to 14.61) [p <0.001] respectively. Mean MDA levels in dartos layer were 1.67 (range 0.41 to 5.92) and 6.73 (range 1.87 to 15.07) [p<0.001] respectively. There was no difference between incidence of infection, urethral fistula formation and wound dehiscence among the 3 groups. **Conclusion:** Application of tourniquet and adrenaline has both histological and biochemical effects on penile skin and dartos layer. Adrenaline local application has fewer changes compared to only tourniquet or both tourniquet and adrenaline combined. However, these changes do not influence the incidence of early complications of hypospadias surgery.

Keywords: Penile tourniquet, adrenaline injection hypospadias, tissue ischemia

OP-21 The Effect of Penile Tourniquet and Continuous Artificial Erection on Penile Tissues: An Experimental Study

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INTRODUCTION It is known that penile tourniquet (PT) causes ischemic damage on erectile tissues that increases with longer durations. This study aims to investigate the effects of “continuous artificial erection” (CAE) technique on penile erectile tissues, in an experimental model. **MATERIAL AND METHODS** A total of 35 rats were randomized into 5 study groups. Twenty and forty minutes of PT alone (20T and 40T) or with CAE (20T&E and 40T&E) were applied in 4 experiment groups. CAE was achieved via continuous intracavernosal saline injection. Penectomy was performed 3 weeks after the procedures in the experiment groups and directly in the control group. Erectile tissue samples were evaluated via light microscopy and immunohistochemistry (eNOS, CD62E and ICAM-1 staining). One or two cases from each group were also investigated via transmission electron microscopy (TEM), as a preliminary study. **RESULTS** Highest histopathological scores for inflammation and fibrosis, and the most significant immunohistochemical findings of endothelial damage were seen in the 40T group. The 20T&E and 40T&E groups showed decreased degree of fibrosis and endothelial damage in comparison with the isolated PT groups. The 20T&E group revealed no evidence of fibrosis, and all of the endothelial markers were preserved in this group. Among the binary comparisons between experiment groups, most significant differences were found between the 20T&E and 40T groups. The preliminary TEM results showed reduced endothelial vesicles and widened subendothelial space in all groups, and connective tissue fiber undulations in T&E groups. **CONCLUSION** Findings of this experimental study support that continuous artificial erection via intracavernosal saline injection does not increase the erectile tissue damage that is already caused by PT, but rather decreases it. More detailed TEM studies are required for further investigation. **NOTE FROM THE AUTHORS:** THIS STUDY WAS PRESENTED AT THE 33RD ANNUAL EUROPEAN SOCIETY FOR PAEDIATRIC UROLOGY (ESPU) CONGRESS AT LISBON, PORTUGAL, APRIL 2023.

Keywords: Hypospadias, ischemia reperfusion injury, penile erection, tourniquet.

OP-22 Plate Objective Scoring Tool (Post); Correlation with Post-Hypospadias Repair Complications

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Objectives: The Plate Objective Scoring System (POST) has been shown to reflect the configuration of urethral plate quality in distal hypospadias, serving as an assessment guide. Here we aim to appraise its correlation with post-distal hypospadias repair complications. **Methods:** Data were prospectively obtained from prepubertal boys who underwent primary hypospadias repair between January 2020 and February 2023. Both POST and GMS scores were measured by three different reviewers in triplicate and correlation with post-distal hypospadias repair complications was evaluated. **Results:** The POST ratios were strongly correlated with post- hypospadias repair complications. POST score values mean was 1.10 (range 0.5–1.62). The average total GMS score was 5.29 ± 1.36 , and the medians of G, M, and S scores were 2, 2, and 1, respectively. Bivariate correlation analysis showed that the POST score was strongly accurate in predicting the chances of having complications, with a Pearson correlation coefficient of $r = 0.821$ (0.724–0.918) 95% CI. The cutoff value of POST with the highest specificity for the presence of post-operative complications was 1.2 and complications' incidence was 4.4% (2/45) in $POST \geq 1.2$ and 25 % (19/76) in $POST < 1.2$. **Conclusions:** This study highlights the significance of the POST index proportion as a surrogate sign for urethral plate quality for objectivity and accuracy in urethral plate evaluation, which in turn serves as an independent factor impacting outcomes in distal hypospadias repair. We demonstrated a statistically significant increase in the likelihood of any postoperative complication with a decrease in the total POST score.

Keywords: Hypospadias; urethral plate; phenotype; objective stratification; complications

OP-23 Evaluating the Effectiveness of Glans-Urethral Meatus Shaft (Gms) Scoring in Children with Hypospadias

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INTRODUCTION AND OBJECTIVE: In this study, the efficacy of Glans-urethral Meatus Shaft (GMS) scoring was assessed in children who presented to our clinic and underwent surgical treatment for the first time after receiving a diagnosis of hypospadias. Its effects on preoperative decision-making, postoperative clinical outcomes, and the predictability of potential complications were assessed. **MATERIALS AND METHODS:** The research was initiated with the approval decision of 02.03.2022 and protocol no. 2022/25 local ethical committee of our institution. The study was conducted with 44 cases who met the criteria diagnosed with hypospadias in our clinic between 2022 and 2023. After obtaining informed consent, data such as GMS scores, age, preoperatively topical dihydrotestosterone (Andractim gel®) usage status, planned operative procedure, contact information, operative duration, applied tourniquet duration, complication status, and follow-up period were prospectively recorded. **RESULTS:** The mean age of the cases was 52.14 ± 36.01 months. The mean total GMS score was 6.66. The complication rate was determined to be 27.30%. It was observed that as the GMS score increased, the number of cases with complications also increased. The complication rate was %4.50 in cases with GMS scores of 3-6, 80% in cases with GMS scores of 10–12. The urethral plate width and glans width did not have a significant effect on the complication rate ($p = 0.2$ and $p = 0.12$, respectively). The urethral plate width to the glans width ratio and high GMS scoring were identified as risk factors for the presence of complications. **CONCLUSION:** It has been found that GMS scoring is a useful tool for preoperative decision-making, educating parents about the disease, and assessing postoperative results. It may be routinely used throughout daily practice and shouldn't be disregarded in the thorough examination of cases.

Keywords: Hypospadias, Complications, Children, Scoring Methods, Urethra, Fistula, Patient Outcome Assessment, Grade

OP-24 Urethral Stents in Hypospadias Surgery: Perspectives and Challenges Among Turkish Surgeons

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Aim: Hypospadias surgery constitutes a significant component of pediatric surgical and pediatric urological practice. There are several ongoing debates about its surgery including the operative technique, the sutures or stents used and postoperative care. The aim of this study is to explore the preferences and the perspective of surgeons in Turkey regarding the technical aspects of hypospadias surgery, as well as the challenges they encounter. **Methods:** An online survey comprising 15 questions about common surgical practice, use of stent, knowledge of stent properties and the common technical problems was distributed among pediatric surgeons and pediatric urologists in Turkey. **Results:** A total of 102 with 37% of participants being specialists over 20 years of experience, and hypospadias surgery accounting for 57% of their clinical practice. More than half of the surgeons used stents and the majority keep it for 5-6 days. Sixty one percent of the surgeons reported having knowledge about the biocompatibility and structural properties of the stents they used. The most common two technical problems with the stents were kinking (27%) and obstruction (41%). Nineteen percent of surgeons claimed to have developed their own solutions for the technical problems they encounter. Additionally, majority of the surgeons expressed the need for learning about the structural properties and solution suggestions to the technical problems (97%). **Conclusion:** Stent-related technical problems are common during hypospadias surgery. This national survey highlights the need for improved solutions for technical problems in hypospadias surgery. Collaboration with each other and the biomedical engineers can offer a new perspective leading to enhanced knowledge among surgeons and the development of more effective solutions

Keywords: hypospadias, material, stent, technical, urethral

OP-25 Our Experience of Using Suprapubic Cystostomy for Urine Diversion in the Patients with Distal Hypospadias.

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Objective Hypospadias has become one of the most widespread conditions in pediatric urology, and numerous procedures have been described for its correction. There are also various methods for urine diversion in the postoperative period. In this study, we evaluated our experience with different urine diversion techniques in distal hypospadias using the one-stage tubularized incised plate (TIP) urethroplasty. Materials and Methods We retrospectively reviewed 256 boys with hypospadias between 2018 and June 2022, with an average age of 3 years or younger. All patients underwent one-stage hypospadias correction. The patients were divided into two groups based on the method of urine diversion: urethral catheter (8 Ch) Nelaton catheter (in Group 1) and suprapubic cystostomy (9 Ch) combined with placement of an (8 Ch) urethral stent in the pendulous urethra in (Group 2). Functional and cosmetic outcomes were assessed at 1 month, 6 months, and 1 year postoperatively. Univariate analysis was performed to identify variables that may serve as independent predictors of postoperative complications. Results The average age of the patients was 1.8 years (ranging from 10 months to 3 years). All patients had distal hypospadias. Group 1 underwent surgery from 2018 to 2020 (96 patients), while Group 2 underwent surgery from 2020 to 2022 (160 patients). The majority of complications was observed in (Group 1) (32%). Most patients had satisfactory cosmetic and functional outcomes. Complications included fistulas, meatal stenosis, and urethral dehiscence. In Group 1, fistulas occurred in 25 patients (25%), urethral dehiscence in 4 patients (4%), and meatal stenosis in 3 patients (3%). In (Group 2), complications were only in the form of fistulas, occurring in 16 patients (10%). Conclusion Based on the analysis of these data, it can be concluded that urine diversion using suprapubic cystostomy combined with a stent in the pendulous urethra helps reduce the likelihood of postoperative complications by more than 20%.

Keywords: tubularized incised plate (TIP) urethroplasty, suprapubic cystostomy

OP-26 The Urethral Stenting Maximum for 3 Days in Distal Hypospadias

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The rate of complications has been reported between 5-33% in distal hypospadias. This study investigated the relationship between surgical technique, stent duration for a maximum of 3 days, and complications in patients who underwent distal hypospadias repair. Methods: Digital records of 466 patients with distal hypospadias who applied to our clinic between 2011-2022 were evaluated. Of these patients, TIPU was performed in 313 patients, MAGPI in 92, and urethral advancement operation in 21 patients. Patients who underwent other surgical techniques were not included in the study. A feeding tube (8 Fr) fixed to the glans with a suture was used as a urethral stent in TIPU. The urethral stent was kept for 3 days. No stent was placed in the patients who underwent MAGPI and urethral advancement. Postoperative complications were evaluated. Results: The complications differed depending on the surgical technique. Postoperative meatal stenosis was observed in 12 patients (3,8%), fistula in 6 (1,9%), and hematoma in 1 (0,3%) out of 313 patients who underwent TIPU. A meatal retraction was observed in 5 (5,4%) of 92 patients who underwent MAGPI, meatal retraction was observed in 4 (19%) out of 21 patients who had urethral advancement, and fistula was observed in 1 patient (4.7%). Conclusion: There are publications suggesting that the catheter should be kept for 1 week or longer in patients undergoing TIPU in distal hypospadias. Our study may suggest that keeping the stent for more than 3 days is not needed to get low complication rates. The meatal retraction was significantly observed in patients followed up without a stent, but we assume that this complication is not due to having a stent or not and it is mainly related to the preferences and technique.

Keywords: Distal Hypospadias, TIPU, Urethral stent, complication, MAGPI, Urethral advancement

OP-27 Comparative Study Between Early and Delayed Removal of Urethral Stent After Tubularised Incised Plate Urethroplasty in Distal Hypospadias

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Urethral stent is very popular in hypospadias repair in order to permit the repair to be water tight, immobilize the suture line, tamponade any hemorrhage and avoid the risk of urinary retention. However, some pediatric surgeons don't prefer to leave urethral stents for long time, and remove it early to avoid complications such as inflicting pain, bladder spasm and infection. This study aimed to compare the early and delayed removal of urethral stent in the repair of distal hypospadias regarding hospital stay and the incidence of postoperative complications. The study included 42 patients with distal hypospadias repaired by the tubularized incised plate technique. They were divided randomly into 2 groups; where the urethral catheters were assessed for early removal after 48 hours in group A, and they were removed on the 5th postoperative day in group B. Both groups were compared regarding the hospital stay and the incidence of postoperative complications. The study revealed that Early removal of urethral stent after repair of distal hypospadias is applicable in the majority of cases with significantly shorter hospital stay and without increase in the incidence of postoperative complications.

Keywords: Hypospadias, Urethral stent, Early removal, Hospital stay, Fistula

OP-28 Safety of Latex Urinary Catheters for The Short Time Drainage in Hypospadias Surgery

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Background: In this study, we attempt to identify the most appropriate catheter (silicone vs. latex) for short-term urinary catheterization. We compared the post-operative clinico-pathological complications between latex and silicone for short term catheterization in rabbits with hypospadias. **Materials and Methods:** Forty rabbits were used in our study to compare complications of catheterization. They were divided in two groups. Hypospadias like defect was created by a 1 cm long excision of the ventral urethra. For urethroplasty, we used tubularized incised plate technique. Latex and silicon catheters were used in groups 1 and 2, respectively. Post-operatively, routine laboratory urine test and complications (allergy, infection, bleeding) were compared in groups. **Results:** A total of 40 rabbits underwent hypospadias repair. Findings showed that there were no significant differences between groups based on urine test indices ($P = NS$). Urinary tract infection rate was 10% (2 rabbits) in latex and 0% in silicone groups ($P = NS$). There were no significant differences between groups regarding of cystitis grades between study groups ($P = NS$). **Conclusion:** It seems that urinary tract catheterization with latex catheters is a safe, feasible, and in-expensive procedure for short-term post-operative course in hypospadias surgery in patients without latex hypersensitivity.

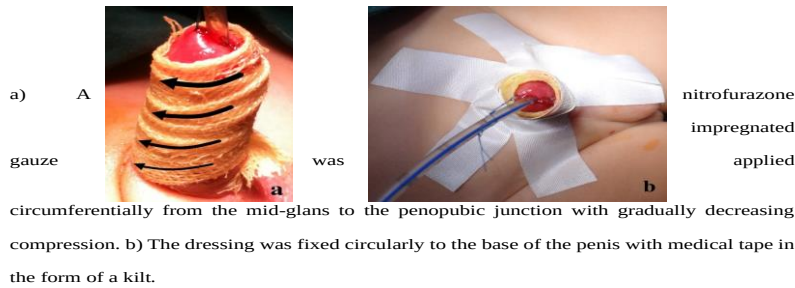
Keywords: Latex, Urethroplasty, Complications

OP-29 A Simple and Effective Method for Hypospadias Repair Dressing Using Nitrofurazone-Impregnated Gauze

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Purpose: Dressing following hypospadias repair is controversial. The aim of this study was to describe a simple, affordable dressing technique using nitrofurazone- impregnated gauze (NIG) and to demonstrate its effectiveness with negative aspects. **Materials & Methods:** One type of dressing method using nitrofurazone-impregnated gauze was implemented for all type hypospadias repairs, conducted between March 1993 and 2021 by a single pediatric surgeon, which included extensive dissection and/or urethral tube creation. The results were evaluated in terms of complications such as wound infection, dehiscence, surgical inflammation, bleeding, allergy, stenosis, fistula, spontaneous catheter dislodgement and postoperative home care. Patient data collected within the scope of the study were analyzed with the IBM Statistical Package for the Social Sciences (SPSS) program. **Results:** In total, 542 paediatric patients with hypospadias and chordee without hypospadias were operated on by a single surgeon using different surgical repair techniques; the same dressing method was implemented. Dressing application, removal, and changes were performed by the same surgeon. The dressings were removed without anesthesia. Of the 542 patients, 127 (23.4%) received postoperative care in the outpatient setting. Postoperative bleeding occurred in 5% of patients. Wound infections, dehiscence, and edema were not detected. Disadvantages include adhesion to the wound and a requirement for re-dressing due to bleeding in severe cases. **Conclusion:** Our results suggest that the NIG dressing is simple, effective, easy to apply and remove, inexpensive for hypospadias surgery and can be applied and followed up by a single surgeon in either an inpatient or outpatient setting. To prevent postoperative bleeding in patients undergoing severe repairs, a more effective dressing method can be considered. **Keywords:** hypospadias; dressing; nitrofurazone-impregnated gauze; wound; complications a) A nitrofurazone impregnated gauze was applied circumferentially from the mid-glans to the penopubic junction with gradually decreasing compression. b) The dressing was fixed circularly to the base of the penis with medical tape in the form of a kilt.



Anahtar Kelimeler: hypospadias; dressing; nitrofurazone-impregnated gauze; wound; complications

OP-30 22 Years Experience of Proximal Hypospadias Surgery at a Single Center

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Aim: The operation for the proximal form of hypospadias is more difficult, and complications are more likely. In this investigation, instances of proximal hypospadias treated at our clinic were retrospectively examined, and the surgical methods and outcomes were collected and presented. It was intended for searching at how challenges developed, if patients need additional surgery after the initial procedure, and what affects the present structure of the penile tissue. **Methods:** The study included 134 patients suffering from proximal hypospadias who underwent primary reparative surgery between 2001 and 2023 and followed up for at least 6 months postoperatively. The patients who received two-staged Bracka repair were followed up with following the second surgery. **Results:** External urethral meatal localization was penoscrotal in 81 patients (60.4%), scrotal in 41 patients (30.6%), and perineal in 12 patients (9%). Preoperative testosterone was used in 67.3% of the patients. The mean age of surgery was 15 (27.9 ± 34.7) months. Two-stage Bracka repair in 104 patients (77.6%), Duckett repair in 22 patients (16.4%), Koyanagi repair in 4 patients (3%), Snodgrass urethroplasty in 4 patients (3%) were performed. As graft tissue, preputium in 96 patients (71.6%), buccal mucosa in 8 patients (6%), post-auricular tissue in 1 patient (0.8%), both preputium and buccal mucosa in 3 patients (2.2%), both preputium and post-auricular tissue in 1 patient (0.8%) were used. In 25 patients (18.6%), a preputial island flap was used. Various complications such as abnormal meatal location, fistula, urethral stricture, residual chordee, and diverticulum developed in 97 patients (72.4%) in the post-operative period. Additional surgery was required in 81 (60.5%) of all patients. Eventually, 95 patients (70.9%) had acceptable and normal results in terms of penile cosmetics, meatal location, chordee and urinary flow, while 39 patients (29.1%) had various problems. No factor that had a statistically significant effect on complication, need for additional surgery and acceptable final penile status could be determined. **Conclusions:** Proximal hypospadias is a very serious and complicated pathology, and the development of complications and the need for corrective surgery may be frequent. However, when the right techniques are used, the result is mostly satisfactory.

Keywords: proximal hypospadias, bracka, duckett, buccal mucosa, preputium, preputial island flap

OP-31 Proximal Hypospadias with Severe Chordee: Midterm Follow Up After the Tale Procedure

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¹ Sana Klinikum Offenbach

Purpose: To evaluate patients with proximal hypospadias with severe chordee for recurrence of curvature and complications. **Materials and methods:** 126 patients with proximal hypospadias and severe chordee had staged repair between 2014 and 2021. All patients were operated by the same surgeon using the same surgical technique. The severe curvature was corrected in the first stage using the TALE- (Tunica Albuginea longitudinal excision) technique. Eighty six patients underwent two stage BILAB-Technique (Bilateral based flaps). Forty children underwent chordee excision as well as distal urethroplasty (CEDU) technique during the first stage. The Thiersch principle was used to complete the urethroplasty during the second stage. Mean age of patients during the first repair was 13,4 months. The second stage repair was performed 4 to 6 months later. All patients maintained regular follow up for at least 3 years. Children were followed up for recurrence of chordee and complications including fistula, glandular dehiscence, recurrence, stricture and diverticulum. The mean follow up was 5 years (range 3 - 9 years). **Results:** 110 patients had satisfactory results. Sixteen children (12.7%) developed 41 complications. Mild chordee (less than 15 degrees) was reported in 5 patients (4%). Glans dehiscence developed in 16 children (12.7%). Eleven patients were operated upon for fistula (8.7%). Diverticulum developed in 7 children (5.5%). Two children developed meatal stenosis requiring surgery (1.5%). **Conclusion:** The TALE technique is an effective technique for correction of severe chordee with low recurrence in midterm follow up. Patients with small glans (indicating penile hypoplasia) seem to be associated with glans recurrence as well as several other complications. Long term follow up is necessary after hypospadias repair to detect late complication.

Keywords: Hypospadias;, Chordee; complications; follow up, two stage; urethroplasty

OP-32 Proximal Hypospadias Without Severe Chordee; Mid-Term Outcome of Lateral Based Onlay Flap

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Purpose: To present the long Term outcome of the Lateral Based Onlay technique (LABO) for patients with proximal hypospadias without severe chordee over the past 9 years. **Material and Methods:** Between February 2014 and June 2021, 110 Patients with proximal hypospadias underwent the LABO Technique. 106 children maintained regular follow up of 2 years at least. Patient age at operation ranged between 3 month and 3 years (mean 13 month, median 11 month), all had proximal hypospadias with flat glans and without severe chordee that required division of the urethral plate . Follow-up period ranged from 2 to 9 years (mean 45 month, median 46 month). Correction of chordee and neo-urethral reconstruction using the lateral penile and preputial skin was performed in a single operation using the LABO technique. Foreskin reconstruction or circumcision was performed 6 months later. **Results & Mid-Term follow up:** Very Satisfactory results with slit-like meatus and good stream of urine and no chordee were obtained in 77 patients available for follow up (70%). Major complications requiring urethroplasty occurred in 5 patients (8%) (3 wound dehiscence and 2 diverticula). Other complications requiring minor 3rd surgery occurred in 24 patients (22%). These include 11 fistula, meatal stenosis 8, glans dehiscence 3, smegma mass 2, rotation 1, BXO 1. **Conclusion:** Mid-term follow up of the LABO technique shows very satisfactory results in 70% of the patients. Nevertheless, the mid-term follow up complication rate of 30% is higher than in our first evaluation of patients operated on between 2004 and 2010.

Keywords: proximal hypospadias outcome lateral based onlay flap (LABO)

OP-33 Long Term Results of Three Different Techniques Used in Penoscrotal Hypospadias Repair

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Aim Of The Study The aim of hypospadias surgery is to improve the cosmetic appearance as well as the postoperative urine flow. Some authors prefer two-stage repair while others advocate single-stage to achieve better functional and cosmetic outcomes. We aimed to discuss the long term results of three different techniques (Duckett, Snodgrass and Bracka) in penoscrotal hypospadias. **Methods** Sixtyeight patients with penoscrotal hypospadias between 2012-2022 were evaluated retrospectively. To evaluate the anatomical success of surgical techniques, an objective scoring system (HOPE) was used as well as the type and frequency of postoperative complications. In order to evaluate functional success, uroflowmetric examination was performed in patients without fistula (n=47). Voiding Disorder Symptom Score (VDSS) was used to all patients to compare voiding disorders. **Results** In our study we found that the two-stage operation is more advantageous in terms of stenosis development and repair of chordee. (Table-2) Also it was determined that the two-stage operation, which has become widely used in our clinic in the last 10 years, especially the complication rates of separation and stenosis has decreased in the last 5 years. (Table-3) However, the HOPE score, in which the final anatomical appearance of the penis was evaluated, was found to be similar for all techniques(p=0,444). (Table-1) In the uroflowmetric examination applied for functional evaluation, only PVR was found to be high after Snodgrass(p=0,03). There was no statistical difference between the other uroflowmetric parameters and VDSS (p=0,865). (Table-1). The mean Qmax values of all groups were above the 5 percentile according to the Miskolc normogram. **Conclusion** According to our study, the two-stage operation is a safer technique in terms of preventing the development of stenosis and eliminating chordee. As surgeon experience increases, there is a significant decrease in the number of complications.

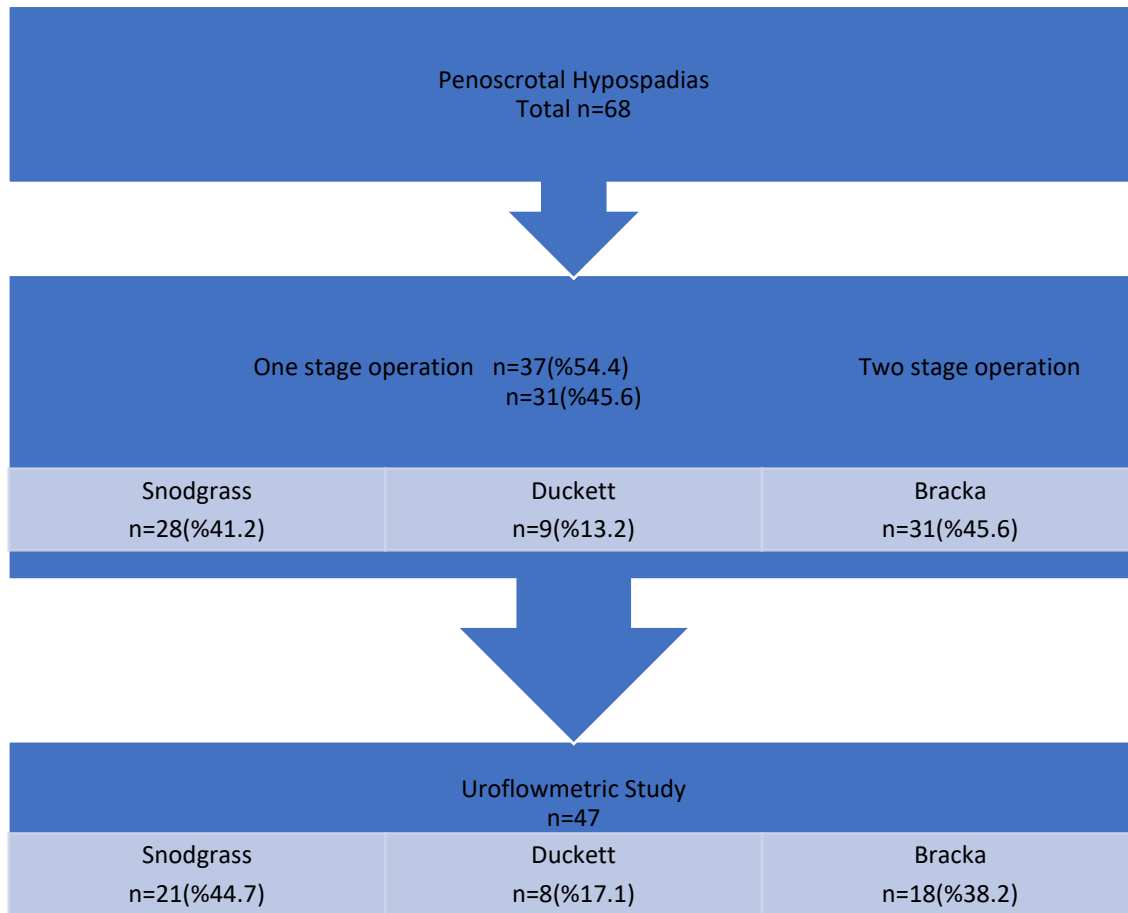


Table 1: Mean of patient age, uroflow findings and score of HOPE and VDSS of the operation groups

		TIPU	Duckett	Bracka	X ²	p
		Ort.±SS (Min.-Max.)	Ort.±SS (Min.-Max.)	Ort.±SS (Min.-Max.)		
Age of operation		3,21±2,06 (1-9)	4±4,36 (1-14)	4,1±3,33 (1-12)	0,401	0,818
Qmax		14,91±10,19 (5,8-47,3)	11,08±3,51 (5,3-16,2)	12,51±7,21 (2,9-33,2)	0,761	0,684
Qav		4,97±2,71 (2,2-13,6)	3,78±1,71 (1,1-6,9)	4,72±2,51 (0,7-11,3)	1,285	0,526
Vvolume		275,72±200,8 (59-898)	194,63±61,26 (114-272)	200,14±104,45 (28-396)	1,587	0,452
Vtime		44,11±25,17 (7-90)	38,13±20 (15-71)	37,62±28,19 (11-144)	1,370	0,504
Reach Qmax		13,94±7,64 (2-31)	16±9,32 (6-34)	20,1±16,2 (4-66)	0,724	0,696
PVR (ml)		51,28±27,81 (12-116)	35,56±32,58 (6-110)	28,38±20,22 (0-80)	6,557	0,038
Curve type	Bell	11 61,1	3 37,5	10 47,6	1,423	0,501
	Plateau	7 38,9	5 62,5	11 52,4		
VDSS		5,61±4,46 (0-15)	6,25±7,83 (1-25)	5±3,8 (0-13)	0,290	0,865
HOPE score		39,17±7,92 (25-54)	40±4,44 (34-48)	36,73±7,65 (24-53)	1,624	0,444

Table 2: Comparison of complication rates between operating techniques

	TIPU		Duckett		Bracka		X ²	p
	n	%	n	%	n	%		
Total dehiscence (Redouretrophlasty)	5	17.9	5	55.6	10	32.3	4,739	0,089
Glanduler dehiscence	5	17.9	2	22.2	7	22.6	0,370	0,920
Fistula	12	42.9	3	33.3	6	19.4	3,874	0,132
Stenosis	20	71.4	7	77.8	8	25.8	15,058	0,001
Persistan chordee	8	28.6	3	33.3	2	6.5	6,423	0,032
Diverticulum	0	0	3	33.3	0	0	10,695	0,002

Table 3: Comparison of BRACKA technique in terms of complications in the first 5 and last 5 years

	Bracka Technique				X ²	p
	First 5 years (n=12)		Last 5 years (n=19)			
	n	%	n	%		
Total dehiscence (Redouretrophlasty)	7	58,3	3	15,8	6,092	0,021
Glanduler dehiscence	2	16,7	5	26,3	0,392	0,676
Fistula	2	16,7	4	21,1	0,091	1,000
Stenosis	5	41,7	3	15,8	2,572	0,206
Persistan chordee	1	8,3	1	5,3	0,115	1,000

Keywords: penoscrotal hypospadias, uroflowmetry, snodgrass, bracka

OP-34 How Effectively Do We Correct Curvature In Proximal Hypospadias? – A Comprehensive Single Institution Review.

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1 Children's Hospital Of Philadelphia

Management of ventral curvature remains variable, often dictated by surgeon preference and experience. We report our comprehensive single institution experience with ventral curvature correction in patients with proximal hypospadias. We hypothesize that overall recurrence of curvature is low regardless of technique chosen, however significant differences in ventral length gained and complication exist between the various techniques. We retrospectively reviewed our prospective surgical hypospadias registry for patients who underwent primary proximal hypospadias repair from 2016-2022. We collected information on patient age, meatal location and degree of chordee before and after degloving, preoperative and post-operative measurements of ventral penile length, procedure type, and duration of follow-up. We analyzed the incidence of recurrent curvature amongst the various techniques. In total, 191 patients underwent primary proximal hypospadias repair, 22 were single stage procedures. 141 patients required ventral lengthening with a single corporotomy and grafting including 82 TV grafts, 57 dermal grafts and 2 SIS grafts. 45 (32%) of these patients also required dorsal plication with median follow-up of 2 years (Table 1). 50 (25%) patients did not require a ventral lengthening procedure for curvature correction and had median follow-up of 1.7 years. (Table 2). Median ventral curvature prior to incision and post-degloving was 90 and 42.5 degrees in the ventral lengthening patients versus 45 and 20 degrees in the non-ventral lengthening patients, respectively. Median ventral length gained after corporoplasty with ventral lengthening procedure was 18mm compared to 11.5mm in those that did not undergo ventral lengthening. Incidence of recurrent curvature was 4% overall, 2% for TV graft, 2% DG graft, 0% SIS and 4% for no ventral lengthening. Overall, we found that ventral curvature is successfully corrected in 96% of patients undergoing primary proximal hypospadias repair. The use of a single ventral corporotomy with grafting in patients with corporal disproportion and severe ventral penile curvature is an effective procedure with a low rate of curvature recurrence. Although we have a high degree of success to date, selecting appropriate techniques to correct ventral penile curvature will require continued follow up into puberty to verify outcomes.

Table 1:. Patient characteristics of proximal hypospadias repairs with ventral lengthening.

Characteristics	<u>Total</u>	<u>Tunica Vaginalis Graft</u>	<u>Dermal Graft</u>	<u>SIS</u>
N	141	82	57	2
Median Age (years)	0.8	0.8	0.9	0.6
Median Follow-up (years)	2.2	1.9	2.6	1.9
Median Degrees of Ventral Curvature prior to incision	90	90	90	-
Median Degrees of Ventral Curvature post degloving	42.5	45	42.5	-
Ventral Lengthening with Dorsal Plication (%)	45 (32%)	30 (38%)	15 (26%)	0 (0%)
<u>Meatal Location:</u>				
Proximal Shaft	20	11	8	1
Penoscrotal	82	48	34	0
Scrotal	29	19	9	1
Perineal	10	4	6	0
Median Ventral length gained (mm)	18	20	16	18
Patients with Recurrent Curvature (%)	6 (4%)	3 (2%)	3 (2%)	0 (0%)

Table 2:. Patient characteristics of proximal hypospadias repairs without ventral lengthening.

Characteristics	<u>Total</u>	<u>Degloving</u> <u>Only</u>	<u>Dorsal</u> <u>Plication</u>	<u>Fairy Cuts</u>	<u>Transection</u> <u>of Urethral</u> <u>Plate</u>
N	50	18	24	2	21
Median Age (years)	0.8	0.8	0.8	0.8	0.8
Median Follow-up (years)	1.7	1.8	1.7	4.4	1.7
Procedure Type					
Single Stage (%)	19 (38%)	12 (67%)	6 (25%)	0 (0%)	1 (5%)
Multistage (%)	31 (62%)	6 (67%)	18 (75%)	2 (100%)	20 (95%)
Median Degrees of Ventral Curvature prior to incision	45	35	50	75	45
Median Degrees of Ventral Curvature post degloving	20	-	20	25	20
<u>Meatal Location:</u>					
Proximal Shaft	21	7	11	1	8
Penoscrotal	22	10	9	1	9
Scrotal	6	1	3	0	3
Perineal	1	0	1	0	1
Median Ventral length gained (mm)	11.5	15.5	13.5	11	14
Patients with Recurrent Curvature (%)	2* (4%)	1 (2%)	1 (2%)	0 (0%)	1 (2%)
*First patient - single stage repair with degloving only which was complicated by fistula and persistent chordee repaired with dorsal plication, second patient underwent a staged repair with transection of urethral plate and dorsal plication but required degloving to release scar and penoscrotal webbing at second stage.					

Keywords: Proximal hypospadias, Ventral Curvature correction

OP-35 Topical Corticosteroids and Upwards Massage to the Ventral Grafted Side of the Penis Between Bracka Hypospadias Repair Stages 1 and 2 Reduces Recurrent Curvature

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Aim: Ventral penile curvature often accompanies severe hypospadias and pose a recurrence risk after repair. We postulated that myofibroblastic activity in the repair site can be cause of recurrent curvature so we adopted a strategy to overcome this since 2017. We instruct patients to apply an upward massage to the ventral side of the penis using a topical corticosteroid ointment between the two stages of Bracka repair. The aim of this study is to assess the impact of this intervention on recurrence of curvature after surgery. **Methods:** A retrospective review of medical records for all patients undergoing Bracka repair for hypospadias between January 2009 – May 2023 by a single senior surgeon was conducted. Patients were divided into two groups as receiving and not receiving steroid treatment and complication rates were compared. In the steroid group, parents applied Betnovate® 0.1% (betamethasone valerate) ointment twice daily with an upward massage to the ventral side of the penis starting from the post-operative second week of the Bracka stage 1 operation until the second stage. The primary outcome was the recurrence of curvature (during the second stage and at long-term) with secondary outcomes including dehiscence and fistula formation. **Results:** The review included a total of 60 patients (median age: 14 months, [5-171]) who underwent Bracka repair for hypospadias with 40 in the steroid group and 20 in the control group. The mean curvature degrees on admission were similar (91 and 89 degrees respectively, $p>.05$). The steroid group, compared to the control group had a significantly smaller mean degree of curvature both at the second stage operation (17 vs. 26 degrees, $p=.04$) and during long-term follow-up (15 vs. 25 degrees, $p=.03$). There were no steroid related complications, and no significant difference among incidences of dehiscence and fistula formation between groups ($p>.05$). **Conclusion:** Our findings suggest that the application of a topical corticosteroid ointment with upward massage to the ventral graft site between stages 1 and 2 of Bracka hypospadias repair may reduce the recurrence of curvature, both during the second stage of repair and at long-term follow-up.

Keywords: Hypospadias, Bracka, Curvature, Corticosteroids, Massage

OP-36 Can Penile Curvature be Treated Without Corporotomy During Proximal Hypospadias Repair in Patients With Severe Chordee?

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Aim: Persistent curvature is an unpleasant and challenging complication of proximal hypospadias (PH) surgery. A number of interventions as dorsal plication, ventral release and corporotomy are described in the literature. Purpose of this study is to evaluate the efficacy of the ventral release approach. **Material and Methods:** Medical records of patients have undergone staged PH repair between 2012 and 2022 were analyzed retrospectively. Patients with missing data and the history of single-stage surgery were excluded. Patients' demographics, use of neo- adjuvant hormonotherapy, surgical procedures, complications and postoperative persistent curvature were evaluated. All the patients completed neo-adjuvant IV testosterone or topical dihydrotestosterone therapy 3 months prior to the surgery. Severe ventral chordee release technique was preferred over corporotomy in total of them. **Results:** In total, 160 PH patients were operated in our clinic between 2012 and 2022. Nine patients with incomplete records and 34 patients have undergone single-stage repair were excluded from the study. Out of 117 patients met the inclusion criterion, 43 of them were with disorders of sex development (DSD). Demographics of proximal hypospadias patients with and without DSD were similar. Median age at surgery was 35.3 (6-213) months. The median duration between two stages of surgery was 11,2 (5-43) months. Total release of ventral chordee was performed with further dissection and excision of ventral fibrotic tissue. Persistent chordee was observed in 3 (2,6%) of the patients. According to the literature, recurrent ventral curvature was reported about 3-44% of patients with PH after surgery as it is approximately 2-3% with corporotomy technique. Limited adult studies pointed the association between previous corporotomy and sexual dysfunction. **Conclusion:** Our study presented that ventral release approach is an effective approach for ventral curvature correction during staged PH repair.

Keywords: Chordee, Ventral curvature, Proximal Hypospadias, Corporotomy

OP-37 We Don'T Talk About Complications! An Appraisal of Complication Disclosure in Institutional Hypospadias Leaflets

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Aim of the study: Hypospadias surgery complications are a key concern for hypospadiologists. Numerous technical modifications are reported each year in pursuit of better outcomes and less complications. This is often not related adequately to parents of children with hypospadias. We aimed to study the objectivity of disclosing hypospadias complications in institutional patient information leaflets (PILs) **Materials & Methods:** The search term ‘hypospadias parent information’ was searched on the most popular search engine Google (<http://www.google.com>). Results of the search query were collected on 15 th March 2023. Paid advertisements, news articles, and forum posts were excluded. Only official patient information leaflets (PIL) from medical institutions were included. The search was limited to the English language. The PILs were analysed regarding discussing the option of avoiding surgery, objectively disclosing complications, type of complications disclosed, surgical technique, perioperative experience, and long-term outcomes. **Results:** A total of 120 search results were found using the search engine, of which 46 met inclusion criteria. The PILs were produced by institutions in 5 countries (USA, Canada, UK, New Zealand, and Australia). 39% (18/46) discussed the option of avoiding surgery in mild hypospadias. 52 % disclosed the likelihood of complications but only 4 % (2/46) of the reviewed institutional publications objectively provided numerical date of complication rates after surgery. 72% (33/46) described the Perioperative experience including catheter and dressing care. Table 1 summarises the rate of disclosure of specific complications. There was no statistically significant difference between secondary and tertiary care institutions ($p=0.4$). There was no statistically significant difference between different countries ($p=0.6$) **Conclusion:** Disclosure of complications is low in institutional PILs with the majority not reporting objective data. Prospective recording of complications is advised to help institutions provide accurate data of clinical outcomes. This may facilitate preoperative counselling and decision making by parents.

Table 1 the rate of disclosure of specific complications

Complication disclosure	(Number of PILs) %
Urethrocutaneous fistula	(23/46) 50%
Glans dehiscence	(6/46) 13%
Urethral stricture	(9/46) 19.5%
Meatal stenosis	(13/46) 28%
Redo surgery	(5/46) 11%
Long term outcome	(2/46) 4%

Keywords: Hypospadias, Complications

OP-38 Hypospadias Complications; A Plan Of Managment

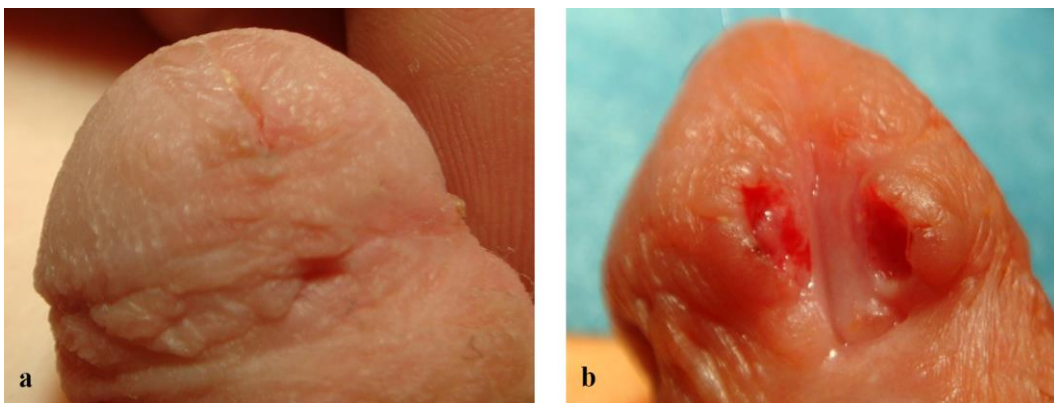
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Purpose: To analyze patients referred with hypospadias complications following hypospadias repair and present a plan of management in a tertiary referral center. **Materials & Methods:** Between January 2003 and December 2020, 921 patients were referred with complications following hypospadias repair. Among those, 653 patients maintained follow up more than two year. Patients were classified into 5 groups: Group 1 patients, presented with persistent dysuria (241), Group 2 presented with recurrent fistula (243), patients in Group 3 had wound dehiscence (131), two patients presented diverticulum due to stenosis (Group 4). Thirty six patients in Group 5 had extensive scarring and penile curvature associated with stenosis and/or fistula. The mean age at surgical correction was 3.5 years (range 1-18). The complications were corrected using 1 of 6 techniques: urethral advancement (46), Slit-like Adjusted Mathieu (SLAM) (404), lateral based onlay flap (LABO) (122), Thiersch Duplay (33), Chordee Excision and Distal Urethroplasty” (CEDU) (12) and two stage buccal mucosal grafts (36). The mean follow-up was 54 months (range 1-18 years). **Results:** The failed hypospadias repair was corrected with a single procedure in 524 (80%). 28 patients (4%) underwent a planned two stage repair and 101 patients (16%) required 237 procedures to complete the repair. **Conclusions:** Careful patient selection is necessary to achieve good outcome with any surgical technique. Urethral stricture was the commonest complication encountered in the study population. Fistula following Tubularized Incised Plate (TIP) procedure recurred frequently after simple closure and required incision of the narrow urethra and reconstruction of a wider new urethra. Vascularized skin flaps were the first choice and gave excellent results.

Keywords: hypospadias; urethra; penis; tubularized incised plate; complications



Patient presenting with recurrent fistula after closure. **(a)** Persistent fistula associated with distal stenosis. **(b)** The stenosed neo-urethra was incised and it shows that the incised urethral plate has healed as a linear scar resulting in a urethral stricture and not just meatal stenosis

OP-39 Mathieu Urethroplasty as a Salvage Procedure in Cripple and Severe Hypospadias

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INTRODUCTION: In spite of improvements in hypospadias surgery complications are still an important concern. The management of complications is also challenging. Mathieu urethroplasty is evaluated as a salvage procedure for cripple hypospadias and severe penoscrotal and perineal hypospadias cases. **PATIENTS AND METHODS:** Among 674 hypospadias patients, Mathieu urethroplasty is performed as a salvage procedure in 15 cripple cases and as a component of staged repair in 6 severe cases. The state of ventral penile skin, length of penile shaft and presence of chordee are evaluated prior to surgical procedure. **RESULTS:** The mean age of the patients were 6,38. The meatal location was midpenile and distal in all patients. The ventral skin did not cause any difficulty during surgery. The flap length was between 1-2,5 cm. Surgical technique was not different from primary repairs except several modifications. The base of the flap is prepared wider to support the blood supply and the flap is constituted thicker to support the suture lines with subcutaneous tissue as described by Kass. Additionally neourethra is covered with a well vascularized adjacent available tissue flap to support the strength and blood supply of flap. There were no functional complications detected during mean follow up of 4,7 years. The appearances of glans were broad, but no dehiscence occurred. **CONCLUSION:** Mathieu urethroplasty as a salvage procedure in hypospadias surgery is feasible with several modifications. Complications such as fistula, stenosis and dehiscence are low and functionality is acceptable.

Keywords: cripple hypospadias, mathieu urethroplasty, salvage

OP-40 Two Stage Cedu Technique, a Good Alternative for Severe Hypospadias

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Introduction: Correction of hypospadias moved from two-stage repair in the 1960s to one-stage repair in the 1980s, then back to two-stage repair in the 2000s. In 2008, Ahmed Hadidi published his famous technique CEDU (Chordee Excision-Distal Urethroplasty). The aim of this presentation is to evaluate this newly described technique for the management of severe hypospadias. **Patients and methods:** Between January 2019 and January 2023, the CEDU technique was performed in 26 patients with severe hypospadias. The files of the 26 patients who maintained regular follow-up were reviewed. The principle of the technique is to excise the hypoplastic urethral plate, the atrophied spongy body and the longitudinal layer of the tunica albuginea, split the glans on the midline and reconstruct a healthy urethral plate using preputial and lateral skin flaps to the tip of the glans. A distal urethroplasty was performed, leaving 1 cm at the proximal end, which was reconstructed 3 to 6 months later. Patients ranged in age from 2 to 7 years (mean 4 years). In this series, 16 patients had perineal hypospadias and 10 patients had scrotal hypospadias. Severe curvature of the penis was present in all patients. Follow-up ranged from 6 to 60 months (mean 36). A transurethral Silastic catheter was inserted for 7 days. Three months later, the remaining 1 cm of the new urethra was reconstructed and final adjustment of the glans and prepuce was performed. **Results:** Satisfactory results were obtained in 21 patients (80.79%). Three children presented with glans dehiscence which was corrected in the second stage, one child developed a fistula after the second operation and one child developed a diverticulum. The fistula and diverticulum were successfully corrected in the third operation. **Discussion** In this series, it was necessary to divide the urethral plate and excise the hypoplastic corpus spongiosum and the outer longitudinal layer of the tunica albuginea to correct the associated deep chordate. The lateral skin flaps are doubly irrigated by the base of the penis and the preputial vessels. This natural urinary diversion enables early removal of the catheter, reduces patient discomfort and allows the new urethra to heal without urinary irritation for 3 months. A long-term follow-up of 15 years is required to objectively evaluate the technique. **Conclusions:** The CEDU technique diverts urine from the urethroplasty site for 3 months without a catheter. It reduces hospital stay and patient discomfort. It gives satisfactory results and has become our technique of choice for severe hypospadias.

Keywords: Severe hypospadias, CEDU

OP-41 Comparison of the Single-Stage and Staged Correction of Proximal Hypospadias

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Objective: There are only a few studies comparing single stage or staged procedures with severe proximal hypospadias. The purpose of our study was to review our results in severe proximal hypospadias over a 20-year period, to analyze and compare our experience of single stage and staged procedures. **Material and Methods:** We retrospectively reviewed the records of consecutive patients referred for treatment of penoscrotal hypospadias between 2000 and 2020. Penoscrotal hypospadias was defined based on a penoscrotal meatal position at the beginning of the urethroplasty. A total of 71 children comprised our study population, of whom 35 underwent a single stage repair (between May 2000- May 2009 by combining the Duckett and Thiersch-Duplay techniques) and 36 underwent an staged repair (between 2010-2020 Bracka or STAG). **Results:** Mean patient age at surgery was 17 months (range 9 to 91) for single stage procedures and 19.1 months (11 to 57) for staged procedures. In the short term, a proximal anastomotic stricture was observed in 3 cases (8.8%). In the long-term, there was no new anastomotic stricture observed. In the first evaluation, a diverticulum was noted in 1 case (2.9%), however, in the second evaluation, one more diverticula was noted and the diverticulum rate increased to 5.8%. Two patients (5.9%) were diagnosed with persistent chordee on long-term follow-up and 4 patients (11.8%) complained of short penile length. Erection and ejaculatory function was normal in 16 cases who reached adolescence. **Conclusion:** In the long-term evaluation, 61.8% of the cases did not show any complications. However, 38.2 % of the cases required reoperation. Various complications such as short penile length and chordee that were not seen in the short-term follow-up were noted in longterm follow-up. It is suggested that patients with severe proximal hypospadias should be followed up for cosmetic problems and potential penile curvature, diverticula and late fistula complications.

Keywords: Proximal hypospadias, Long-term outcome, single stage, staged operation

OP-42 Chordee without Hypospadias: 5 Patients with 5 Procedures

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CWH is a relatively rare entity and its management remains controversial and variable. We describe the clinical course of 5 children with CWH that were managed by 5 different procedures. Case 1: VD revealed a healthy urethra and AE was straight. A MC was done to correct the short ventral skin. Case 2: A feeding tube revealed thin glans and distal urethra. VD revealed a thin urethra to the mid penile level, AE 80degree curvature at the transition from thin to healthy urethra. After division of the urethra at the corona and elevation into healthy urethra, AE straight. The foreskin was used a graft for a planned two stage procedure. Case 3: Appeared to be penoscrotal fusion but VD and AE revealed 45 degree curvature. The glans and entire urethra appeared healthy. Elevation of the urethra and repeat AE only reduced curvature to 40 degrees. Three corporotomies were done under the intact elevated urethra and covered with dartos. Foreskin was preserved as backup. He returned with persistent curvature. At the second surgery after VD the AE was straight. A MC allowed more skin to be brought ventrally. Case 4: VD revealed a thinner but preservable distal half of urethra. AE 45 degrees which persisted after elevation of the urethra which appeared like a ‘bowstring’. Division of the urethra at the junction of the healthy and thinner urethra made the ends spring apart and could not be reapproximated. AE still 30degrees. Three corporotomies were done and covered with dartos. No graft was placed and the skin closed in preparation for a three stage repair. Case 5: Assumed penoscrotal web and had two attempts at correction, which included a MC. He returned with curvature. VD revealed 45 degree curvature with a thinner but preservable distal urethra. Division at this point left a residual 35 degree curvature. Three corporotomies and skin closed in preparation for a three stage procedure. A BMG was used to bridge the gap between the two urethrostomies at the second stage due to absence of foreskin.





Keywords: Chordee without hypospadias (CWH) Ventral devolving (VD) Artificial erection (AE) Modified circumcision (MC) Buccal mucosal graft (BMG)

POSTER PRESENTATIONS

PP-04 Gud Technique in Hypospadias Redos: An Value Alternative to Distal Fistulas and Glans Deiscense

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Introduction: Distal hypospadias failures normally present with coronal or subcoronal fistulas or glans dehiscences. Considering that tissue may present scars and fibrosis, many authors suggest inlay grafts in one or 2 stages. We, differently, believe that GUD technique with entire glans deconstruction and minor urethral mobilization is the most effective approach. We want to review our data.

Methods: We have reviewed all cases operated as redos in our institution with the GUD technique since 2018. Patients were evaluated for age, type of complication (fistula/dehiscence) quality of glans, mobility of urethra and distal penile skin, number of previous surgeries and previous failed techniques.

Results: We found thirty-six patients treated as secondary repair, presenting with an urethral fistula (n=28, 77.7%) or distal penile meatus (n=8, 22.3%). TIP repair was the predominant primary surgery (n=30, 83.3%) and mean age at surgery was 2.2 years (1.3 to 9). None patients had fixed or non mobile distal urethra on physical exam and glans was mostly well healed and had a non obstructive distal urethra to a 8 Fr catheter (27/30). Fistula was punctiform in 20 and large in 10 patients. Mean previous surgery was 1.3 per patient (1-3). Patients had an uneventful outcome and surgery was effective in 37 cases (97.3%), one patient had partial glans dehiscence and healed spontaneously. Mean follow-up is 21.4 months.

Conclusion: The GUD technique is an excellent alternative for distal fistula repair (coronal/subcoronal/distal penile) and redos. It has the advantage of avoiding grafts and to rely on the patient's healing of suture lines in pre-assessed tissue.

Keywords: Distal hypospadias, hypospadias repair complication

PP-05 A Noval Dorsal Meatoplasty Method for Resistant Meatal Stenosis After Distal Hypospadias Surgery

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INTRODUCTION: Meatal stenosis is a common complication after hypospadias surgery especially after operations in which the urethral plate is incised. In this study, an alternative noval method of meatoplasty for the treatment of resistant meatal stenosis is presented. **MATERIAL and METHODS:** A total of 8 cases with resistant meatal stenosis after TIPU operation were included in this study. Resistant meatal stenosis was diagnosed as the patients who underwent urethral dilatation for at least 3-8 times and did not show any improvement in voiding videos. In our dorsal meatoplasty method, initially a vertical incision from the distal half of the glans penis is performed. The scarred spongiosum tissue were evacuated from dorsal part of the glans by carefully preserving the urethral epithelium. Later, the incision was closed by the Heineke Mickulicz method. Post operative follow up examinations were performed at 10th day, 1, 3 and 6 months, and 1 year. Successful outcome of dorsal meatoplasty method were defined as no need for dilatation for a period of at least 6 months in the controls and who had straight stream that contains flare in the voiding videos. **RESULTS:** The mean age of the patients was 3.5 years. The mean number of dilatations for meatal stenosis before meatoplasty was 4. The mean interval period between the first and the dorsal meatoplasty operation was 15 months. In all our cases tourniquet was used for bleeding control. In all patients large candle flame voiding was observed in the control examinations after dorsal meatoplasty. In 7 patients there was no need for further dilatation for a minimum of 6 months and maximum 2 years at follow-up examinations. In 1 patient recurrent stenosis that required further dilation was observed at the 3rd month follow up examination. When we investigate the operation notes of the relapsed patient in detail, we realized that the bleeding could not be controlled by the tourniquet and bipolar cautery was necessary during the excision of the scarred spongiosum tissue. **CONCLUSION:** The cosmetic and functional early and medium-term outcome of the noval dorsal meatoplasty method were found to be successful in the treatment of

Keywords: HYPOSPADIAS, MEATAL STENOSIS, MEATOPLASTY

PP-06 Y-V Versus Magpi in Repair of Distal Hypospadias

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Background: The aim of this study is to compare between Meatal Advancement and Glanuloplasty (MAGPI) technique and Y-V technique in the treatment of distal hypospadias (glanular and coronal) and to evaluate the outcome of both techniques as regard incidence of complications and postoperative meatal site and shape.

Methods: The study included 100 patients with distal hypospadias in the time period from July 2014 to July 2016 who were divided into two groups: group A included 50 patients who underwent MAGPI operation and group B included 50 patients who underwent Y-V repair. All cases were evaluated for operative time, complications, and postoperative site and shape of the meatus.

Results: There was no significant difference in operative time of both groups ($P=0.227$). The incidence of postoperative complications was 8% in group (A) versus 4% in group (B). The meatus was found within normal distal glanular position in 46 patients (92%) in group (A) versus 49 cases (98%) in group (B) with no statistically significant difference on comparison ($P=0.169$). All successfully operated Y-V cases (96%) had vertical slit like meatus. On the other hand, all successfully operated MAGPI cases (92%) had transverse or rounded meatus ($P<0.001$). 77.8% of coronal cases that underwent MAGPI had a postoperative distal glanular meatus versus 95.8% of Y-V cases.

Conclusions: The Y-V repair is an excellent option for correction of glanular and coronal hypospadias with good cosmetic outcome and low incidence of complications. It can solve the drawbacks of meatal recession and poor cosmetic outcome regarding the shape of the meatus after MAGPI operation especially in coronal cases.

Key words: Hypospadias, MAGPI, Y-V repair.

**PP-09 Evaluation of Factors Affecting Meatal and Urethral Diameter Post Tip: A
Randomized Controlled Trial**

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Introduction

Tubularized incised plate Urethroplasty (TIP or Snodgrass technique), along more than two decades, is considered the standard technique for management of distal hypospadias. Moreover, proximal cases without chordee and redo cases with supple urethral plate can be managed by TIP. However, indications, contraindications, method of healing and other issues about TIP still controversial.

Purpose

The aim of this study is to evaluate meatal and urethral diameter post TIP and correlate results with the confounding factors.

Methods

A randomized controlled trial including 80 patients with hypospadias operated by TIP. Patients were randomized into 2 groups (A) & (b). Group (A) undergo regular postoperative dilatation, group (B) without dilatation. Site of the original meatus, depth of the urethral plate, pre and post-incisional width of the plate as well as postoperative dilatation are confounding factors registered for each case and correlated with the outcome. Cases were evaluated after 6 weeks by office calibration, after 6 months by calibration under anesthesia and urethrocystoscopy.

Results

Both Groups were matched regarding age and other confounding factors. Complications were reported in 19 patients (23.75%): 7 patients with meatal stenosis (8.75%) and 12 (15%) patients with urethro-cutaneous fistula, 6 of them were associated with variable degrees of glanular dehiscence. Cystoscopy done after 6 months showed re-epithelialized without scarring in 97.5% of patients with no urethral stricture. Majority of complications occurred in group (B), but difference was only statistically significant for meatal stenosis (P -value = 0.01). Narrow plate (Post-incisional width < 13mm) was also strongly associated with meatal stenosis (P -value = 0.01). Binary logistic regression showed that supposed association between meatal stenosis and non-dilatation was false (P value=0.15), while narrow plate was truly associated with meatal stenosis (P value=.049) (aOR=8.7).

Conclusion

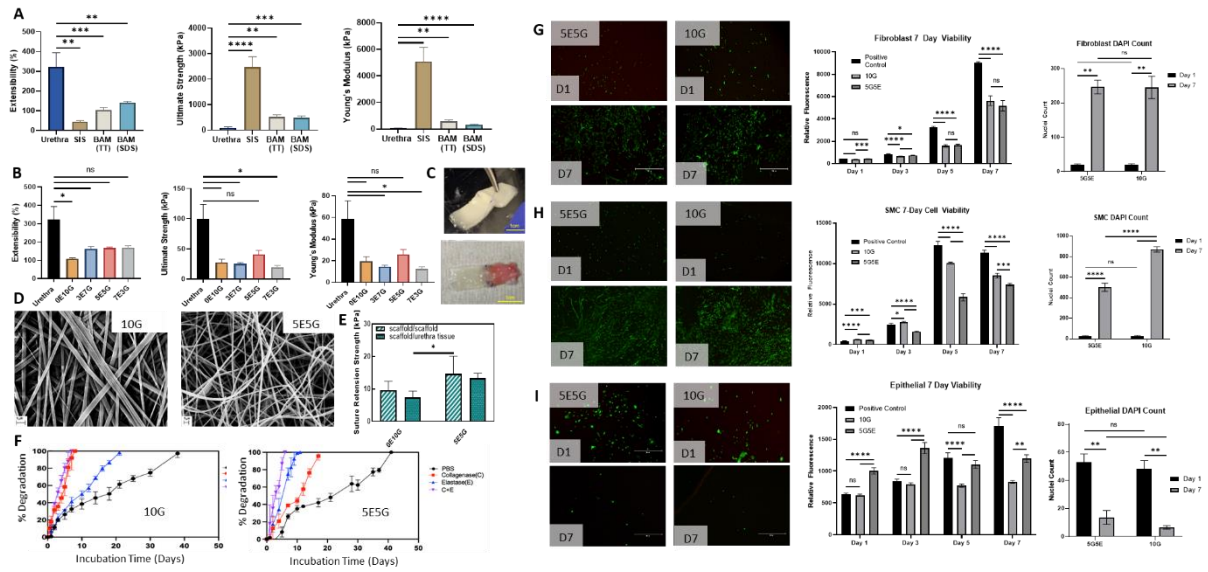
Urethral dilatation is equivocal and not necessary after TIP. Narrow plate is the main risk factor stands behind complications and still considered as a challenge for future research about hypospadias.

Keywords: Hypospadias - TIP – Meatal Stenosis – Narrow Plate

PP-10 Engineering a Highly Elastic Scaffold for Urethral Application

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Background: Penile reconstructive techniques that rely on the apposition of two tissues with vastly differing mechanical properties can decrease return of function and increase the risk of short- and long-term complications in this physiologically dynamic organ. The aims of this study were 1) to compare decellularized matrices to urethral tissue and 2) to engineer a novel biomimetic, biocompatible scaffold that reproduces key mechanical properties of healthy urethral tissue. **Methods:** Hybrid nanofibrous scaffolds were synthesized by electrospinning two naturally derived polymers in random orientation onto a mat: gelatin methacryloyl (GelMA) and elastin-like peptide (ELP). Scaffolds were characterized using NMR spectroscopy, degradation, swelling, tensile and suture testing, and light and scanning electron microscopy. Comparison tensile testing occurred using 1-ply Cook Biodesign small intestinal submucosa, porcine bladder acellular matrix using two protocols (triton-trypsin or SDS-based), and male (4-5mo) New Zealand White rabbit anterior urethra. Onex104 cells/mL human bladder-derived urothelial, smooth muscle cells, or neonatal fibroblasts (ATCC) were seeded onto 1cm² candidate scaffolds. Cell viability, adhesion/spreading, cytotoxicity and proliferation were evaluated at day 1 to 7 endpoints. T-tests were used for pairwise comparisons; one-way ANOVA for between-group differences. **Results:** Urethral tissue exhibits remarkable elasticity, whereas acellular matrices are stiffer and stronger substrates (A). 5% GelMA/5% ELP achieved tensile modulus and ultimate tensile strength in static (B) and cyclic testing (not shown) that did not significantly differ from the anterior urethra. Scaffolds were suturable, with improved performance in suture tensile testing with the addition of ELP (C, E). Excellent cell viability was observed from day 1 to 7 across cell lines and scaffolds. While proliferation and spreading of fibroblasts (G) and SMCs (H) was robust, urothelium (I) demonstrated less scaffold adherence and proliferation than the other cell lines. **Conclusion:** Highly elastic biomimetic scaffolds can be created that mimic the tensile properties of urethral tissue using GelMA/ELP. Future scaffold modifications are ongoing to target urothelial proliferation, and to further define in vitro and in vivo effects of the proposed biomaterials. In the future, highly elastic scaffolds may provide an alternative tissue source for proximal hypospadias repairs.



Tissue and scaffold characterization. A) Tensile properties of urethra and acellular matrices B) Tensile properties of urethra and engineered scaffolds C) Suture illustration D) SEM of select scaffolds E) Suture testing F) Degradation in saline vs select enzymes G-I) Cell live-dead staining/viability and counts (fluorescent microscopy, fibroblasts, smooth muscle and urothelial cells respectively)

Keywords: Tissue Engineering, Urethral reconstruction, Proximal hypospadias

PP-12 Pre-Operative Testosterone Injection Before 2-Stage Repair of Severe Hypospadias Improves Penile Biometry and Reduces Glans Dehiscence

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Purpose To compare the outcomes of 2-stage repair of severe hypospadias with the selective use of preoperative testosterone stimulation (PHS) in patients with small glans width. **Methods** Children with severe hypospadias and chordee >30degree were divided into 2 groups based on the initial glans width. Group 1 (initial glans width <12mm) received 2 doses of intramuscular testosterone injections before surgery. Group 2 had initial glans width 12mm or more and did not receive PHS. All children underwent 2-stage Byars operation with division of urethral plate to correct the chordee in stage 1. The result of PHS on glans width in group 1 and the outcomes of surgery were studied in both groups. **Results** Seventy-four children operated by a single surgeon were included, of whom 44 (59%) with small glans ($p<0.001$) received PHS (group 1). A posterior meatal location was significantly associated with a small glans (86% vs 42%, $p=0.0002$) and associated undescended testis (UDT, $p=0.031$). In 37/44 (84%) patients, there was a significant increase ($p<0.001$) in glans width after PHS (responders), with the final glans width comparable with group 2 ($p=0.313$). In 7/44 (16%) patients, there was no significant increase in glans width after PHS (non-responders). At a median follow-up of 18 months, 2-stage Byars operation had 86% success, with 8% reoperation rate. There was no difference in success ($p=0.940$) or complications ($p=0.804$) between both the groups. The PHS non-responders with small glans had significantly higher glans dehiscence rate (28%) than those children with larger glans (3%, $p=0.004$). Sixteen children (21%) also had undescended testis (UDT); a nonpalpable UDT was associated with significantly higher risk of karyotype abnormality (60% vs 0%, $p=0.004$). **Conclusions** The use of PHS in selected cases of severe hypospadias before 2-stage Byars operation resulted in significantly increased glans width without any increase in the complication rate. A small glans increased the risk of glans dehiscence. The 2-stage Byars operation seems to be a good option for repair of severe hypospadias, with good success and acceptable complications. Karyotyping in severe hypospadias may be reserved for those with associated nonpalpable UDT.

Group 1 vs Group 2	P value
Incidence	<0.001
Posterior meatal location	0.0002
Associated UDT	0.031
Success	0.94
Complications	0.804

Keywords: Testosterone injection, severe hypospadias, 2 stage hypospadias repair

PP-13 Method of Fixation of The Glans Penis During Surgical Operations for Hypospadias in Children

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Objective: To assess the impact of the method of fixation of the glans penis on postoperative complications. **Materials and Methods:** A retrospective analysis of the medical histories of 155 patients, aged 6 and older, who underwent surgery at the Republican Specialized Applied Research Center of Pediatrics from 2015 to 2023, was conducted. During the operations, absorbable surgical sutures PDS 5-0, 6-0 were used; and urethral catheter was installed for 5-8 days. The following were performed: glanular – in 45 patients; distal penile – in 59 patients; midshaft – in 22 patients; proximal penile – in 20 patients. In 80% of cases, the TIP operation was performed. In 10% of cases two-stage (Bracka) operation was performed, with the rest 10% being the Mathieu operation. The standard fixation of the glans penis involves suturing the glans penis at its apex. Our technique of glans penis fixation takes into account the axis of the urethra, eversion meatoplasty of the artificial meatus with a fixing first nodal suture on the neourethra. It was used in 88 cases, and the standard one - in 67 cases. **Results:** Patients, who underwent surgery using the standard technique with suturing of the glans penis in the postoperative period had a slight curvature of the penis in 9 (13.4%) cases, skin-urethral fistulas - in 13 (19.4%) cases and meatal stenosis - in 8 (11.9%) cases. With the everting fixing suture on the glans penis the following were observed: slight curvature of the penis in 2 (2.2%) children; skin-urethral fistula in 9 (10.2%) children; meatal stenosis in 4 (4.5%) children. **Conclusion:** The cosmetic indicators improve after using this method of fixation of the glans penis compared to children operated with the standard technique. This is associated with the straightening of the urethral plate due to the fixing meatal everting sutures. Correction of the neomeatus with everting sutures on the glans penis eliminates the decrease in urine flow, reduces the degree of deviation of the stream direction from the axis of the penis, thereby allowing to reduce hydrodynamic disturbances in the area of the anastomosis of the hypospadiac urethra.

Keywords: Glans penis fixation Hypospadias Postoperative complications

PP-15 Impact of Catheter Type on Early and Late Complications in Patients with Distal Hypospadias

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Aim: The aim of this study was to investigate the impact of catheter type on early and late complications in patients with distal hypospadias. **Methods:** We examined patients who underwent surgery for distal hypospadias at our clinic between 2021 and 2023. Hospital records were reviewed retrospectively for data including patient demographics, surgical details, and complications. Patients who underwent surgery with multiple-sessions, fistula repair only, or were discharged without a catheter were excluded from the study. The patients were divided into 2 groups as the urethral catheter group and the trans-vesical catheter group. **Results:** A total of 159 patients were included in the study. Among these patients, 116 were catheterized with a urethral catheter, while 43 had a trans-vesical catheter. Groups were homogenous in terms of age (mean age 38 vs 55 months respectively, $p=0.079$), operation duration (median duration 83 ± 27 vs 92 ± 23 minutes respectively, $p=0.060$) or presence of chordee (9/116 vs 8/43, $p=0.079$). Patients with trans-vesical catheters were mostly discharged on the same day of the operation (53.5%), while most of the patients with urethral catheter were hospitalized for longer (92.1%) ($p<0.001$). Postoperative infection occurred in two patients in the urethral catheter group, but there was no significant difference ($p=1.000$). Among the early complications, catheter occlusion (30.2%) was more common with trans-vesical catheters, while catheter dislocation (15.5%), painful voiding (4.3%), and difficulty in voiding (4.3%) were observed with urethral catheters. There was also no significant difference between the groups in terms of long-term complications such as meatal stenosis ($p=0.392$), fistula formation ($p=0.625$), or redo surgery ($p=0.760$). **Conclusion:** Our results showed that catheter type changed the type of early postoperative problems but did not change complications. Patients with urethral catheters were hospitalized longer which may be attributed to difficulties with urination, or concerns about catheter displacement or monitoring the urine output.

Keywords: distal hypospadias, urethral catheter, trans-vesical catheter, complications

PP-18 Adult Gender Dysphoria of a Case of Operated Severe Hypospadias

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Introduction: The term "gender dysphoria" refers to the "distress" that a person has as a result of the discrepancy between their assigned gender and how they identify or express their gender. In this study, a patient with gender dysphoria who had undergone many penoscrotal hypospadias operations after reaching adulthood was presented. **Case:** T.M.A. is a 21-year-old patient who was assigned ambiguous genitalia at birth. Following the patient's birth, chromosomal analysis revealed that the patient had a 46,XY normal diploid male karyotype. He had growth hormone therapy for a short period of time. One-staged urethroplasty were performed at the age of 3 in an another clinic. However, our patient was referred to us at the age of 6 because the urethroplasty line had completely opened up during the follow-ups. This patient with penoscrotal hypospadias and left cryptorchidism underwent Bracka two-staged surgery, as well as orchiopexy surgery, 15 years ago in our center. During the follow-up, problems such diverticula, fistula, urethral stricture, residual chordee and abnormal meatal position were noted. We carried out revision procedures like diverticulum excision, residual chordee repair, re-do urethroplasty and dilatation. The patient's HOPE score is 49. The external urethral meatus is located at the glandular level. The glans and skin of the penile appear nearly normal. Urinary flow is typical. The patient claims he has chosen to change his gender, though. The following was revealed during the patient's interviews with the psychiatry department. He used to constantly feel that he was trapped in the wrong body. He claims that he despises his masculine body, facial beard and body's hair. He claims although he doesn't care if he has a penis, he want to use a penis lock device to non-surgically reduce its size. He emphasizes his sexual orientation is beyond social acceptance. **Conclusion:** Eventually, issues with gender perception are also becoming more prevalent in the developing world, despite the fact that hypospadias is well known to be the cause of or a companion to many psychiatric issues. Multidisciplinary council decisions, challenging surgical procedures, and surgical targets for success are likely to be called into question years from now.

Keywords: adult gender dysphoria, penoscrotal hypospadias

PP-19 Wider Angle of Dangle in Proximal Hypospadias: A Neglected Feature of the Anomaly that Compromises the Outcome

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Aim: A straight erection of the penis and being able to urinate standing up are important outcome measures for hypospadias surgery. Several techniques are used to straighten the curvature of the corporal body but none of the current techniques can correct the abnormal angle between pubis and penile body. We observed that this angle of dangle (AoD) is wider for proximal hypospadias cases even resembling the angle in female fetus in some severe cases. The aim of this study was to evaluate the AoD in pediatric hypospadias cases and compare it between proximal and distal ones. **Material and Methods** The intraoperative lateral images of cases with hypospadias between the years 2015-2022 were evaluated retrospectively. Images taken from appropriate angle during artificial erection test after degloving and chordee correction were included. Artificial erection was performed with intracavernosal instillation of saline without penile tourniquet and corporal finger compression. Images which involved any intervention to the penis that might interfere with AoD were excluded. The AoD between the penile body and the pubic plane was measured with the acquired images. AoD was compared between distal and proximal cases. **Results** The study included 68 patients; 31 (45.6%) were proximal and 37 (54.4%) were distal hypospadias cases. AoD (penopubic angle in full artificial erection) was 100.160 ± 14.40 degrees for the proximal and 90.30 ± 11.20 for the distal cases. The difference was statistically significant ($p=0.02$). **Discussion and Conclusion** There are few reports in the literature that attempt to describe the abnormal anatomy in hypospadias, despite the abundance of suggested novel techniques and methods related to surgical correction of hypospadias. There are factors that compromise aiming a normal penis in hypospadias surgery and we can't develop solutions by ignoring them. Wide AoD is one of them, and this is the first study to document that feature of hypospadias which is worsened by the degree of anomaly. Our results showed a statistically significant difference in angle of dangle between proximal and distal hypospadias cases. Because of ethical reasons, we could not collect data related to AoD on erection from normal boys. However, our results show that even

Keywords: penil curvature, hypospadias surgery, penil erection angle

PP-20 Correction of Curvature in Single Stage Hypospadias Repair with Foreskin Reconstruction

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Aim Foreskin reconstruction (FR) has increased in popularity and is requested by parents of boys with hypospadias. The presence of significant curvature and the technique used to correct it can limit the feasibility of FR. We present a step-by-step video of the technique of curvature correction in single stage hypospadias repair with foreskin reconstruction through a ventral skin incision only. **Methodology** A ventral incision was made along the interface between the inner and outer prepuce and around the meatus. This was followed by ventral degloving only down to the penoscrotal junction. An artificial erection test was performed to confirm straightness of the penis using a 21G butterfly needle injecting normal saline via the glans. A small finger goniometer was used to assess the angle of curvature and 30 degrees of curvature were noted. The ventral dissection was extended laterally around the corporal bodies to access the dorsal midline for placement of dorsal midline plication sutures, without making an incision in the dorsal prepuce. Two dorsal midline plications (Baskin) were used to correct curvature. Straightness was confirmed with a repeat erection test. Glans wings were then developed, and a deep TIP incision was made down to the corpora. Subepithelial urethroplasty was then performed with a continuous 7-0 polydioxanone suture (PDS). Urethroplasty was covered with a ventral dartos barrier layer. Glansplasty was performed in two layers with 6-0 PDS. FR was carried out in three layers (inner prepuce, dartos and outer prepuce skin) with interrupted 6-0 PDS. Easy retractability of the reconstructed foreskin was confirmed at the end of the procedure. An 8Fr dripping stent and compression foam dressing were used for seven days. **Results** Catheter and dressing were removed on post-operative day seven, with good post operative appearance. Parents were instructed to not attempt retraction of the foreskin for six weeks. **Conclusion** Correction of penile curvature of 30 degrees or less is technically feasible through a ventral incision only at the time of single stage hypospadias repair with FR.

Keywords: Hypospadias, Curvature, Chordee, Foreskin Reconstruction, Video

PP-21 Hypospadias Stage I Repair: To Quilt or Not To Quilt?

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Peno-scrotal hypospadias accounts for 25% of all cases worldwide. The only treatment option is surgical, and it is quite challenging with variable post-operative outcomes. Multiple procedures have been described in literature. We find the Bracka's two staged repair to be a safe and reliable procedure that can be performed for almost all types of proximal hypospadias. The preputial skin is moist, robust and pliable. It has minimal tendency for hair growth and takes easily, which makes it the ideal graft. As originally described by Bracka, we do not quilt the graft to the underlying corporal bodies. We share the results of no midline quilting and our data from the last ten years (2014-2023). Our experience with no quilting of the preputial graft in Stage I repair for proximal hypospadias indicates that the surgical outcome is favourable. Along with the indirect advantage of lesser operative time, the graft heals as a smooth and flat plate which is an important pre-requisite for a successful second stage repair.

Keywords: Two stage repair, preputial skin graft, penoscrotal hypospadias

PP-22 Two-Stage Repair of Proximal Hypospadias Using Free Preputial Graft- Lessons Learnt

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Introduction Presentation of the results, complications and lessons learnt of a pilot cohort of patients with proximal hypospadias operated on with a two-stage technique using a preputial graft. **Methods** Retrospective analysis of operative protocols of a single surgeon, photographs and postoperative medical records with a focus on complications and their possible causes. The results were processed using basic statistical methods in Microsoft Excel. **Results** From 2017 to 2021, we operated on 46 patients with proximal hypospadias (peno-scrotal, scrotal, and perineal), 19 of whom were excluded because they were reoperations after other urologists, and included 27 native hypospadias patients who presented for at least one follow-up minimum 6 months after the second stage of surgery. Nine of the 27 patients required at least one reoperation (33%) for the following complications: infection and scarring of the preputial graft after the first stage 1 time, stricture of the neo-meatus or transition of the native and formed urethra 4 times, fistula or partial dehiscence 11 times. The most common perioperative errors were lack of well-vascularized tissue prepared in the subcoronary collar area during the first phase, incision of too narrow a strip of well-attached graft, and too tight suture of the neourethra on the 8F nasogastric tube during the second phase. **Conclusion** Even when the proximal hypospadias surgeon is aware of his perioperative errors such as preparation of lack of well-vascularized tissues or suturing under slight tension, he tends to repeat these errors due to lack of systematic approach, mental discipline, rigour and obsession for details.

Keywords: proximal hypospadias, two-stage technique, preputial graft, complications

PP-23 Urethral Diverticulum Complicating Hypospadias Surgery

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INTRODUCTION: Urethral diverticulum infrequently occurs as a complication in hypospadias repair and may induce several complaints such as incomplete voiding and dribbling after voiding. The reported incidence is 0-21%. It nearly always accompanies proximal defects while distal stricture after surgery seems to be the main cause. **PATIENTS AND METHODS:** Medical records of 674 hypospadias patients treated at our institution between 2011 and 2023 are evaluated retrospectively. The patients who have developed postoperative urethral diverticulum are analyzed. Patient demographics, clinical properties, management and outcomes were documented. **RESULTS:** Urethral diverticulum were developed in 6 patients with an incidence of 0,9%. The type of hypospadias was penoscrotal in 5 patients and perineal in one. The mean age of the patients at first operation and at the time of diverticulum repair was 8 months and 4,1 years respectively. Five patients had their primary repair at our institution and one patient was referred from another clinic. All patients had severe chordee and penoscrotal transposition which all needed to be corrected before planned surgery. Staged repair was performed in 5 patients and island tube urethroplasty in one. The number of mean surgical procedure was 6 including chordee and transposition correction, urethroplasty procedures and complication surgeries. Stricture at the level of glandular urethra was the cause of diverticula in all patients in conformity with incomplete voiding, difficulty in voiding and postvoiding dribbling complaints. Excision of the redundant tissue, urethroplasty and covering the anastomosis with available adjacent vascularized tissue was performed in all patients; subsequent fistula repair was done in two patients. Mean follow-up of the patients are 41 months after diverticula repair and no additional complications occurred. **CONCLUSION:** We hypothesized that the main causes of diverticulum formation are lacking of spongy tissue to support the neourethra, long urethroplasty and distal obstruction due to stiffly distal glandular urethra. Excision of the redundant tissue with multilayer repair seems to be enough and efficient. It is essential in proximal hypospadias repair to constitute an adequate neourethra to avoid additional complications and surgeries.

Keywords: hypospadias, complication, urethral diverticulum

PP-24 Evaluation of Midline Incisional Heineke-Mikulicz Type Penile Plication in Hypospadias Patients

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INTRODUCTION: Repair of penile curvature during hypospadias surgery is a core principle. Midline dorsal incisional Heineke-Mikulicz type penile plication for penile curvature in hypospadias patients is evaluated. **MATERIALS AND METHODS:** Among 156 hypospadias patients, 35 had penile curvature (22,4%) which needed to be corrected during surgical procedure. The mean age of the patients was 4,88. After degloving the penis, tourniquet was applied and Gittes test was performed. The degree of curvature was measured by a smart phone application (Angle Meter). Midline dorsal incisional Heineke-Mikulicz type penile plication was performed at the point of maximal curvature. After plication, Gittes test was performed again to confirm if curvature was corrected. **RESULTS:** The curvatures were detected in 8 distal, 16 mid-penile and 11 proximal hypospadias patients. Degree of the curvature was between 30-45°. In 4 of the patients double plication was performed in whom the curvature was 40-45°. The length of the tunica albuginea incision was kept about 8 mm for single incisions and about 6 mm in multiple incisions in order to avoid composing humpback. The penis was straight in 34 patients and about 10° residual curvature was persisted in one case. TIPU was the chosen urethroplasty technique for distal and mid-penile cases. In 5 of the proximal cases, one stage repair again by TIPU was performed due to well-developed urethral plate. In 6 of the proximal cases, staged repair by Byar's flaps was performed. Mean follow-up of the patients is 18 months and no complications due to penile plication were detected. **CONCLUSION:** Midline dorsal incisional Heineke-Mikulicz type penile plication is safe to perform in hypospadias patients. It can be administered on more than once according to the severity of curvature without significant complications. Longer incisions should be eluded not to form humpback.

Keywords: hypospadias, penile plication, midline incisional

PP-25 Use of Inlay Grafts in Hypospadias Reoperations Presenting with Mid and Distal Urethral Strictures.

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Introduction: Complex hypospadias repair is associated with high incidence of complications such as meatal strictures, fistulas and full urethral strictures after urethroplasty. We reviewed cases presenting with strictures as a complication of previous surgery and that had to be treated with grafts in one and two-stages. **Material and Methods:** We reviewed our database of complex hypospadias from 2010 to 2023 in a non teaching/university hospital where all cases have been treated by the same surgeon and team. We looked at patients with previous surgery (redos) with suspicion of neo urethral stricture and evaluated the number of previous surgeries, type of tissue used, distal or mid penile obstruction, reconstruction in one or two stages, end result. **Results:** We found 22 cases with mean age 4.5 years and mean 1.8 surgeries per patient. Past history of febrile urinary tract infections were seen in all cases, indwelling cystostomy tube in 6, use of abdominal wall to void in 16 and reduced urinary flow in 14 patients. We have excised the fibrotic tissue and used a buccal mucosa graft in 21 cases and penile skin graft in one. Only 3 patients had graft and urethroplasty performed at the same time, the others were treated in two stages. Meanwhile 18 patients have completed treatment and 4 await reconstruction. **Conclusion:** The occurrence of strictures after hypospadias repair is a complex situation and the use of grafts in two stages is the preferred approach, in the minority of cases a dorsal graft and immediate reconstruction can be done.

Keywords: [urethral strictures];[inlay grafts];[complex hypospadias]

PP-27 A Survey Study on the Cosmetic Outcome of Penoscrotal Transposition

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Objective: Penoscrotal transposition is a rare abnormality of the external genitalia characterized by the superior positioning of the scrotum to the penis, resulting from disrupted caudal migration of the labioscrotal swellings. Surgical correction of penoscrotal transposition offers various approaches, but standardization for grading the severity of the condition or evaluating treatment outcomes is lacking. In this study, we aimed to compare the cosmetic results of penoscrotal transpositions corrected using the U-flap technique and perineal dissection.

Methods: We conducted a retrospective evaluation of patients with penoscrotal transposition between 2006 and 2023. A total of 28 patients with accessible preoperative and postoperative photos were included in the study. Of these, 5 patients underwent the U-flap technique, while 23 patients underwent perineal dissection. A survey comprising these photographs was distributed to three urologists who were not actively involved in pediatric urology but were familiar with the normal appearance of the penis and scrotum. The urologists evaluated a total of 90 photos, blinded to patient identity, diagnosis, and clinical data. Their assessments focused on the severity of transposition (0:none, 1:mild,2:moderate,3:severe) and the cosmetic appearance (from 1:very bad to 5:very good)

Results: The mean score for cosmesis in the preoperative photos was 3.27, indicating moderate cosmetic appearance, while the mean score for the severity of transposition was 1.48. Following corrective surgeries, the perineal dissection group exhibited an increase in cosmesis score to 3.66, along with a decrease in transposition severity score to 0.64. Similarly, the U-flap group achieved scores of 3.66 for cosmesis and 0.46 for transposition severity. Evaluation of the preoperative photos revealed that at least one urologist reported no transposition in 11 photos, and three urologists rated the cosmesis as very good in three photos.

Assessing interrater variability for cosmesis, all surgeons provided the same score for 8 photos, while at least two urologists agreed on the score for 31 photos. In contrast, there were 6 photos for which all urologists assigned different scores. Regarding the severity of transposition, all surgeons assigned the same score to 8 photos, and at least two urologists agreed on the score for 32 photos. However, there were 11 photos for which all urologists assigned different scores.

Conclusion: Our findings demonstrate improved cosmesis scores and reduced severity of transposition in both the U-flap and perineal dissection groups. The observed variability among urologists highlights the necessity for a standardized scale to evaluate penoscrotal transposition in the context of hypospadias assessment.

Keywords: penoscrotal transposition

PP-28 A New Urethral Defect Based Hypospadias Classification System

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PURPOSE The currently utilized hypospadias severity classification systems are based on the position of the hypospadiac meatus. The introduced classification system reflects on the main pathogenesis behind this anomaly being objectively addressed. The goal of the study was to appraise the location of the bifurcation of the corpus spongiosum (BCS) relative to penile shaft as an indicator of the severity of hypospadias. **MATERIAL AND METHODS** Patients less than 18 years old with primary hypospadias were included in the study. The urethral defect ratio (UDR) results from the division of the urethral defect (distance between the glandular knobs and BCS) relative to the stretched Penile length (SPL). Hypospadias severity was then categorized into three grades: $UDR < 0.5$, $0.5-0.99$ and ≥ 1.0 respectively. **RESULTS** A total of 67 patients aged 12.3 ± 3.7 months with primary hypospadias were enrolled. The UDR ranged between 0.2 and 1.3. There was a significant difference observed between UDR grades and the degree of curvature ($P < 0.0001$), and urethral plate quality ($P < 0.0001$), and associated anomalies ($P < 0.05$) unlike in the case of meatal position-based classification system. **CONCLUSIONS** A hypospadias severity scoring system based on urethral defect reflects on its embryological etiology and relative to the penile shaft appears objective, feasible and consistent tool. This system could facilitate objective description of the hypospadias anomaly and further supports precise communication between surgeons and centers.

Keywords: Hypospadias; Classification; Hypoplasia

PP-30 Our Experience in Chordee Without Hypospadias

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Introduction: Congenital penile curvature is an anomaly that often accompanies hypospadias. It is the abnormal curvature of the erected penis without any abnormality in penile chord meatal position without hypospadias and it is a rare condition. The prevalence of penile curvature was found to be 0.037% by Ebbehøj and Metz, and 0.6% by Yachia . However , chordee without hypospadias is a rare condition . We aimed to review our experiences in the light of the literature by presenting our cases of congenital chordee without hypospadias that we operated on in pediatric patients. **Material and Method:** The data of the patients who were operated in our clinic between January 2020 and June 2022 for congenital chord without hypospadias were analyzed retrospectively **Results:** The ages of the patients were determined as 23-176 months (median 91.8 months). It was observed that the chordee degree of the patients was between 30-90 degrees. Seven of the 17 patients had chordee after degloving of the penis, that is, they had skin chordee. Heineke-Mikulicz plication was performed in 5 of the remaining ten patients and tunical plication was performed in 3 patients. Two patients with ventral cords underwent corporotomy and ventral grafting (Stag operation) in their follow-up. It was observed that 5 of 17 patients had circumcision before and only one of them recovered after penile degloving. Post operative ; Ecchymosis was observed in one patient and hematoma was observed in one patient who underwent corporotomy. In the follow-ups, chordee was completely recovered in all other patients who had ventral ten degree chordee in one patient who underwent corporotomy. **Discussion:** The vast majority of penile cords without hypospadias can be corrected with simple degloving or plication techniques. No matter what technique we use, the protection of neurovascular structures and the urethral plate should be our main goal. Although penile cordis without hypospadias is rare, we argue that it can be performed in experienced centers with low complication rates and successful results.

TABLE1: Type, direction and surgical method of chordee

Patient number	Age (Month)	Direction of chordee	Degree	Type of chordee	Surgical method
Patient 1	85	Right dorsal	40	2	Heineke-Mikulicz
Patient 2	110	Right dorsal	60	4	Heineke-Mikulicz
Patient 3	120	Right lateral	30	3	Tunical plication
4. Patient	23	Right lateral	60	Skin cordee	Deglove
5. Patient	74	Left lateral	40	3	Tunical plication
6. Patient	84	Left lateral	30	Skin cordee	Deglove
7. Patient	43	Left lateral	90	4	Heineke-Mikulicz
8. Patient	40	Left lateral	45	4	Heineke-Mikulicz
9. Patient	60	ventral	30	Skin cordee	Deglove
10. Patient	112	ventral	30	Skin cordee	Deglove
11. Patient	133	ventral	90	5	Corporotomy
12. Patient	159	ventral	70	5	Corporotomy
13. Patient	32	ventral	30	Skin cordee	Deglove
14. Patient	112	ventral	30	Skin cordee	Deglove
15. Patient	176	ventral	30	3	Heineke-Mikulicz

Keywords: Chordee without Hypospadias, penis abnormalities,, penile curvature

PP-31 Spongioplasty as a Second Layer Over Urethroplasty in Distal and Midpenile Hypospadias Patients

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INTRODUCTION: Interposition of healthy tissue over urethroplasty to avoid urethrocutaneous fistula is a common practice during hypospadias surgery. The use of spongy tissue to cover the neourethra is discussed. **MATERIALS AND METHODS:** The results of 85 distal and 56 mid-penile hypospadias patients are evaluated in whom Bhat's modified Y-I spongioplasty was performed. After complete penile degloving, chordee is evaluated and repaired if present. Well-developed spongiosum is dissected above the Buck's fascia starting from lateral sides towards urethral plate. Spongy tissue is dissected enough to be easily sutured in the midline without any tension in a continuous fashion from proximal to distal end. **RESULTS:** Among 141 patients evaluated, urethrocutaneous fistulas occurred in three patients (2,1%). Due to careful and adequate dissection, no additional bleeding or stenosis occurred during mean follow-up of 18 months. Additional complications caused by interposing other healthy tissues such as torsion, acquired chordee, stenosis or skin loss are avoided by spongioplasty. **CONCLUSION:** Spongy tissue is readily available and there is no need for additional harvesting during surgery. There is no additional complication detected due to procedure and urethrocutaneous fistula rate is below reported ratios.

Keywords: hypospadias, spongioplasty

PP-32 Use Of Hyperbaric Oxygen Therapy in Treatment of Postoperative Glans Ischemia After Hypospadias Surgery

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Introduction: We aimed to present the hyperbaric oxygen therapy(HBOT) results of five patients who were operated for distal hypospadias and developed glans ischemia. **Methods:** Five patients who received HBOT after hypospadias surgery between October 2022 and April 2023 were included in this study. HBOT protocol was carried out in 2.4 ATA(45 fsw) and treatment time was 120 minutes. The number of sessions determined individually for each patient. Before and after therapy penis and glans of the patients were photographed. **Result:** Patients who developed glans ischemia were treated for the formation of necrosis demarcation line and to support wound healing. It was observed that the ischemic status improved in all patients from the first session of treatment. All patients were discharged when the wound epithelisation started after the ischemia line was demarked. Wound healing was better in patients with early detection of glans ischemia and whose sessions were started more quickly. Urethral strictures requiring urethral dilation developed in patients who started their sessions later than others. **Discussion:** Hypovascularity may develop in penile tissues in hypospadias surgeries. This may lead to the development of complications such as delayed wound healing and the need for additional surgical repair. HBOT is one of the treatment modalities used when conventional oxygen treatments used to relieve hypoxia do not yield the desired results when it comes to ischemic changes. While HBOT is used primarily due to its effects of hyperoxygenation and reduction of gas volume; it is also used as an adjunct to other treatments with secondary effects such as vasoconstriction, angiogenesis, fibroblast proliferation, increased collagen synthesis and increased leukocyte oxidative killing function. HBOT can reduce the complication rate of hypospadias surgery and provide better results by increasing the amount of dissolved oxygen in the blood, eliminating hypoxia in ischemic tissues due to reduced blood flow, and accelerating wound healing. **Conclusion:** We believe that HBOT treatment in the early period is important in preventing the progression to necrosis and reducing early and late complications in the case of post-operative glans ischemia after hypospadias surgeries.

Table and images before - after HBOT sessions

Table:

Patients	Age	Diagnosis	Surgical	HBOT	HBOT	Secondary
			Method	Initiation	Sessions	Intervention
				Date		

“5th World Congress of the Hypospadias International Society”

1	10 yrs	Coronal Hypospadias	TIP repair	Postop 7th day	14	Urethral Dilation
2	1 year	Coronal Hypospadias	MAGPI	Postop 1st day	9	
3	3 yrs	MIP	Duplay	Postop 4th	5	Urethral Dilations
4	3 yrs	MIP	Duplay	Postop 1st day	9	
5	2,5 yrs	Glanular Hypospadias + Concealed Penis	MAGPI + Concealed Penis repair	Postop 1st day	6	

Images before and after HBOT sessions

Case 1:



Case 2:



Case 3:



Case 4:



Case 5:



Keywords: hypospadias, hyperbaric, HBOT, glans, ischemia

PP-33 Glans Ischemia After Circumcision and Dorsal Penile Nerve Block. Clinical Case

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Introduction. Circumcision of the foreskin is one of the most common surgical procedures. Unfortunately, complications can occur in the intra- and postoperative period. One such serious and rare complication is post-circumcision ischemia, and sometimes necrosis of the glans penis. **Purpose of the study.** To present our own experience in the treatment of a rare complication of ischemia of the glans (IG) of the penis that developed after circumcision. **Materials and methods.** A 12-year-old boy was admitted to the surgical department of Voyno-Yasenetsky for surgical treatment of circumcision. Immediately before the operation, a dorsal pineal blockade was performed with a solution of naropin 0.2% 20 ml without the use of adrenaline under ultrasound control. During the surgical intervention, a classic circumcision of the foreskin was performed using monopolar electrocoagulation with a power of 12 W. Vicril 4/0 interrupted sutures were placed. 12 hours after the operation, there was a change in the color of the glans penis with the appearance of multiple areas of dark color, without priapism. In order to exclude thrombosis, the child underwent an ultrasound examination of the penis. In order to stop microcirculatory disorders, therapy was prescribed aimed at improving the rheological properties of blood (pentoxifylline, actovegin, heparin), antibiotic therapy (ceftriaxone), symptomatic treatment, as well as local treatment (heparin leniment). The therapy was carried out against the background of daily monitoring of activated partial thromboplastin time (APTT) and prothrombin. As a result of the therapy, a positive result in the form of normalization of the color of the head began to be observed 48 hours after the operation. After 6 days the child was discharged home in a satisfactory condition. The control examination was carried out after 2 weeks and 1 month. The blood supply was completely restored to the skin and the glans penis, healing by primary intention, the meatal opening was not narrowed, urination with a wide stream. **Conclusion:** The etiology and pathogenesis of IG is not well understood. The most common cause of IG is dorsal nerve block with local anesthetics with or without vasoconstrictors.

Keywords: Circumcision, glans, necrosis, nerve block.

PP-35 Outcomes of Isolated Male Epispadias

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Aim. To present the results of epispadias repair in six male patients. **Methods.** The patients presented here were corrected by partial penile disassembly procedure. We undertook epispadias repair on six males patients aged two to nine years (2011-2021). Three patients had a midshaft and in other three the epispadias was penopubic. We performed a partial disassembly of corporal bodies from the urethral plate, proximal to the pubic bone and distal to the glans. We left the corporo-glans junction intact. The urethral plate was tubularized and moved from the dorsal to the ventral position. We covered the neourethra with corpora. Dorsiflexion was corrected by the technique of external body rotation. Glanuloplasty was then performed. **Results.** Patients were followed for two to twelve years: five were continent, one patient was incontinent and had dry periods of up to two hours. In four patients the penis had good cosmetic appearance with no significant dorsiflexion. Two patients have poor cosmetics: one patient has swollen lichen-like skin, the other has moderate dorsolateral flexion/rotation of the penis. The latter has a horizontal meatus with dispersion of the urinary stream during micturition. **Conclusion.** Partial penile disassembly repair gives acceptable results in male patients with epispadias.

Keywords: partial penile disassembly

PP-36 A Rare Case of Duplication Urethra. Clinical Observation

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Purpose: Analysis of treatment tactics of examination and treatment of children with rare malformation of the urethra - congenital posterior urethroperineal fistula (CUPF). **Materials and methods:** The study included 26 children (retrospective analysis) with over the last 50 years and the results of their own clinical observations. It is assumed that abnormal midline fusion of the lateral ridges of the urorectal folds giving rise to an accessory urogenital sinus, which subsequently induces the development of a completely duplicated urethra or CUPF. The patient, 3 years old, was observed from birth about the fistula course on the perineum. Parents noted periodic discharge from the fistula, looks like urine. During the physical examination, a tiny hole with a diameter of about 1 mm was found on the skin of the perineum at a distance of 4 cm in front of the anus in the middle line. Cystoscopy was performed with the introduction of methylene blue through the opening of the fistula on the perineum and the receipt of a coloring solution in the prostatic part of the urethra was noted to be proximal and to the right of the seminal tubercle. Were verified the diagnosis of CUPF. The operation was done, a bordering incision around the fistula was made. False urethra first had the direction of the rectum, and then skirted the left half bulbospongiosus muscles and in the end went to the prostatic urethra. The proximal part of the fistula was ligated with Vicryl 3-0. The length of the excised area was 4.5 cm, the diameter of the fistula varied from 0.4 to 0.2 cm and narrowed in the direction of the perineum. Histological examination showed that the fistula was lined by stratified squamous keratinizing epithelium. During 1 year of follow-up after surgery, there was no recurrence of fistula. **Conclusions:** Congenital posterior urethroperineal fistula are extremely rare. The presented observation corresponds to type II A2, Y-shaped doubling of the urethra, described by Effmann (1979). The difference is that with CUPF there is a normally functioning dorsal urethra and hypoplasized additional ventral urethra.

Keywords: Congenital posterior urethroperineal fistula (CUPF), Duplications of the urethra, anomalies of the urethra, malformation of the posterior urethra, fistula of the urethra.