


Top 5 Questions I Get From PCPs

Kathleen Kieran, MD, MS, MME
Associate Professor
Department of Urology, Division of Pediatric Urology
University of Washington
Seattle Children's Hospital
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I DO NOT

- * Have any financial interests in any products I will be discussing
- * Have any financial interests in the companies supporting this event


I WILL NOT

- * Discuss pharmaceuticals, medical procedures or devices that are investigational or non-FDA approved




Learning Objectives

- To summarize some of the most common presenting pediatric urologic complaints
 - N.B. I will NOT be discussing voiding issues—these have their own hourlong talk!!
- To describe the criteria for follow up and specialty care for children with urologic complaints in primary care




Top 5 Questions

- Should I circumcise this little boy?
- Does this young man need a circumcision revision?
- My newborn patient had prenatal hydronephrosis....help?
- What do I do about retractile testicles?
- (Insert name of genitalia) hurts....now what?




Should I Circ this Little Boy?

- Neonatal circumcision is a hotly contested topic
- AAP has stopped short of endorsing neonatal circumcision for all males in the United States
- UTI risk remains increased for uncircumcised compared with circumcised males in first year of life
- Cultural considerations remain important



Important Factors When Considering Circumcision

- Penile anatomy
 - Hypospadias
 - Chordee
 - Torsion
 - Penopubic and penoscrotal junctions
- Family preference
- Infectious disease history and risk



Penile Anatomy

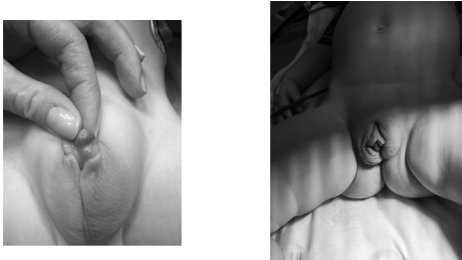
- If hypospadias, chordee, or torsion is present, recommend deferring circumcision
 - Possible exception for very distal glanular hypospadias or dorsal hooded foreskin without chordee/torsion/hypospadias
- Except for very proximal hypospadias or prominent chordee, preputial tissue is rarely used for reconstruction (but save it anyway)
- Poor penoscrotal and penopubic junctions can create a true "buried" appearance after circumcision



Poor Penopubic/Penoscrotal Junctions



Hypospadias/Chordee: Consider DSD Diagnoses!



Family Preference and Current AAP Recommendations

POLICY STATEMENT Circumcision Policy Statement

KEY WORDS
Male circumcision, penis, priapism, meatus, frenuloplasty, phimosis, penile prostheses, penile amputation, urethra

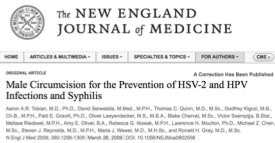
ABSTRACT
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abstract
Male circumcision is a common procedure, generally performed during the newborn period in the United States. In 2012, the American Academy of Pediatrics (AAP) formed a multidisciplinary task force of AAP members and other stakeholders to evaluate the most current evidence regarding circumcision. The document is copyrighted and is property of the American Academy of Pediatrics and its Board of Directors. All authors have the right of review and approval to publish. No part of this document should be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of the American Academy of Pediatrics. For more information, contact the American Academy of Pediatrics, 545 North Dearborn Street, Elk Grove Village, IL 60015-5106. Copyright © 2012 American Academy of Pediatrics. All rights reserved. Reproduction of this document is prohibited without the prior written permission of the American Academy of Pediatrics.

- Sociocultural, rather than medical, considerations drive most families' decision making
- AAP does not explicitly endorse circumcision *but* says benefits of neonatal circumcision exceed risks



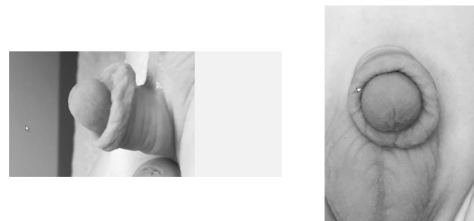
Infectious Disease History and Risk



VanBuskirk et al 2011
Grey et al 2010



Does this Young Man Need a Circumcision Revision?



Does this Young Man Need a Circumcision Revision?

- Many (maybe most) circumcision revision requests are on children whose penile anatomy was not appropriate for neonatal circumcision
- Need to balance anesthetic and surgical risks with cosmetic and functional risks when considering revision
- In some cases, children will “grow out” of this as suprapubic fat pad decreases in size



If It's Made the New York Times, It Must Be Important



What About the Locker Room?

Teasing in School Locker Rooms Regarding Penile Appearance

Siobhan E. Alexander, Douglas W. Storm and Christopher S. Cooper*
 From the Department of Urology, University of Iowa, Iowa City, Iowa

- 10% of boys were teased about penis
- 47% witnessed others being teased about penis
- 33% of teasing was about uncircumcised or “strange” looking penis
- 3% of boys desired a different looking penis

Urology 2015



“Real” Indications for Revision

- Cicatrix
- Truly buried penis (e.g. flush with skin)
- Epithelialized adhesions with a large amount of redundant foreskin
- Maybe buried head of penis?



My Newborn Patient had Prenatal Hydronephrosis...Help!

- Kidneys are the organ most commonly affected by congenital anomalies
- Hydronephrosis is the most common prenatal renal anomaly (0.6-5.4% of pregnancies) seen sonographically
 - May be a normal part of development
 - More relevant/concerning when in all renal units, associated with ureteral dilatation, associated with other congenital anomalies, associated with oligo-/anhydramnios, or dilatation above cutoffs for gestational age
 - Ideally should have seen a urologist prenatally for the above




So, What Do I Do?

- Typically a renal-bladder ultrasound is ordered, with instructions to perform after 24 hours of life
 - Before child is discharged
 - Should not interfere with parent-child bonding
 - Early ultrasounds may underestimate true degree of hydronephrosis
- Based on early imaging study, additional (more invasive) testing may be considered
 - VCUG
 - MAG-3 renal scan
 - Another RBUS



Grading of Upper Tract Dilatation


- UTD P1:
- UTD P2:
- UTD P3:



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Grading of Upper Tract Dilatation


- UTD P1:
- UTD P2:
- UTD P3:



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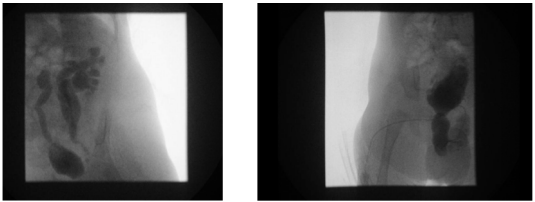
Grading of Upper Tract Dilatation

- UTD P1:
- UTD P2:
- UTD P3:



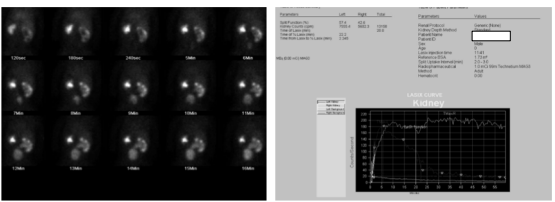
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VCUG: Shows Reflux and Urethral Obstruction



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MAG-3 Renal Scan: Shows Differential Renal Function and Obstruction



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What Do I Do About Retractable Testicles?

- Very frequently referred for subspecialist evaluation
 - 53% of PCPs had no exposure to pediatric urology during training
 - 67% of PCPs refer all retractile testes for urologic evaluation
- Can be retractile owing to poor gubernacular attachments, or increased cremasteric muscle tone
- About 30% of retractile testes will ascend over time so annual examination by PCP is warranted

Shinoharvarian et al 2015

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Normal Descent of the Testis

- Testes start up by kidneys
- Descend through abdomen to level of the scrotum
- "Descent" mediated by somatic growth, hormones, gubernaculum



Retractile Testes

- True cryptorchidism is an entity distinct from retractile testes, wherein the testicle may reach the scrotum but does not remain there
 - Initially thought to represent inaccurate physical examination techniques
 - Phenomenon of "testicular ascent" now well documented
 - Postulated to reflect a testicle with adequate gubernacular laxity to reach the scrotum, but inadequate fixation in the scrotum
- Longitudinal somatic growth may result in delayed ectopia

Retractile Testes

- Longitudinal growth with abnormal gubernacular insertion likely accounts for observed "ascent"
- 30% of retractile testes will ascend over time
- Annual evaluation is recommended until puberty is complete



A Word About the Long Looping Vas

- Patients with a long looping vas may have a similar examination to those with ascending testes
- Fixation of vasal loop in scrotum distal to the testicle
- Vasal loop can feel like small testicular nubbin

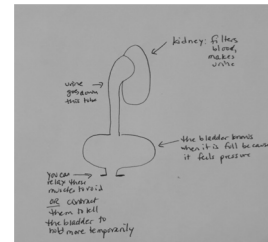


My (Insert Name of Genitals) Hurts....Now What?

- Very frequent cause of referrals to pediatric urology (maybe #1)
- Very distressing for parents and caregivers
- Need a good history on frequency, duration, exacerbating/ameliorating factors, intensity, character


Almost Always Involves a Component of Elimination Dysfunction

- Nerves to genitals run directly adjacent to bladder and rectum
- Typically "burning" pain at tip of penis or in alternating or both testicles





Differential Diagnosis of Testicular Pain

- Hernia
- Intermittent or acute testicular torsion
- Torsion of appendices testis or epididymis
- Voiding concerns
- Varicocele
- Urolithiasis






Testicular Torsion




- Acute onset of unilateral scrotal/abdominal pain
 - May be accompanied by nausea/vomiting
 - May follow physical activity or trauma
 - Pain may improve over time
 - Nonspecific findings like fever, urinary symptoms
- Unilateral horizontal, high-riding testis
 - Palpable twist in cord
 - Reactive hydrocele/scrotal edema may limit exam
 - Prehn's sign: relief of pain with "lifting" of testis
 - Absent cremasteric reflex

Testicular Torsion

Appendix Testis Torsion

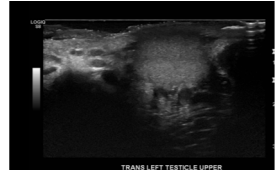

Inguinal Hernia





Varicocele

- More common on left because of drainage pattern of left renal vein
- Consider repair for testicular size discrepancy, semen analysis anomaly, pain

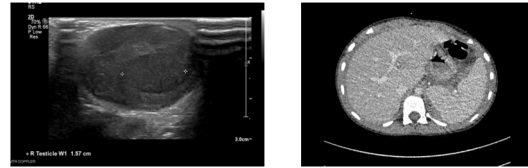



Urolithiasis

- May see nonspecific complaints
- More proximal stones (near kidney) more likely to manifest as testicular pain



An Uncommon But Serious Cause of Testicular Pain



Differential Diagnosis of Penile Pain

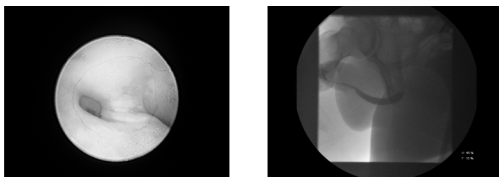
- Stenosis (meatal or preputial)
- Urethral stricture
- Frenulum breve?
- Foreign body
- Bladder irritant

Meatal Stenosis/Penile Adhesions

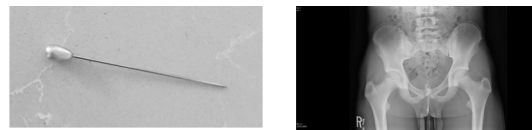


Photo courtesy of Douglas Storm, MD

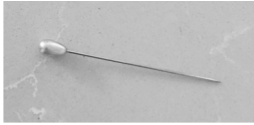
Urethral Stricture



Foreign Body



Foreign Body



Bladder Irritant



Differential Diagnosis of Vaginal Pain

- Labial adhesions
- Lacerations/abrasions
- Foreign bodies
- Vulvovaginitis

Skene's Gland Mass



Lacerations/Abrasions





In Conclusion....

- Pediatric urology is neither easy nor intuitive
 - Disclaimer: this opinion may be influenced by my 8 years in postgraduate medical training
- Genitals are a sensitive topic
- I am always available if you think my input might be helpful




THANK YOU!!!!!!

Questions?

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kathleen.kieran@seattlechildrens.org
734-255-5010

