Practice Changing Articles from 2018-19

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Quebec City, Quebec

Canadian Urological Association

Northern Alberta Urology Centre
UNIVERSITY OF ALBERTA

CUA conflict of interest

- None

A review of 12 months of publications was crowd sourced to highlight studies important to everyone

- Men's Health: Reproductive Health / Erectile function (2)
- Functional urology: UTI, incontinence (2)
- BPH: medical management (1)
- Stones (1)
- Urology Practice (1)
- Pediatrics (3)

Practice Changing Articles: 2018-2019

- Thank you to those who suggested articles and provided their input and insights
  - **Dr. Rodrigo Romao**
  - **Dr. Naeem Bhjoani**
  - **Dr. Peter Metcalfe**
  - **Dr. Ashley Cox**
  - **Dr. Phil Bach**
  - **Dr. Gary Gray**
  - **Dr. Blayne Welk**
  - **Dr. Mitchell Humphreys**
  - **Dr. Ryan Flannigan**

A review of 12 months of publications was crowd sourced to highlight studies important to everyone

- **Men's Health: Reproductive Health / Erectile function (2)**
- Functional urology: UTI, incontinence (2)
- BPH: medical / surgical management (3)
- Stones (1)
- Urology Practice (1)
- Pediatrics (3)

#1 Diet and men's fertility: does diet affect sperm quality?

Feiby L. Nassan, Sc.D., M.B.B.C.H., M.Sc.,[a,b] Jorge E. Chavarro, M.D., Sc.D.,[b,c,d] and Cigdem Tanrikut, M.D.[e]

Departments of [a] Environmental Health, [b] Nutrition, and [c] Epidemiology, Harvard T.H. Chan School of Public Health, Boston, Massachusetts; [d] Channing Division of Network Medicine, Harvard Medical School and Brigham and Women's Hospital, Boston, Massachusetts; and [e] Department of Urology, Shady Grove Fertility, Baltimore, Maryland

Background/Importance:

- Downward trends in sperm concentration /count / quality have been reported over the last 8 decades
- Many dietary influences have been investigated
- This article highlights physiologic processes where nutritional substrates may help/hinder spermatogenesis

Design:

- Systematic review

Findings:

- A) Omega 3 Fatty Acids (DHA+EPA supplementation 21 men with oligoastheneoteratospermia) improve sperm quality (count, concentration,% motility, morphology)

  Walnuts: supp RTC improved sperm quality

  Fish: prospectively found to decreased time to pregnancy

Fertility and Sterility 2018: 110: 570-7

#1 Diet and men's fertility: does diet affect sperm quality?

B) Trans fat/saturated fat: deleterious effects

- Animal models show – poor semen quality, dec T, testicular mass, test degeneration.
- Saturated fats: observational study inversely related to sperm count

C) Antioxidants: Protective/beneficial effects

- RTC improves semen quality, motility, preg of live birth. (Vit C, vit E, beta carotene)
- RTC Folate with zinc increased sperm counts without effects on FHS, T, or inhibin B

D) Dairy / Beef:

- modern dairy farming: 60-80% dietary estrogen
- Beef: anabolic sex hormones (est, progest, tesost) – inconclusive

E) Methyl-mercury: fish intake likely outweighs the risk of heavy metal contamination

F) Farming pesticides: total fruit/veg unrelated to sperm. High pesticide residue fruits (strawberry, spinach, apples) poorer semen quality in fertility clinic patients

Fertility and Sterility 2018: 110: 570-7

#1 Diet and men's fertility: does diet affect sperm quality?

G) Dietary patterns:

- Mediterranean diet good for sperm quality
- Unhealthy diet (fats red/processed meats, refined grains, sweets) deleterious

Take-home Points:

- **Good**: -Increased omega3 fatty acids from foods nut/fish
  -Antioxidant supplementation: folate, b12, zinc
  -Healthy eating patterns
- **Bad**: Western dietary pattern
- **Questionable**: Environmental toxins, soy, dairy, meat

Fertility and Sterility 2018: 110: 570-7

#2


THE JOURNAL OF
SEXUAL MEDICINE

ORIGINAL RESEARCH

PEYRONIE'S DISEASE

Efficacy of Combined Collagenase *Clostridium histolyticum* and RestoreX Penile Traction Therapy in Men with Peyronie's Disease

Check for updates

Manaf Alom, MBBS, Kiran L. Sharma, PhD, Amir Toussi, MD, Tobias Kohler, MD, and Landon Trost, MD

Background/Importance

- Penile curvature can be a debilitating factor in sexual health, and is now being more commonly treated with Collagenase Clostridium Histolyticum (Xiaflex)
- Could traction improve outcomes

Design: Retrospective review of 287patients divided into 3 cohorts

Methods:

- After CCH injection (Peyronie's with >30%) penile traction devices were assessed

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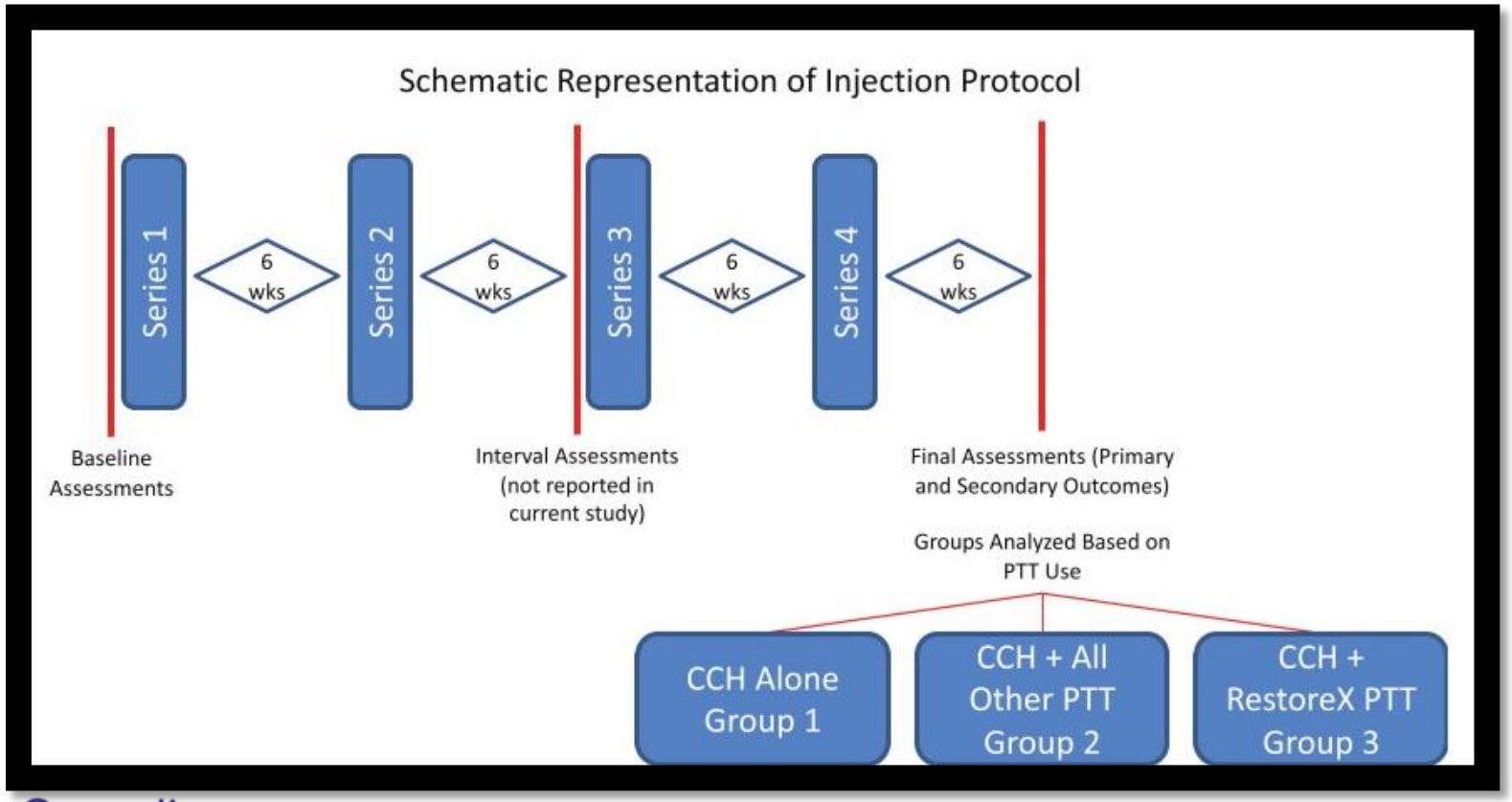
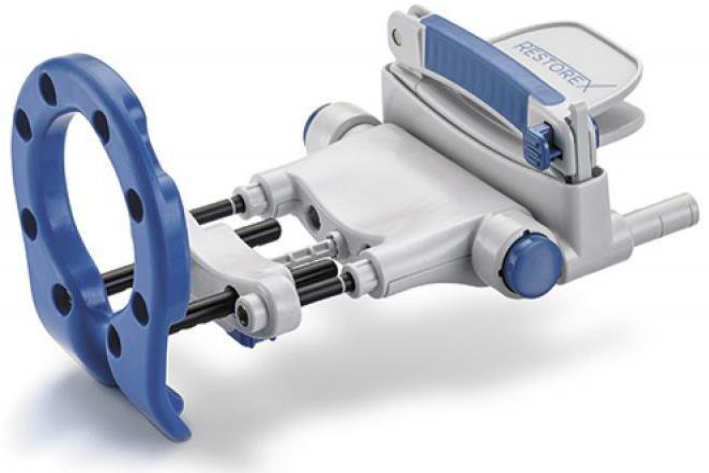
J Sex Medicine 2019:16: 891-900

#2

Efficacy of Combined Collagenase *Clostridium histolyticum* and RestoreX Penile Traction Therapy in Men with Peyronie's Disease

3 cohorts of men:





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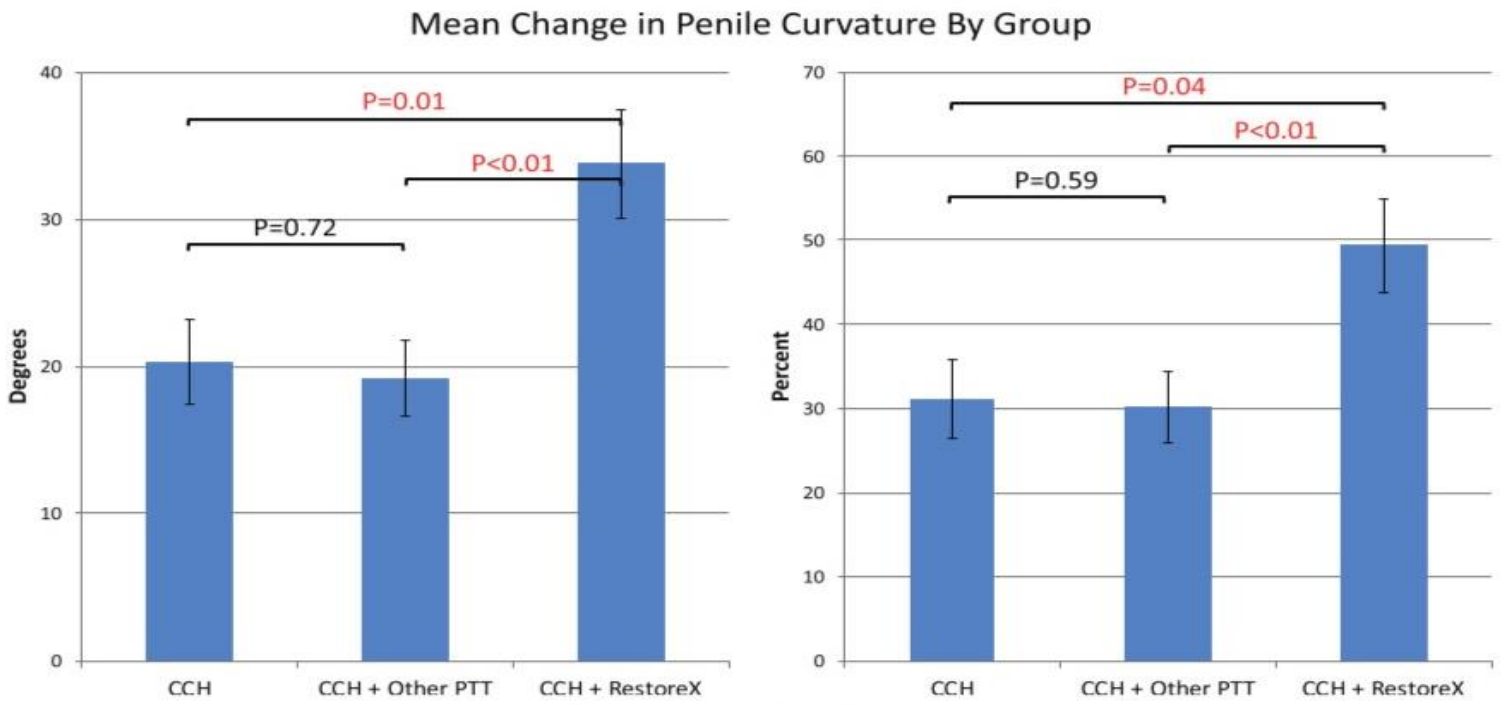
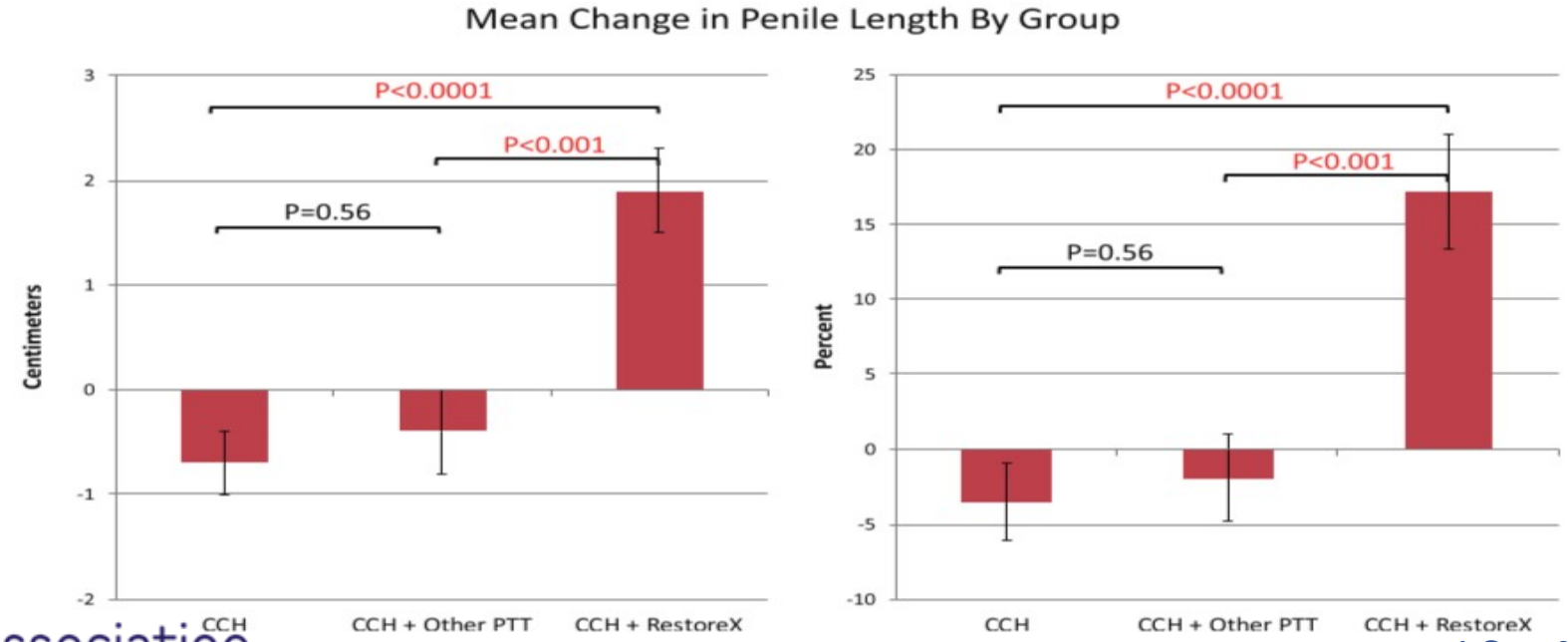
J Sex Medicine 2019:16: 891-900

#2



Percentage change from baseline showing significant improvements in RestoreX +CCH



CM and % change, (final-baseline length), symphysis to corona

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J Sex Medicine 2019:16: 891-900

#2

Efficacy of Combined Collagenase *Clostridium histolyticum* and RestoreX Penile Traction Therapy in Men with Peyronie's Disease

- Subjective Improvement:
  - Meaningful % change: 93% vs 80-85%
  - Improved Penetration: 93% vs 78-80%
- AEs: no difference in ecchymosis (30, 50, 19%, p=0.13). No fractures in group 3

Take-Home Point: Pairing successful treatment or full course with effective PTT can improve curvature and length, with minimal risk of additional AE

J Sex Medicine 2019:16: 891-900

Practice Changing Articles: 2018-2019

- Men's Health: Reproductive Health / Erectile function (2)
- **Functional urology: UTI, LUTS, incontinence (5)**
- BPH: surgical, medical management
- Endourology/Stones
- Urology Practice
- Pediatrics

#3

JAMA Internal Medicine | Original Investigation

Effect of Increased Daily Water Intake in Premenopausal Women With Recurrent Urinary Tract Infections
A Randomized Clinical Trial

Thomas M. Hooton, MD; Mariacristina Vecchio, PharmD; Alison Iroz, PhD; Ivan Tack, MD, PhD; Quentin Dornic, MSc; Isabelle Seksek, PhD; Yair Lotan, MD

Background/Importance:

Recurrent UTIs in younger women rely on lifestyle modification as first line primary prevention.

Though many recommendations exist, little is known about their true effect on prevention

JAMA IM2018: 178: 1509-15

#3

Effect of Increased Daily Water Intake in Premenopausal Women With Recurrent Urinary Tract Infections
A Randomized Clinical Trial

Design: Multicenter RTC of women with recurrent UTIs

Methods:

- Inclusion criteria: Premenopausal, >18, “good general health”, 3 episodes of “infectious cystitis” in the preceding year
- Self reported fluid intake <1.5L/day

- **Intervention**:
  - Centrally Randomized 1:1
  - Bottled water (home delivery) + education on adding 1.5L per day over baseline, vs control (no increase)
  - Monthly phone call, 3d fluid diary, 6 and12month 24hr urines
- **Primary outcome:**
  - Reduction in UTI
- **Secondary outcome:** number of antibiotic courses, 24hr urine volume changes, time to first UTI
  - Safety, AE

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JAMA IM2018: 178: 1509-15

#3

Effect of Increased Daily Water Intake in Premenopausal Women With Recurrent Urinary Tract Infections
A Randomized Clinical Trial

Outcomes:

- n=64 treatment, n=69 control
- **Population**:
  - 36yo, 92% sexually active, 3.3 preceding UTI/year
- **Hydration compliance:**
  - At 12months **24hr urine increased by 1.7L,** no change in control
  - No significant AE were reported

JAMA IM2018: 178: 1509-15

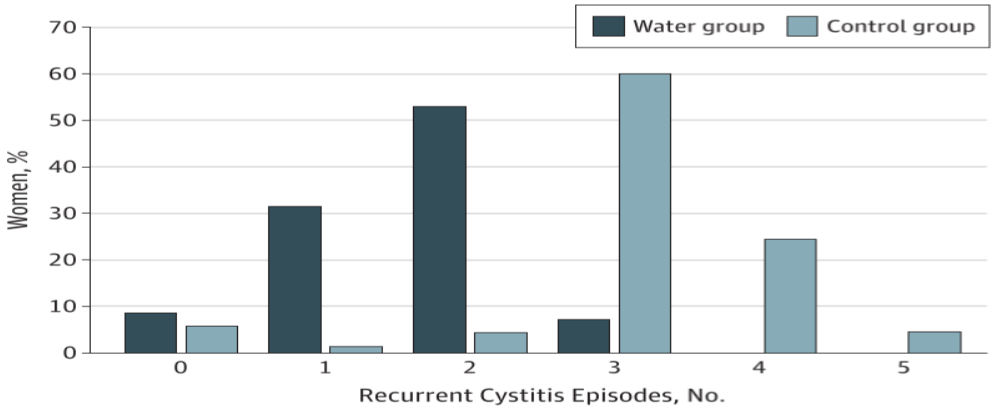
#3

Effect of Increased Daily Water Intake in Premenopausal Women With Recurrent Urinary Tract Infections
A Randomized Clinical Trial

UTI Outcomes:

- **1.7 UTI episodes** (vs 3.2 in control)
- **1.7 less antibiotic prescriptions**

Figure 2. Recurrent Cystitis Episodes by Study Group



Number of recurrent cystitis episodes during the 12-month follow-up, percent of women by study group. All 140 women who underwent randomization were included in the analysis.

Take-home Points: Level 1 evidence now exists for a 30% decrease in symptomatic UTIs and antibiotic use by increasing hydration in young healthy women

Given the rigorous design, compliance and treatment effect may be difficult to achieve in a clinical practice

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JAMA IM2018: 178: 1509-15

#4

Long-term Safety and Efficacy of Mirabegron and Solifenacin in Combination Compared with Monotherapy in Patients with Overactive Bladder: A Randomised, Multicentre Phase 3 Study (SYNERGY II)

Christian Gratzke[a,], Rob van Maanen[b], Christopher Chapple[c], Paul Abrams[d], Sender Herschorn[e], Dudley Robinson[f], Arwin Ridder[b], Matthias Stoelzel[b], Asha Paireddy[b], Sang Jin Yoon[g], Salman Al-Shukri[h], Tomasz Rechberger[i], Elizabeth R. Mueller[j]*

Primary objective: SAFETY of Combination therapy for OAB/UUI:

Design: n=1800, double blind, 12week study

- Solifenacin 5mg
- Mirabegron 50mg
- Solifenacin + Mirabegron

Outcomes: AE: 49%combo, 44% Solif, 41% Mirabeg

- Drymouth -combo (6.1%), M (3.9%), S (5.9%)
- Constipation –combo (3%), M(1%), S (2.3%)
- UTI - -combo(8.4%), M (6.2%) S (5.9%)
- Severe AE: Afib in 1 Mirabegron patient

Efficacy:

- UUI: -2.6 episodes Combo, -2.1Mirbeg, -0.4 Solif
- HRQoL, OABq, all improved within 1month

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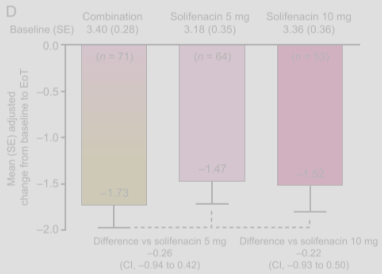
#5

Treating Overactive Bladder in Older Patients with a Combination of Mirabegron and Solifenacin: A Prespecified Analysis from the BESIDE Study

William Gibson[a,], Scott MacDiarmid[b], Moses Huang[c], Emad Siddiqui[c], Matthias Stölzel[d], Nurul Choudhury[c], Marcus J. Drake[e]*

[a]Division of Geriatric Medicine, University of Alberta, Edmonton, AB, Canada; [b]Alliance Urology Specialists, Greensboro, NC, USA; [c]Astellas Pharma Inc., Chertsey, UK; [d]Astellas Pharma Europe B.V., Leiden, Netherlands; [e]University of Bristol and Bristol Urological Institute, Bristol, UK

- Assessed combination therapy in older patients with urgency incontinence
- **Design**: Solifenacin 5mg was given for 4w. Those with remaining incontinence were randomized to
  - Solifenacin 5mg
  - Solifenacin 10mg
  - Solifenacin 5mg + Mirabegron 25 (increased to 50mg)
- Results: 2110 pts randomized



Combo Tx Improved:

Incontinence/day

Voids/day

Urgency

- No differences in AE (AUR, CV, dizziness/falls)

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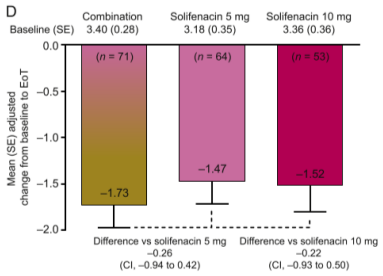

Combo Tx Improved:

Incontinence/day

Voids/day

Urgency

- No differences in AE (AUR, CV, dizziness/falls)

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#6

JAMA Internal Medicine | Original Investigation

Anticholinergic Drug Exposure and the Risk of Dementia
A Nested Case-Control Study

Carol A. C. Coupland, PhD; Trevor Hill, MSc; Tom Dening, MD; Richard Morriss, MD; Michael Moore, MSc; Julia Hippisley-Cox, MD

Background/Importance:

- Anticholinergic (AC) exposure has been thought to be a possible modifiable risk factor for dementia by its ability to block acetylcholine in the central and peripheral nervous systems
- Therefore this study was designed to ass the association between cumulative AC drug use and the risk of dementia.

Design:

- Nested case controlled design Primary Care database (3million patients from UK)
- 58,769 patients identified with a diagnosis of dementia, matched 1:5 with 225,000 controls
- 11y exposure window
- Cumulative and Total Standard Daily Doses (TSDD) was calculated for 11 categories of anticholinergics
- Anticholinergics prescribed the year before Dx of dementia were censored as they may have been used to treat dementia symptoms
- Confounders were accounted for, and specific subtypes of dementia were excluded to reduced indication bias

#6

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Outcomes:

At diagnosis of dementia:

- 82y/o, 63% female, 60% Alzheimer/mixed, 36% Vascular dementia 3.6% other

Exposure to at least one AC Rx:

- 56% of those with dementia, 51% control – at least one
- Median AC: dmentia-6 , control-4

Class	Case	control
Antidepressants	27%	23%
Antiemetics	24%	21%
Bladder	11.7	8.3
GI Antispasmodic	6.9	6.9
Antiarrhythmics	0.1	0.1
Antimuscarinic Bronchodil	6.6	6.2

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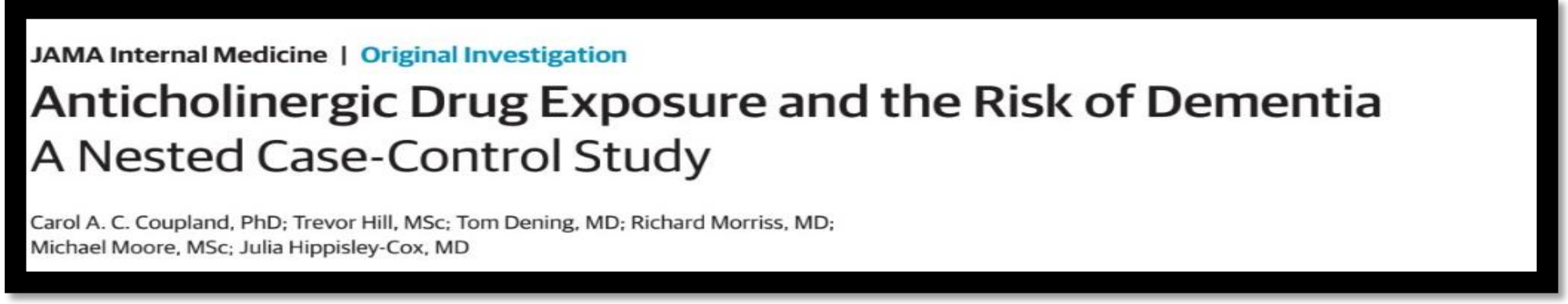
Over 11y exposure:

- Stronger associations in younger patients exposed to high AC
  - < 80, AOR 1.81
  - >80, AOR 1.36

Bladder Antimuscarinics, TSDDs			Adjusted OR
Nonuse	51 905 (88.3)	206 796 (91.7)	1 [Reference]
1-90	2139 (3.6)	7005 (3.1)	1.21 (1.15-1.27)
91-365	1417 (2.4)	4078 (1.8)	1.38 (1.30-1.47)
366-1095	1244 (2.1)	2941 (1.3)	1.71 (1.59-1.83)
>1095	2064 (3.5)	4754 (2.1)	1.73 (1.64-1.82)

- Associations were strongest for antidepressants, bladder antimuscarinics, antipsychotics, an antiepileptic drugs

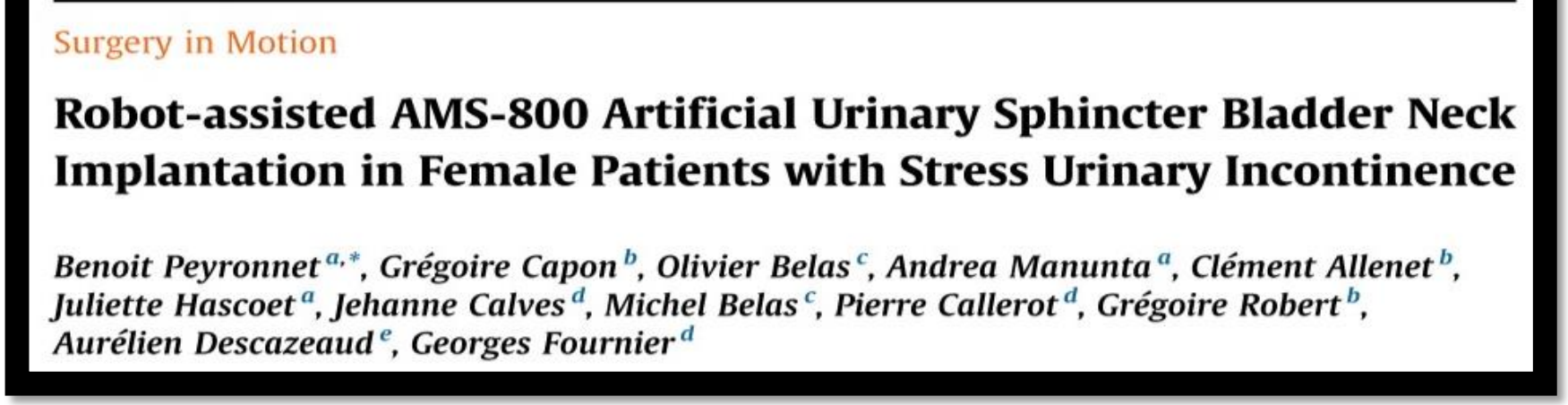
#6



Take-home Points:

- Causality cannot be established by this study: however it appears that 10% of dementia diagnoses are associated with AC prescriptions.
  - Modifiable Dementia risk factors: Htn(5%), inactivity (6.5%), Smoking (14%)
- Judicious use of AC may benefit those at risk of dementia
- Total AC load should be assessed and optimized

#7



Surgery in Motion

Robot-assisted AMS-800 Artificial Urinary Sphincter Bladder Neck Implantation in Female Patients with Stress Urinary Incontinence

Benoit Peyronnet[a,], Grégoire Capon[b], Olivier Belas[c], Andrea Manunta[a], Clément Allenet[b], Juliette Hascoet[a], Jehanne Calves[d], Michel Belas[c], Pierre Callerot[d], Grégoire Robert[b], Aurélien Descazeaud[e], Georges Fournier[d]*

Background/Importance:

- Though artificial urethral sphincters (AUS) have been considered the gold standard for men, sphincter use in women has been limited by technical challenges of the retropubic approach to implantation.
- Variable usage internationally with EUA calling it a last resort, AUA guidelines not mentioning it, and France considering it the gold standard
- Robotic female AUS implantation has started to gain momentum globally due to the improved ease of dissection and access to the bladder neck, minimized bleeding, and lower morbidity than an open procedure

Eur Urol 2019(75)169-75

#7

- A retrospective pooled analysis of 50 cases by 10 surgeons (5 institutions) with mixed robotic and AUS experience was performed
  - 6 had minimal (<50) robotic experience, and no fAUS
  - The rest either had strong robotic **OR** strong fAUS experiences
- Patient Population: >1y follow up

  Type III SUI and ISD (low closure pressure, loss of mobility, negative marshall bonney test
- Primary Outcome: complete continence (no-pad) status at 1y

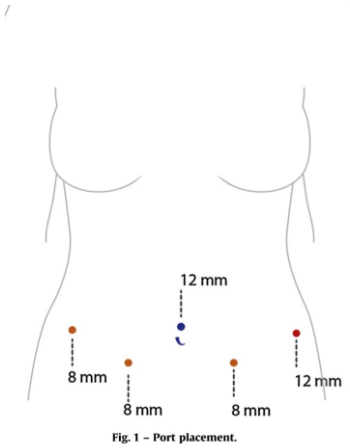
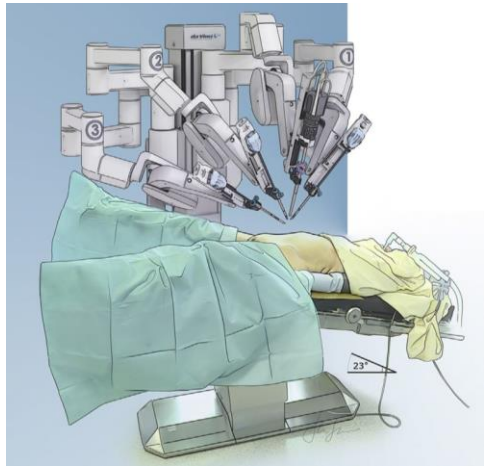
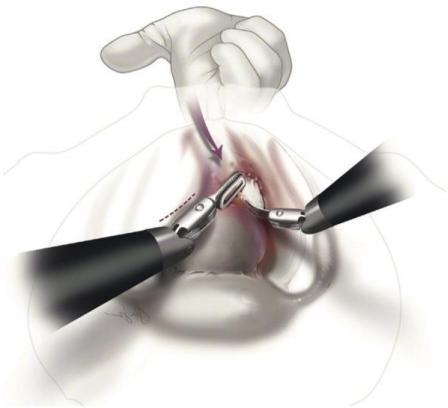


Fig. 1 – Port placement.





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Eur Urol 2019(75)169-75

Table 1 – Patient characteristics

	N = 49
Median age (yr)	70.5 (28–86)
Body mass index (kg/m^2)	27.5 (±4.6)
ASA score	
1	8 (16.3%)
2	31 (63.3%)
3	10 (20.4%)
History of previous anti-incontinence surgery	42 (85.7%)
History of previous midurethral sling	39 (79.6%)
Median preoperative urethral closure pressure (cmH_2O)	20 (8–45)
History of pelvic radiation therapy	0 (0%)

ASA = American Society of Anesthesiologists.

Table 3 – Functional outcomes

	N = 49
Median follow-up (mo)	18.5 (12–64)
Explantation	1 (2%)
Revision	3 (6.1%)
Functional outcomes	
Cured	40 (81.6%)
Improved	6 (12.2%)
Unchanged	3 (6.1%)
De novo overactive bladder symptoms	3 (6.1%)
Sphincter deactivated permanently due to difficulties in handling the pump	2 (4.1%)

Explantation: vaginal erosion in a patient who had a known vaginal injury intra-op

Revision: bladder neck erosion, Mechanical failure, proximal labial migration of the pump

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Eur Urol 2019(75)169-75

#7

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Robot-assisted AMS-800 Artificial Urinary Sphincter Bladder Neck Implantation in Female Patients with Stress Urinary Incontinence

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Take-home Points:

- The use of Female sphincters have a poorly defined role in our current management of SUI, but is gaining interest
- Compared to the open literature: bladder neck injuries, vaginal injuries, explanation can occur in up to 40% of cases
- Complication rates are low, even in the hands of novice robotic surgeons with/out prior AUS experience
- Now being performed in Canada, select women with severe SUI may have expanding options

Eur Urol 2019(75)169-75

Practice Changing Articles: 2018-2019

- Men's Health: Reproductive Health / Erectile function
- Functional urology: UTI, incontinence
- **BPH: medical management (1)**
- Endourology/Stones
- Urology Practice
- Pediatrics

#8

A prospective randomised placebo-controlled study of the impact of dutasteride/tamsulosin combination therapy on sexual function domains in sexually active men with lower urinary tract symptoms (LUTS) secondary to benign prostatic hyperplasia (BPH)

Claus G. Roehrborn*, Michael J. Manyak†, Juan Manuel Palacios-Moreno‡, Timothy H. Wilson§, Erik P.M. Roos¶, Javier Cambronero Santos**, Dimitrios Karanastasis††, Janet Plastino‡‡, François Giuliano§§ and Raymond C. Rosen¶¶

Background/Importance:

- Traditionally SF was reported as an AE (without prompting) which risks under-reporting and does not capture various domains of SF
- To measure the effect of combination therapy on sexual function, when prescribed for BPH in sexual active men.

Design: European/Australian double blind placebo controlled trial

Methods: 51 centres enrolled 250 men per arm (1:1 centralized randomization)

- **Intervention**: Dutastaride 0.5mg + Tamsulosin 0.4mg **Control:** Placebo

- Inclusion Criteria: Sexually active (w/in 4w), >50, vol >30cc, PSA 1.5-10, IPSS >12, no prior ARI use
- Validated Male Sexual Health Questionnaire (MSHQ) was used to assess various domains of male sexual function

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BJUI 2019 (121):647-58

#8

Prospective randomised placebo-controlled study of the impact of dutasteride/tamsulosin combination therapy on sexual function domains in sexually active men with LUTS secondary to BPH

Outcomes:

- Overall ***sexual health measures worsened with combination therapy*** compared to the placebo over 12months (-8.7 vs -0.7 p=<0.001)
  - Effects started at 1m follow up
- By comparing domains of sexual function
  - erectile function worsened equally in treatment/placebo (minimal change)
  - sexual satisfaction decreased slightly in treatment group (minimal change), unchanged in placebo
  - Ejaculatory disfunction accounted for overall reduction sexual health score

BJUI 2019 (121):647-58

#8

Table 4 Summary of AEs (ITT population).

AE type, *n* (%)	Placebo (*N* = 246)	DUT-TAM FDC therapy (*N* = 243)
Any AE	116 (47)	139 (57)*
Any SAE	9 (4)	27 (11)†
Any drug-related AE§	42 (17)	86 (35)‡
ED	15 (6)	21 (9)
Retrograde ejaculation	3 (1)	20 (8)
Ejaculation disorder	2 (<1)	15 (6)
Ejaculation failure	2 (<1)	6 (2)
Gynaecomastia	3 (1)	2 (<1)
Decreased libido	12 (5)	19 (8)
Decreased semen volume	2 (<1)	11 (5)
Dizziness	0 (0)	4 (2)
Any serious drug-related AE	2 (<1)	2 (<1)
Any AE leading to study medication discontinuation	20 (8)	33 (14)
Any AE leading to study withdrawal	23 (9)	33 (14)

*$P = 0.03$; †$P = 0.002$; ‡$P < 0.001$. §≥1% in any group.

Table 6 Number and type of unresolved AEs and sexual or breast AEs of special interest at 12 months (end of treatment) and 18 months (after follow-up).

AEs not resolved	Placebo (*N* = 246) Number of events		DUT-TAM FDC therapy (*N* = 243) Number of events	
	12 months	18 months	12 months	18 months
Total number of AEs	31	24	85	48
ED	15	12	18	13
Ejaculation disorders	7	5	44	23
Altered (decreased) libido	7	6	21	12
Breast disorders	2	1	2	0

Canadian Urological Association

BJUI 2019 (121):647-58

#8

Table 4 Summary of AEs (ITT population).

AE type, *n* (%)	Placebo (*N* = 246)	DUT-TAM FDC therapy (*N* = 243)
Any drug-related AE[§]	42 (17)	86 (35)[‡]
Ejaculation disorder	2 (<1)	15 (6)
Ejaculation failure	2 (<1)	6 (2)
Gynaecomastia	3 (1)	2 (<1)
Decreased libido	12 (5)	19 (8)
Decreased semen volume	2 (<1)	11 (5)
Dizziness	0 (0)	4 (2)
Any serious drug-related AE	2 (<1)	2 (<1)
Any AE leading to study medication discontinuation	20 (8)	33 (14)
Any AE leading to study withdrawal	23 (9)	33 (14)

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Ejaculation disorder

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BJUI 2019 (121):647-58

#8

Prospective randomised placebo-controlled study of the impact of dutasteride/tamsulosin combination therapy on sexual function domains in sexually active men with LUTS secondary to BPH

Take home:

- Combination therapy appears to reduce sexual health by mostly affecting ejaculation
- Rates of ED, decreased libido, dizziness are equivalent to placebo
- Gynecomastia was not a major risk
- If libido decreases (8%) and and ejaculatory dysfunction (6%) occurs with combination therapy, only 50% improve by 6months

BJUI 2019 (121):647-58

Practice Changing Articles: 2018-2019

- Men's Health: Reproductive Health / Erectile function (2)
- Functional urology: UTI, LUTS, incontinence (5)
- BPH: medical management (1)
- **Endourology/Stones (1)**
- Urology Practice
- Pediatrics

#9


ORIGINAL ARTICLE

MAYO CLINIC

Check for updates

Predictors of Symptomatic Kidney Stone Recurrence After the First and Subsequent Episodes

Lisa E. Vaughan, MS; Felicity T. Enders, PhD; John C. Lieske, MD; Vernon M. Pais, MD; Marcelino E. Rivera, MD; Ramila A. Mehta, MS; Terri J. Vrtiska, MD; and Andrew D. Rule, MD

Background/Importance:

- Original studies have quoted risk of 50% recurrence rates between 5-10years
- When counselling patients we have lacked the ability to prognosticate symptomatic recurrences.
- Identifying a need to help inform decisions on initiating lifelong commitments to stone prevention the ROK nomogram was developed

Design:

- Rochester Epidemiology Project- 3364 first time stone formers entire inpatient + outpatient records were manually reviewed between 1984-2012
- 26 Candidate predictors were initially utilized, which in this final iteration has been reduced to 13

Mayo Clin Proc. 2019 (94) 202-210

#9

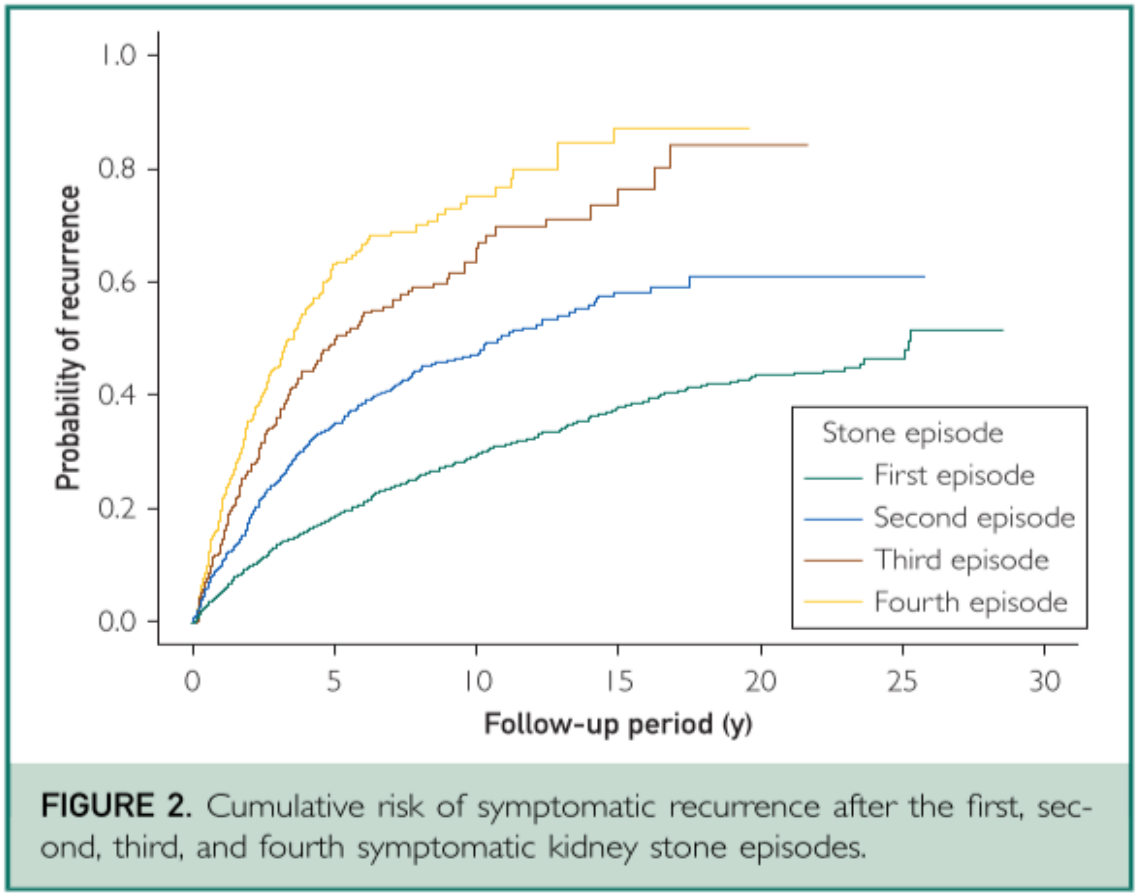


FIGURE 2. Cumulative risk of symptomatic recurrence after the first, second, third, and fourth symptomatic kidney stone episodes.

TABLE 2. Final Model for Predicting Symptomatic Recurrence Using All Stone Formers and All Episodes[a]

Characteristic	Hazard ratio (95% CI)	*P* value
Demographic and stone episode characteristics for the final model		
Age at the last stone episode (per 10 y)	0.88 (0.84-0.92)	<.001
Body mass index at the last stone episode (per 5 kg/m^2)	1.07 (1.02-1.13)	.004
Sex: male	1.25 (1.09-1.44)	.002
Family history of kidney stones	1.36 (1.19-1.55)	<.001
Incident (asymptomatic) stone on imaging before the first confirmed stone episode	1.35 (1.08-1.69)	.008
Suspected kidney stone episode[b] before the first confirmed stone episode	1.75 (1.44-2.13)	<.001
Pregnant at the last stone episode	1.82 (1.20-2.75)	.005
Any stone found to be uric acid, brushite, or struvite	1.24 (0.92-1.66)	.16
Any stone found to be calcium oxalate monohydrate	0.89 (0.78-1.02)	.08
Imaging characteristics at the last stone episode		
No. of stones in both kidneys		
0	Reference	Reference
1	1.30 (1.11-1.51)	<.001
≥2	2.03 (1.74-2.38)	<.001
Diameter of the largest kidney stone		
No kidney stone or <3 mm	Reference	Reference
3-6 mm	1.25 (1.03-1.51)	.02
>6 mm	0.96 (0.74-1.26)	.79
Pelvic or lower pole kidney stone	1.39 (1.18-1.63)	<.001
Ureterovesical junction stone	0.84 (0.74-0.96)	.01

[a]N=3699 episodes. C-index=0.687.
[b]Characteristic renal colic attributed to a stone, but no stone seen on imaging or documented as voided in the medical record.

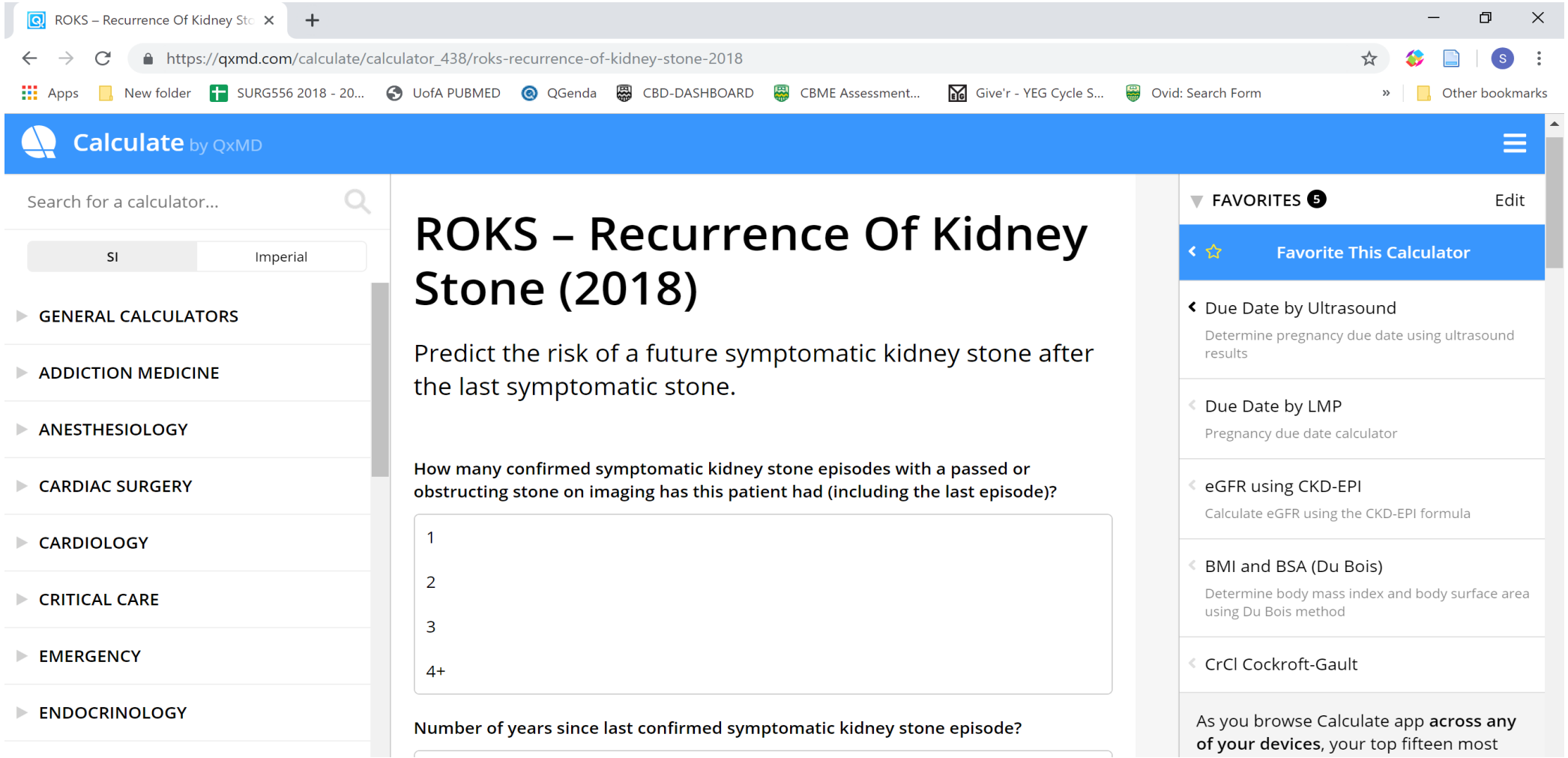
$$1-\alpha^{\exp(-1.84089+\text{points} \times 0.01019)}$$

Canadian Urological Association

Mayo Clin Proc. 2019 (94) 202-210

#9

www.Qxmd.com/calculate



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Mayo Clin Proc. 2019 (94) 202-210

Body mass index in kg/m2 at last confirmed symptomatic stone episode?

27 kg/m²

Obtain this answer using a linked calculator

Gender?

Male

Female

Any family history of kidney stones?

Yes

No

Incidental (asymptomatic) stone on imaging prior to first confirmed symptomatic stone episode?

Yes

No

Any prior stone found to be mostly calcium oxalate monohydrate with or without calcium oxalate dehydrate or hydroxyapatite?

Yes

No

Was imaging (CT scan, abdominal X-ray, or ultrasound) performed at the last symptomatic stone episode?

Yes

No

Number of stones in both kidneys?

0

1

2+

Missing

Diameter of largest kidney stone?

<3mm or unknown

3-6mm

>6mm

Missing

Symptomatic stone seen at the ureterovesical junction?

Yes

No

Missing

Stone seen in the renal pelvis or in the lower renal pole?

Yes

No

Missing

Canadian Urological Association

Mayo Clin Proc. 2019 (94) 202-210

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2+

Missing

Diameter of largest kidney stone?

No

Missing

Results

Risk

The risk of another symptomatic kidney stone episode resulting in clinical care after 0 years since the last episode is 27% at 5 years and 43% at 10 years. Among patients with the same number of past confirmed stone episodes, the average risk for another symptomatic kidney stone resulting in clinical care from the time of the last episode is 17% at 5 years, and 28% at 10 years.

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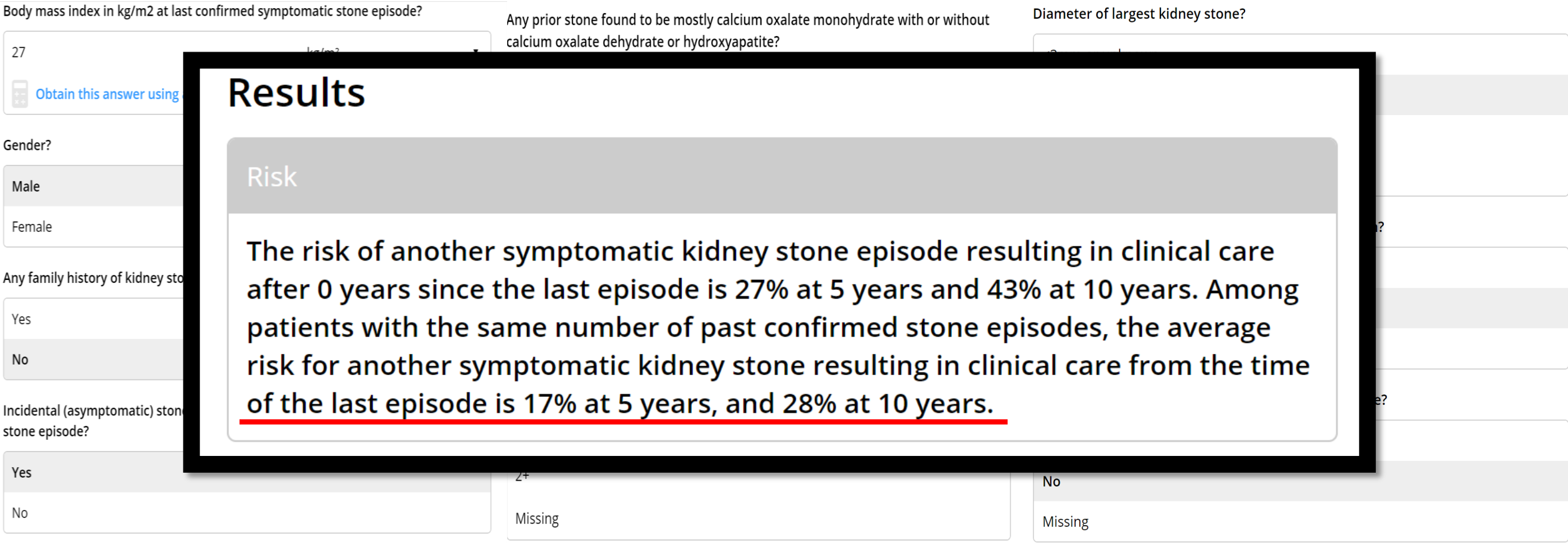
Mayo Clin Proc. 2019 (94) 202-210



Take-home message:

- This 1minute tool helps guide patient counselling on future stone risk, and may help guide discussions on prevention, surveillance, etc.
- Has yet to be externally validated, so accuracy is unknown

Canadian Urological Association

Mayo Clin Proc. 2019 (94) 202-210

Practice Changing Articles: 2018-2019

- Men's Health: Reproductive Health / Erectile function (2)
- Functional urology: UTI, LUTS, incontinence (5)
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- Endourology/Stones (1)
- **Urology Practice (1)**
- Pediatrics

#10

JOURNAL OF ENDOUROLOGY
Volume 32, Number 10, October 2018
© Mary Ann Liebert, Inc.
Pp. 907–911
DOI: 10.1089/end.2018.0459

Ureteroscopy and Percutaneous Procedures

Initial Experience with Narcotic-Free Ureteroscopy: A Feasibility Analysis

Tim Large, MD, Joshua Heiman, MS, Ashley Ross, RN, Blake Anderson, MD, and Amy Krambeck, MD

Background/Importance:

- In response to the growing concern of narcotics use and dependency through over prescription the primary objective of this study was to determine the safety of narcotic free ureteroscopy, and the resulting impact on physician work load

Design: Prospective observational study, with historic matched cohort

Methods:

- Post-operative pain protocol was to include:
  - intraop ketorolac and B&Osuppository
  - RX: diclofenac, and if stented tamsulosin/oxybutynin and Pyridium

Canadian Urological Association

J Endo 2018 (32) 907-11

#10

Initial Experience with Narcotic-Free Ureteroscopy: A Feasibility Analysis

- 52 cases were compared to a matched historic cohort of patients undergoing ureteroscopy

Table 1. Patient Demographics

Demographics	*nf-URS (52)*	*s-URS (52)*	p
Age (years—mean [range])	44.29 [12–80]	47.71 [6–86]	0.14
Stones	49 (94%)	50 (96%)	0.65
Hematuria	3 (6%)	2 (4%)	0.65
Female	28 (54%)	30 (57%)	0.69
ASA score			
1	4 (7%)	6 (11%)	0.51
2	30 (57%)	31 (59%)	0.84
3	18 (34%)	15 (28%)	0.53
Prior psychiatric diagnosis	13 (25%)	17 (32%)	0.39
Prior stone event	32 (61%)	34 (65%)	0.68
Opiate history	30 (57%)	35 (67%)	0.31
No. of opioid prescribers	1.89	2.02	0.09
1-year preoperative MED Rx (average/median), mg	1650/106	3100/106	0.16
Perioperative	*nf-URS (49)*	*s-URS (50)*	
Laterality (Right, Left, Bilateral)	16, 19, 17	17, 21, 14	
Stone location			
Mid-distal ureter	8 (16%)	8 (16%)	0.96
Midproximal ureter	5 (10%)	7 (14%)	0.84
Kidney	16 (33%)	13 (26%)	0.53
Multiple	20 (41%)	22 (44%)	0.75
Stone count			
1	18	21	0.59
>1	31	29	0.59
Largest stone average (range), mm	6.56 [1–15]	6.86 [1–15]	0.34
Stone composition			
COM	15 (30%)	23 (46%)	0.16
COM/COD	5 (10%)	6 (12%)	0.77
CAP	5 (10%)	6 (12%)	0.77
CAP/COM	21 (42%)	11 (22%)	0.03
UA	1 (2%)	1 (2%)	0.98
Cysteine	1 (2%)	1 (2%)	0.98
Struvite	1 (2%)	2 (4%)	0.57
Prestented ($n=52$)	8 (15%)	20 (38%)	0.01
Staged	2 (4%)	1 (2%)	0.57
Sheath	42 (80%)	44 (84%)	0.74
Laser	30 (57%)	32 (61%)	0.77
Basket extraction	49 (94%)	48 (92%)	0.88

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#10

Initial Experience with Narcotic-Free Ureteroscopy: A Feasibility Analysis

Table 2. Postoperative Outcomes

Postoperative outcomes	*nf-URS (52)*	*s-URS (52)*	p
Stent	44 (84%)	48 (92%)	0.23
Stent duration (average/median), days	9/5	6.6/5	0.34
Medications			
Diclofenac-50 mg	50 (96%)	0 (0%)	0.001
Tramadol-25 mg	5 (9%)	1 (1%)	0.09
Hydrocodone/oxycodone–acetaminophen	0 (0%)	52 (100%)	0.001
Discharge narcotic MED (average/median), mg	0/0	149/122	0.001
Tamsulosin	47 (90%)	46 (88%)	0.75
Oxybutynin	35 (67%)	43 (82%)	0.07
Pyridium	42 (80%)	39 (75%)	0.48
Postoperative phone call	9 (17%)	10 (19%)	0.8
Postoperative clinical consultation	5 (9%)	9 (17%)	0.25
Postoperative (additional) narcotic Rx	5 (9%)	9 (17%)	0.25
Additional Rx MED (average/median)	168/135	234/150	0.08
Our clinic	1 (1%)	0 (0%)	0.98
Local/alternate clinic	3 (5%)	6 (11%)	0.29
Emergency department	1 (1%)	3 (5%)	0.31
Stone-free rate (KUB/US-CT)	100% (16 patients)	77.4% (31 patients)	0.67

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J Endo 2018 (32) 907-11

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- On multi-variate analysis: a preceding diagnosis of psychiatric disorders was associated with a 1.9x higher likelihood of filling additional procedures (p=0.05)

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J Endo 2018 (32) 907-11

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J Endo 2018 (32) 907-11

#8

Initial Experience with Narcotic-Free Ureteroscopy: A Feasibility Analysis

Take home message:

- Narcotic stewardship is an important part of our practice, and is becoming a priority at the national and provincial level.
- Reducing the use of narcotics in high volume surgery such as ureteroscopy appears to be safe and well tolerated by patients.
- Post-operative expectations and pain strategies need to be tailored to each patient

J Endo 2018 (32) 907-11

Practice Changing Articles: 2018-2019

- Men's Health: Reproductive Health / Erectile function (2)
- Functional urology: UTI, LUTS, incontinence (5)
- BPH: medical management (1)
- Endourology/Stones (1)
- Urology Practice (1)
- **Pediatrics (3)**


Journal of Pediatric Urology (2018) 14, 407–415

Review Article

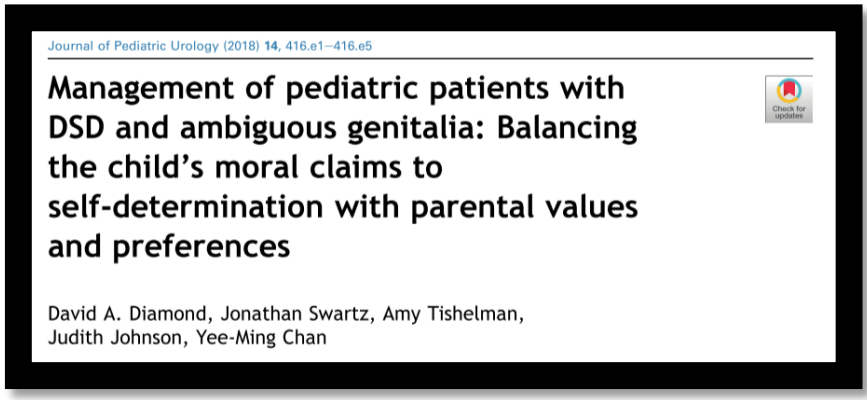
Feminizing genitoplasties: Where are we now?

Lisieux Eyer Jesus [a,b]


Journal of Pediatric Urology (2018) 14, 417.e1–417.e5

What about my daughter's future? Parental concerns when considering female genital restoration surgery in girls with congenital adrenal hyperplasia

K.M. Szymanski*, B. Whittam, M. Kaefer, H. Frady, M.P. Cain, R.C. Rink

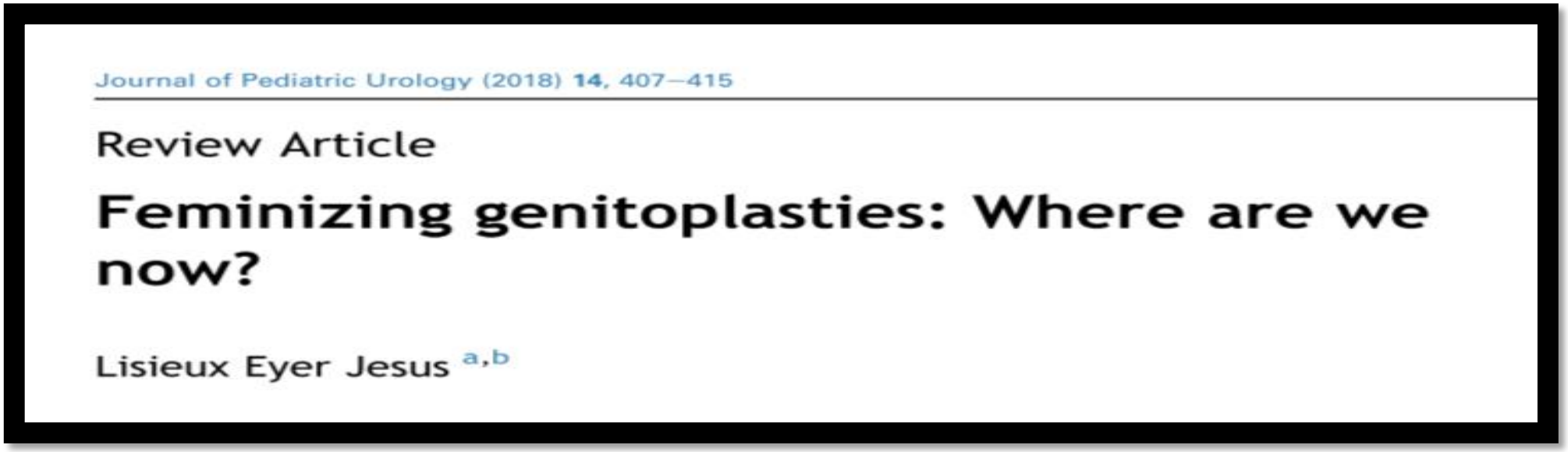

Journal of Pediatric Urology (2018) 14, 416.e1–416.e5

Management of pediatric patients with DSD and ambiguous genitalia: Balancing the child's moral claims to self-determination with parental values and preferences

David A. Diamond, Jonathan Swartz, Amy Tishelman, Judith Johnson, Yee-Ming Chan

Background/Importance:

- Currently there are diverging opinions on genital surgery in Children with DSD and ambiguous genitalia
- Suggestions that childhood genitoplasties lead to long term quality of life issues
  - Loss of sexual sensitivity
  - Dyspareunia (clitoroplasty), coital difficulties (vaginaoplasty)
- Special interest groups have suggested early surgical intervention may be a human rights issue, questioning respect for autonomy and informed consent in otherwise healthy pediatric patients.
  - Some groups have called for a moratorium on gender surgery
- Little is known about raising female children with virilized genitalia and the effects of early vs delayed vs no intervention in todays society
  - QoL
  - Mental health
  - Socialization



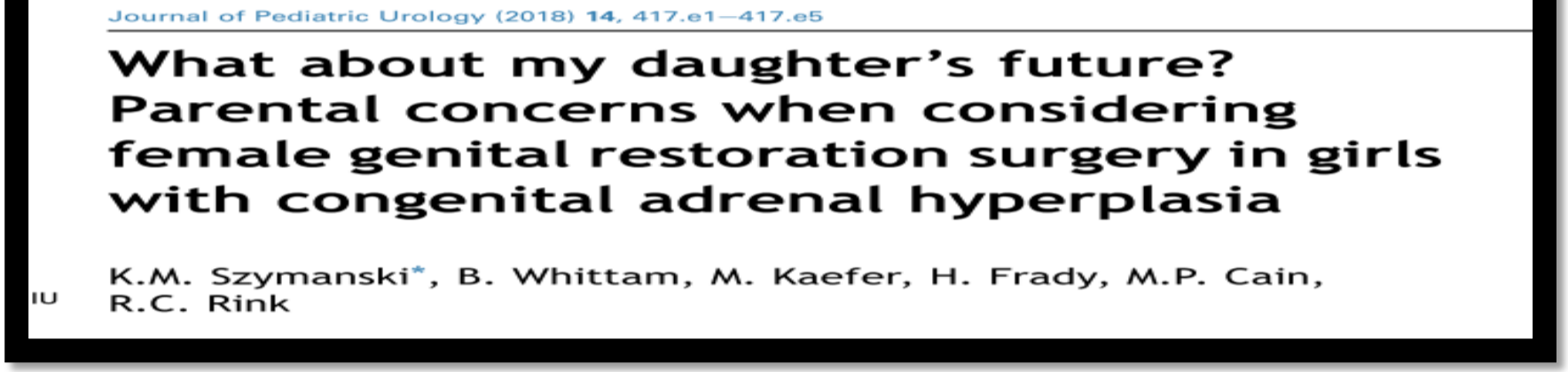
Journal of Pediatric Urology (2018) 14, 407–415

Review Article

Feminizing genitoplasties: Where are we now?

Lisieux Eyer Jesus [a,b]

- A systematic review of psychosexual results after FG, in studies which compare controls:
  - Later onset, lower frequency of sexual activity
  - Higher rates of anorgasmia (upto 40%)
  - Higher rates of bi/homosexuality
  - Sexual dysfunction associated with clitoral sensitivity impairment
- Heterogenous findings based on patient's initial diagnosis, and surgical interventions
- Complex mix of social, cultural, biologic, surgical, psychometric issues



- In order to better understand parental decision making in FG in patients with congenital adrenal hyperplasia standardized questionnaires were used
- A Delphi model was used to create a questionnaire which was then administered to 16 consecutive families of Prader 3-5 children
- With 20 patient reported outcomes being measured top issues identified included
  - Normal physical / mental development
  - Adrenal crisis
  - Side-effects of medications
- Following this included:
  - Reproductive health
  - Self image
  - Sexual health
- 'My child not having a voice in choosing surgery' was the least important issue identified by parents

- Modern options and management strategies are highlighted in a case series where a multi-disciplinary approach was used to counsel parents of complex DSD patients (mosaic karyotypes with, dysgenetic gonads, UG sinus and prominent phallus).
- Ultimately surgery involved:
  - Gonadectomy – to avoid future cancer risk
  - Vaginoplasty with preservation of phallic structures
- These options ensured that male reconstructive options remained should the child identify differently at a later date
- At approximately 2years, parents reported positive development and wellbeing

Pediatric Female Genital Reconstructive Surgery

Take-home points

- Many issues need to be considered, and decision making processes should go through a well informed multi-disciplinary team
- Parents should be involved and educated to the long term physiologic and social/psychologic implications of surgical and non-surgical options
- Surgical approaches to reconstructive surgery should avoid destructive techniques, preserving as much natural tissue as possible in case subsequent procedures are required

Practice Changing Articles: 2018-2019

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