UK & Eire Brachytherapy 2018
After the Cure - Urology

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Post Brachytherapy Issues

- Acute - AUR
- LUTS – Urgency, Frequency, Reduced flow, Nocturia, Dysuria
- Visible Haematuria
- Erectile Dysfunction
- Ejaculatory Change

New Rates of Interventions to Manage Complications of Modern Prostate Cancer Treatment in Older Men

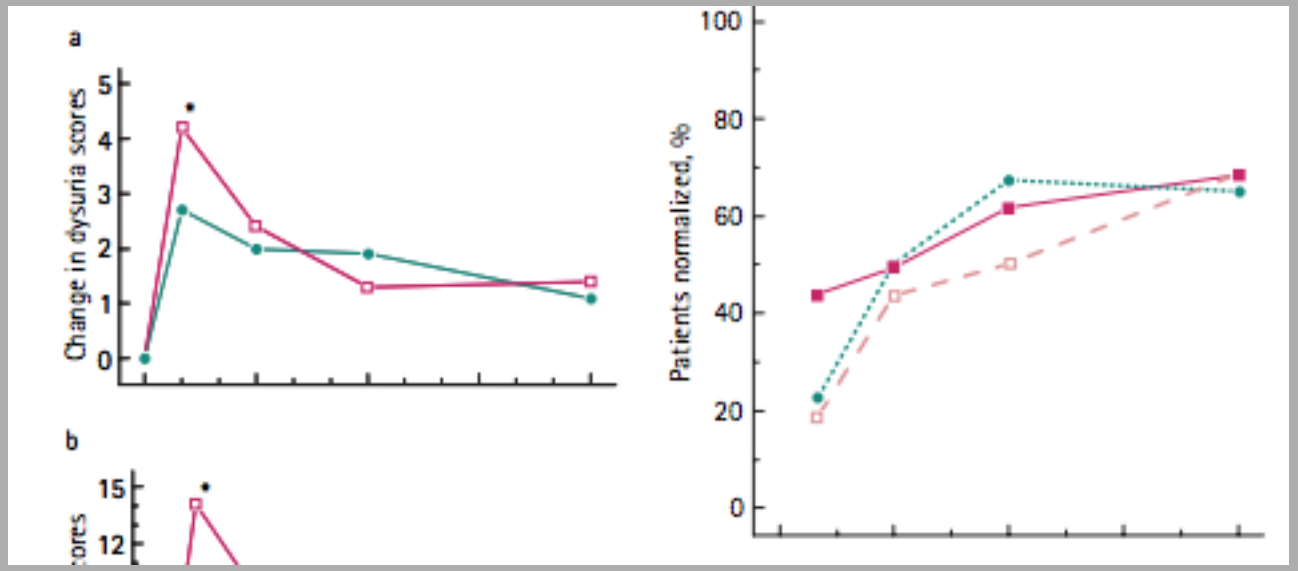
Christopher J.D. Wallis[a], *Alyson Mahar*[a], *Patrick Cheung*[b], *Sender Herschorn*[a], *Laurence H. Klotz*[a], *Ashraf Al-Matar*[a], *Girish S. Kulkarni*[c], *Yuna Lee*[d], *Ronald T. Kodama*[a], *Steven A. Narod*[e], *Robert K. Nam*[a,*]

Complication	Radical prostatectomy (total person-years: 100 420)		Radical radiotherapy (total person-years: 311 637)	
	Sum	Incidence density/ 1000 person-years	Sum	Incidence density/ 1000 person-years
Urologic procedures	20 857	242.37	85 155	319.45
Bladder catheterisation	1833	21.30	12 980	48.69
Cystotomy for bladder neck obstruction	335	3.89	3206	10.288
Diagnostic cystoscopy	8015	93.14	27 679	103.83
Endoscopic removal of foreign body/calculus	571	6.64	2642	9.91
Excision of bladder neck	235	2.73	1496	5.61
Filiform/follower urethral dilatation	835	9.70	1073	4.03
Manual catheter irrigation and declotting	1402	16.29	5919	22.20
Prostate biopsy	183	2.13	1620	6.08
TUR bladder neck	1364	15.85	595	2.23

AUR

- Selection and Pre-brachytherapy TUR/BNR
- Generally in first 15 days postop
- Planning to minimise needle number and practicalities of reducing needle insertions
- Even without seeds most TP Biopsy series with 32 core report 2-5% AUR so we are unlikely to further improve
- Majority Self limiting, ISC usually possible

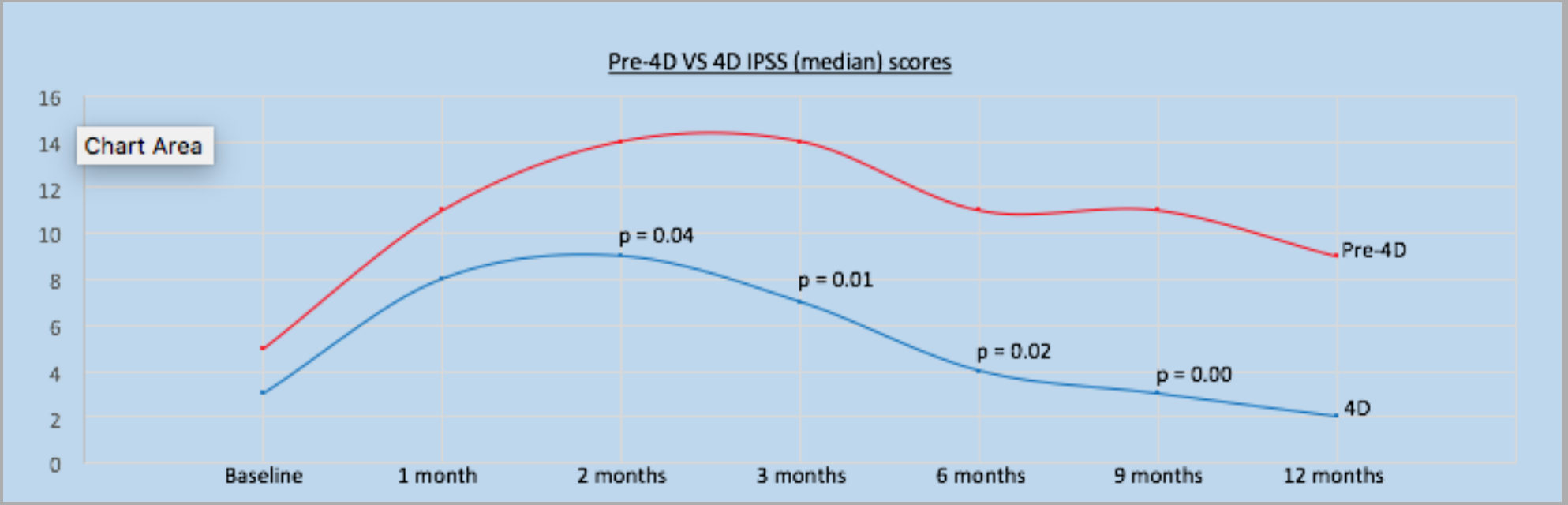
Acute Toxicity



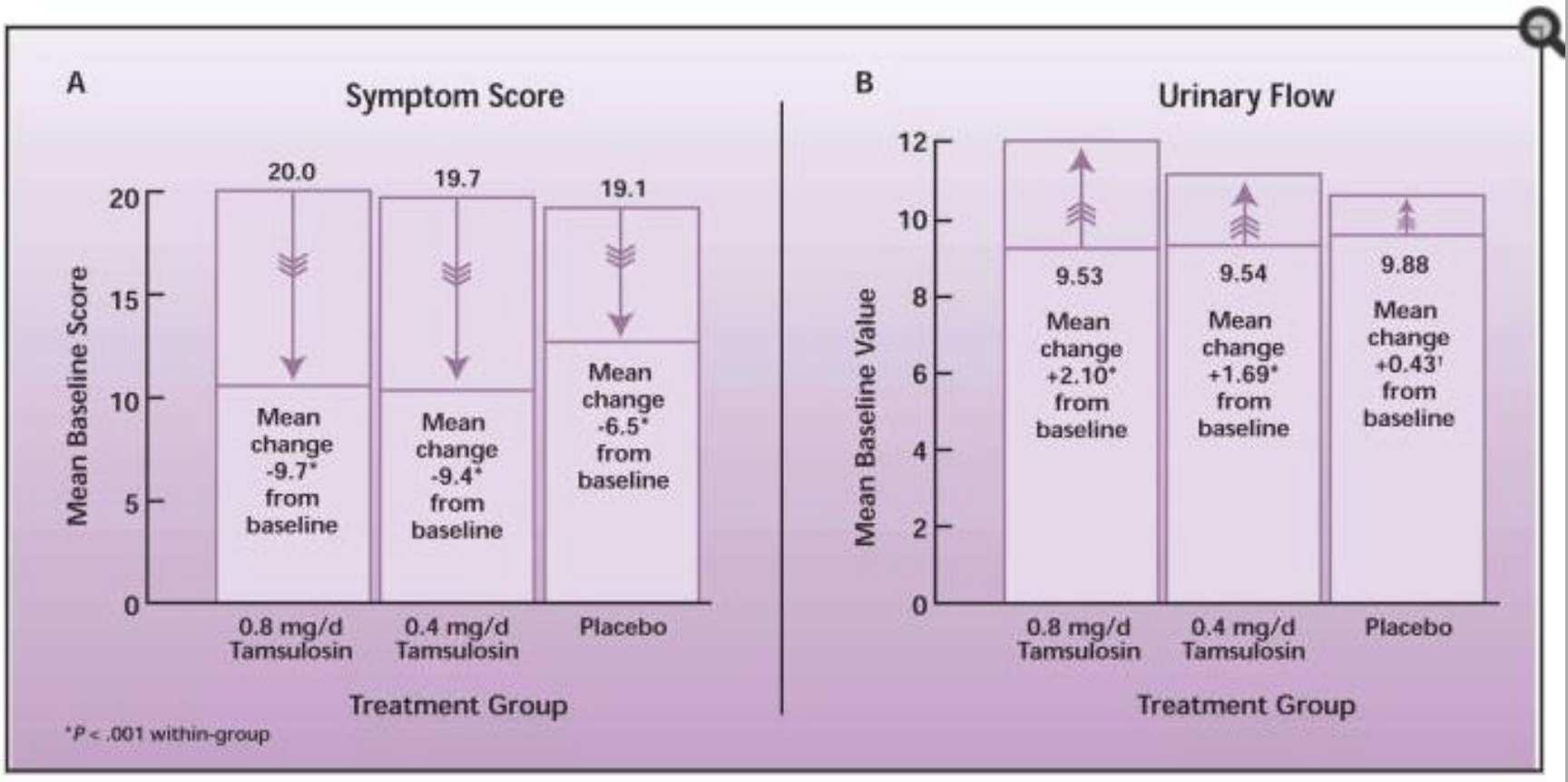
- Dysuria – Common – 50-80% 4 wk
- Mirrors IPSS Resolution
- Isotope, +EBRT, AD, D90, Urethral dose do not predict for dysuria
- Merrick – alpha blockade may reduce severity
- Persistant – think stricture

Urgency/Frequency

- Urgency/Frequency
- Often a significant component of early urinary toxicity

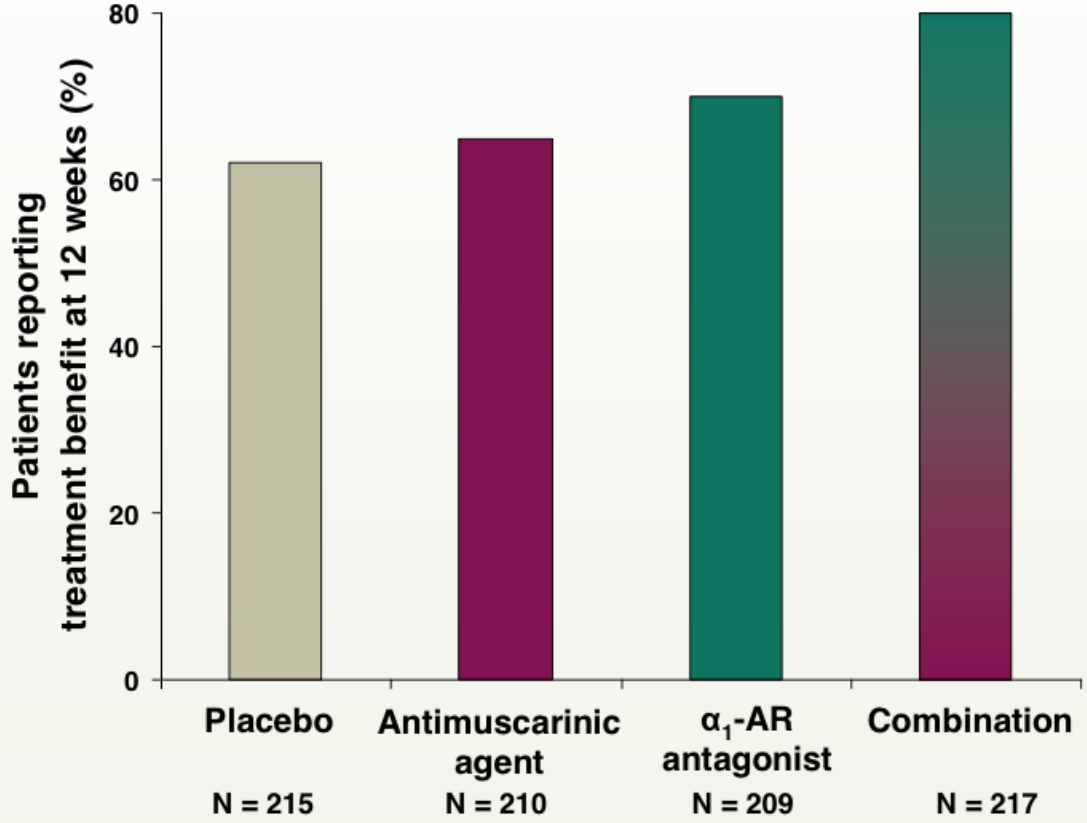


TAMSULOSIN 800mcg ?



α_1-AR antagonist + antimuscarinic agent beneficial in patients with LUTS + overactive bladder (OAB) (1)

- IPSS ≥ 12; IPSS QoL ≥ 3
- frequency ≥ 8 micturations/24h; urgency ≥ 3 episodes/24 h

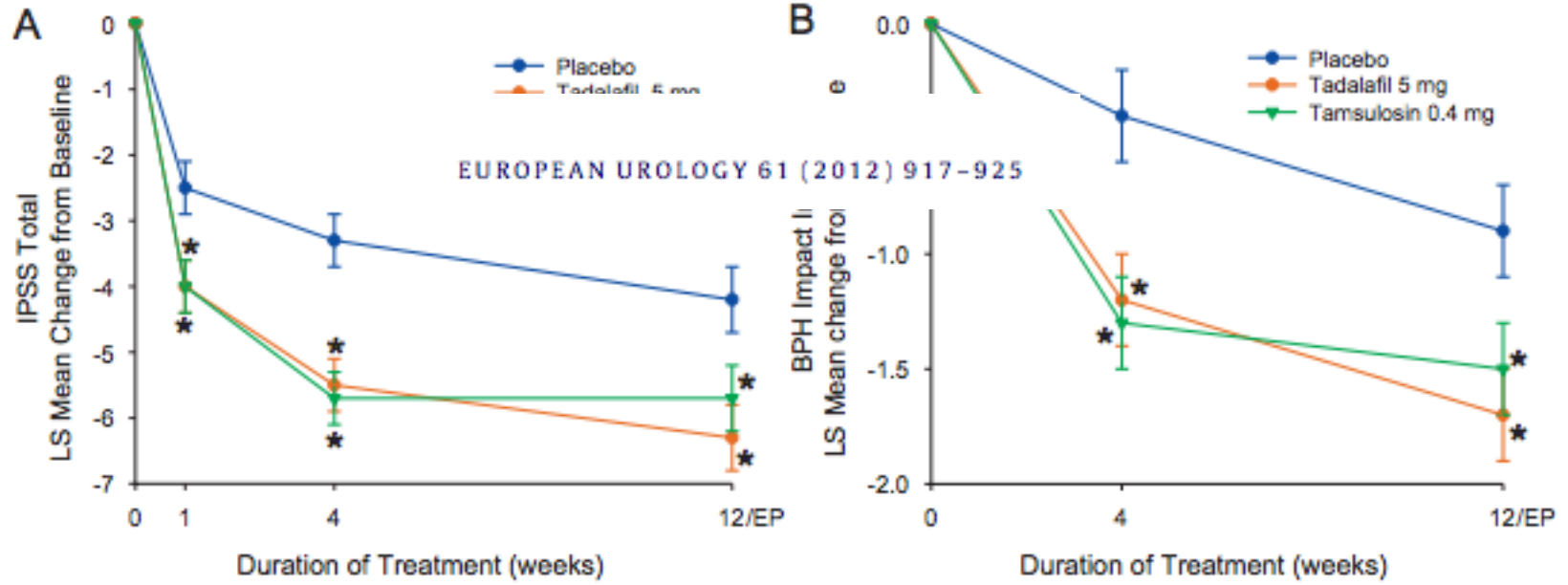


Kaplan SA et al. JAMA 2006;296:2319-28

Kaplan et al. JAMA 2006; 15: 2319-28

Monotherapy with Tadalafil or Tamsulosin Similarly Improved Lower Urinary Tract Symptoms Suggestive of Benign Prostatic Hyperplasia in an International, Randomised, Parallel, Placebo-Controlled Clinical Trial

Matthias Oelke [a,*], *François Giuliano* [b], *Vincenzo Mirone* [c], *Lei Xu* [d], *David Cox* [d], *Lars Viktrup* [d]



EUROPEAN UROLOGY 61 (2012) 917–925

Fig. 3 – Changes from baseline in (A) total International Prostate Symptom Score and (B) Benign Prostatic Hyperplasia Impact Index. Data represent the least squares mean change plus or minus standard error.
LS = least squares; EP = end point; ANCOVA = analysis of covariance.
*** $p < 0.05$ versus placebo based on ANCOVA.**

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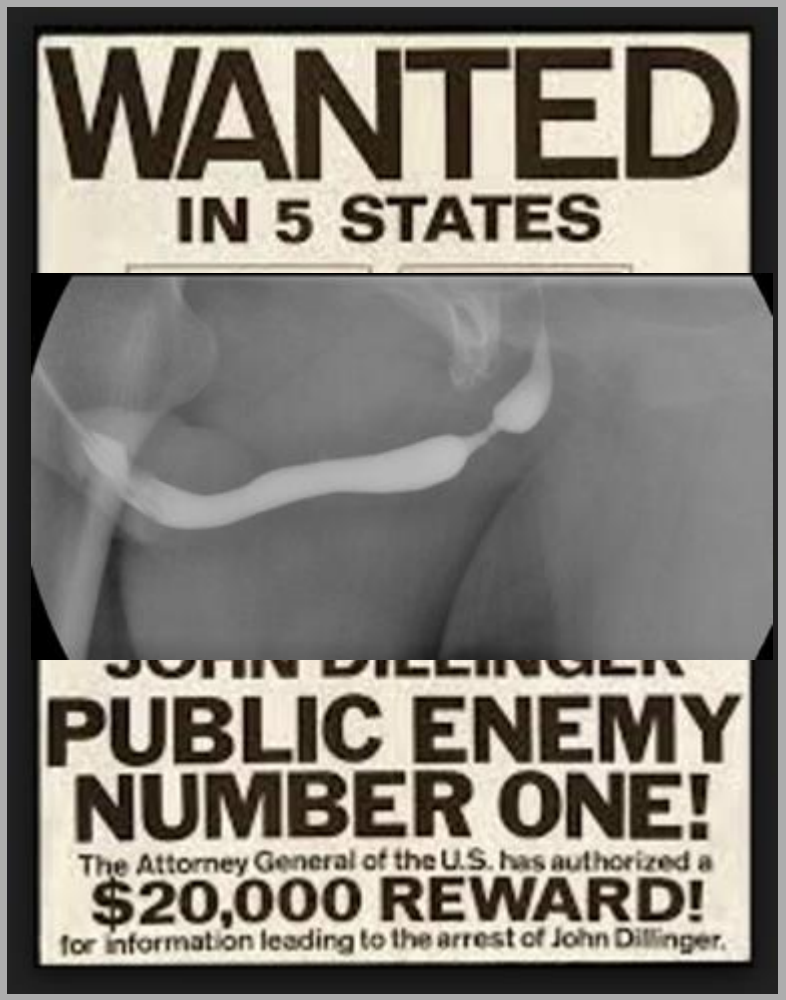
Efficacy of tadalafil for treating chronic prostatitis/chronic pelvic pain syndrome in patients without erectile dysfunction

Eur Urol Suppl 2017; 16(3);e453

Late Effects

- I^{125} Seed Monotherapy Tight profile of Late Effects
- Stricture – Number 1 Problem – 70-80% of late problems, Usually Occur Within 1-3Years
- Haematuria – Usually Self limiting
- ED – often limited uptake of multimodality treatment
- Pain



Mictiometry

Family name: [redacted]

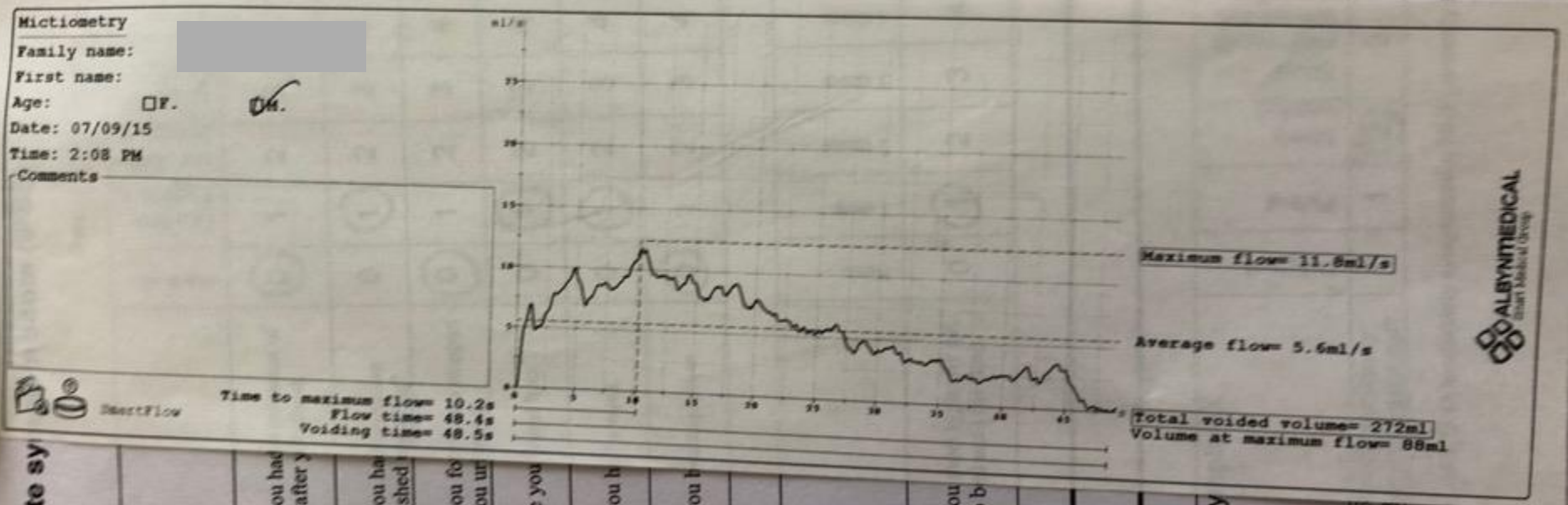
First name:

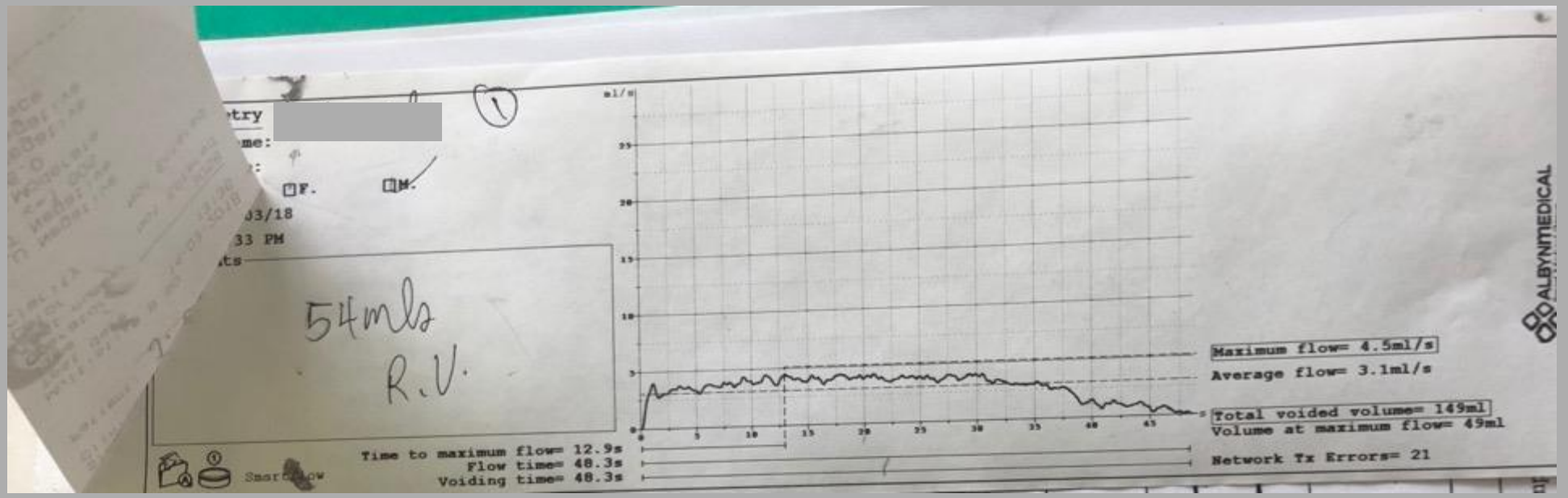
Age: ☐F. ☑M.

Date: 07/09/15

Time: 2:08 PM

Comments

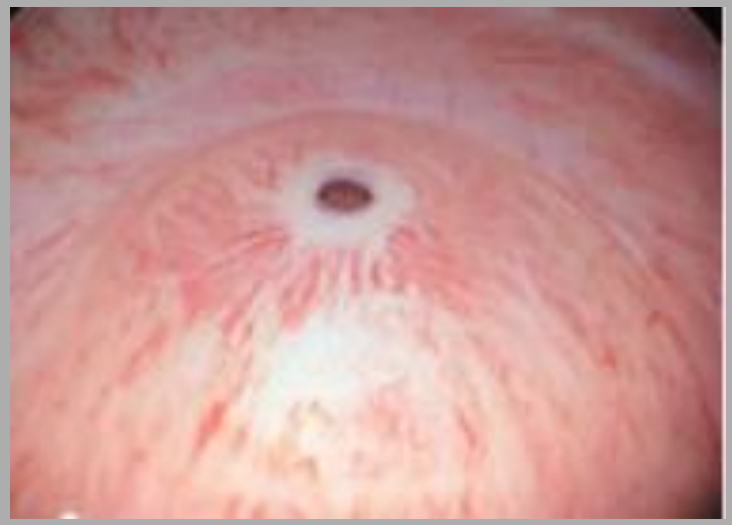


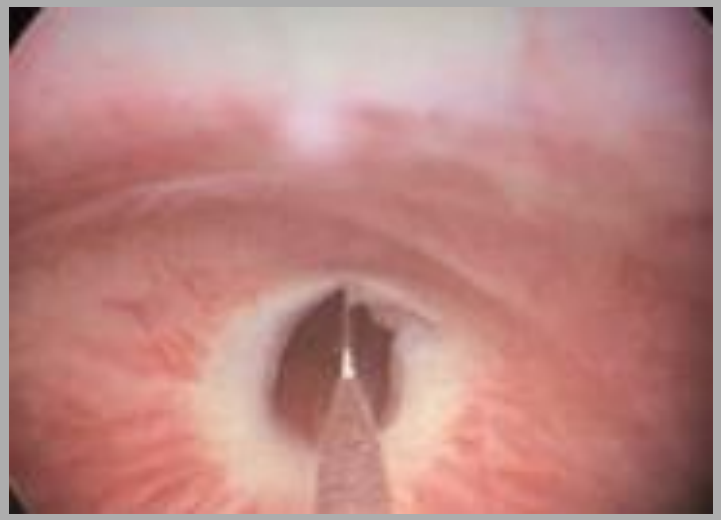

F.
M.
54mls
R.V.
ml/s
Maximum flow= 4.5ml/s
Average flow= 3.1ml/s
Total voided volume= 149ml
Volume at maximum flow= 49ml
Network Tx Errors= 21
Time to maximum flow= 12.9s
Flow time= 48.3s
Voiding time= 48.3s
ALBYNMEDICAL

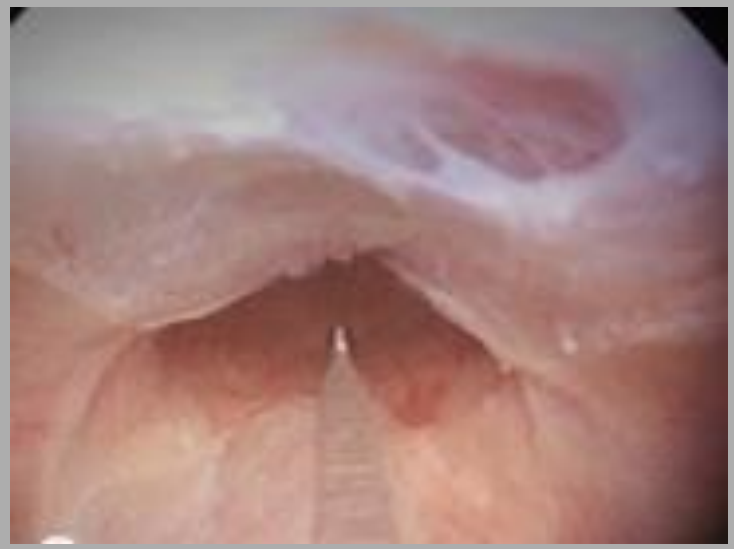
Incise or Dilate

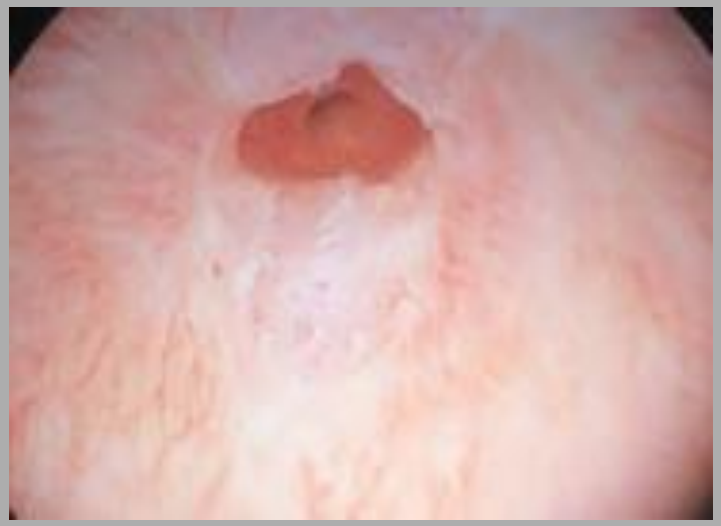
- Combination Probably best
- Intermittent Self Dilation for 12m to maximize benefit
- >12m palliation but may beat redo

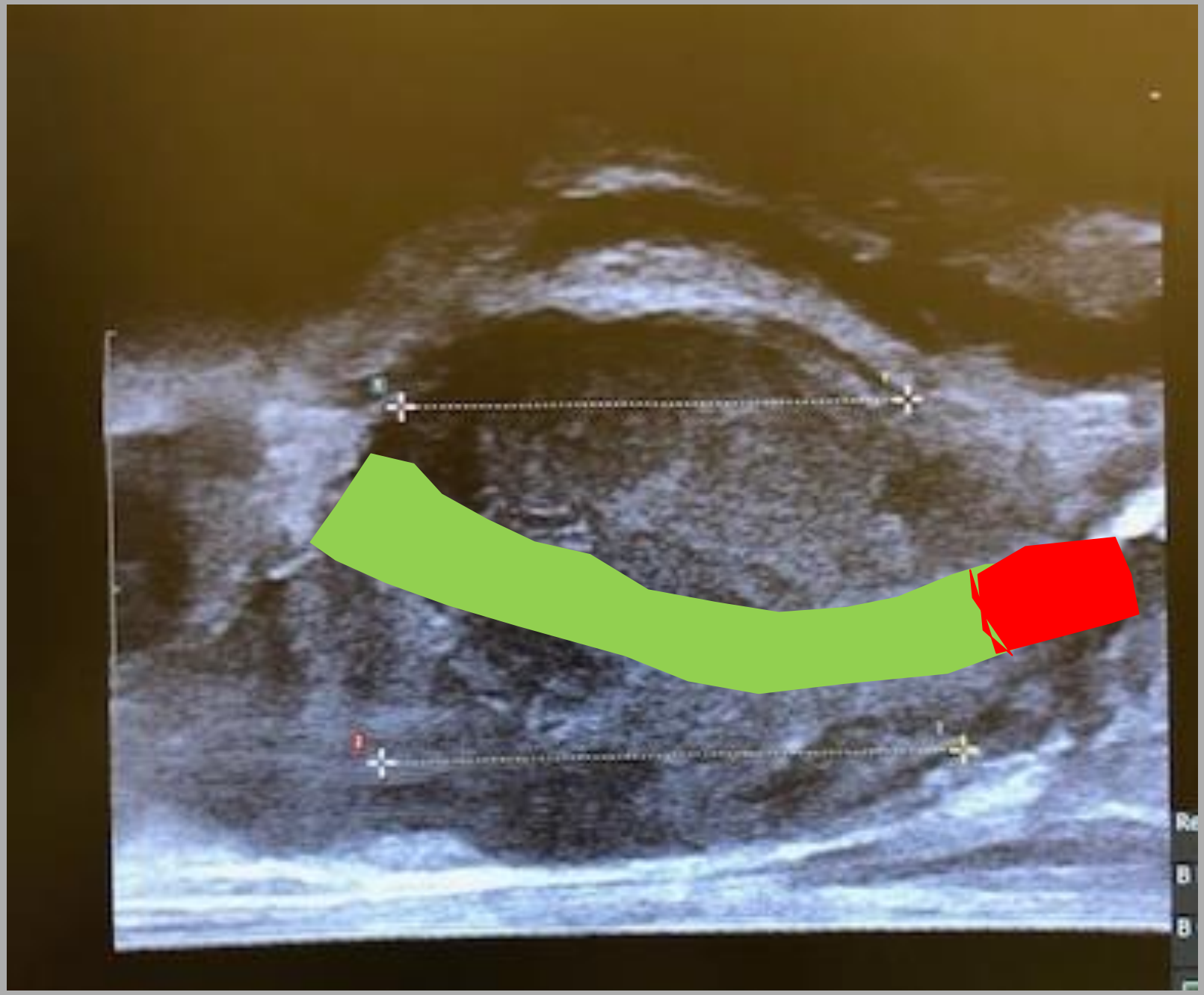
Urethral Stricture











Urethral Strictures

Review Article
Investig Clin Urol 2016;57:309-315.
http://dx.doi.org/10.4111/icu.2016.57.5.309
pISSN 2466-0493 • eISSN 2466-054X

INVESTIGATIVE AND CLINICAL UROLOGY
ICUROLOGY

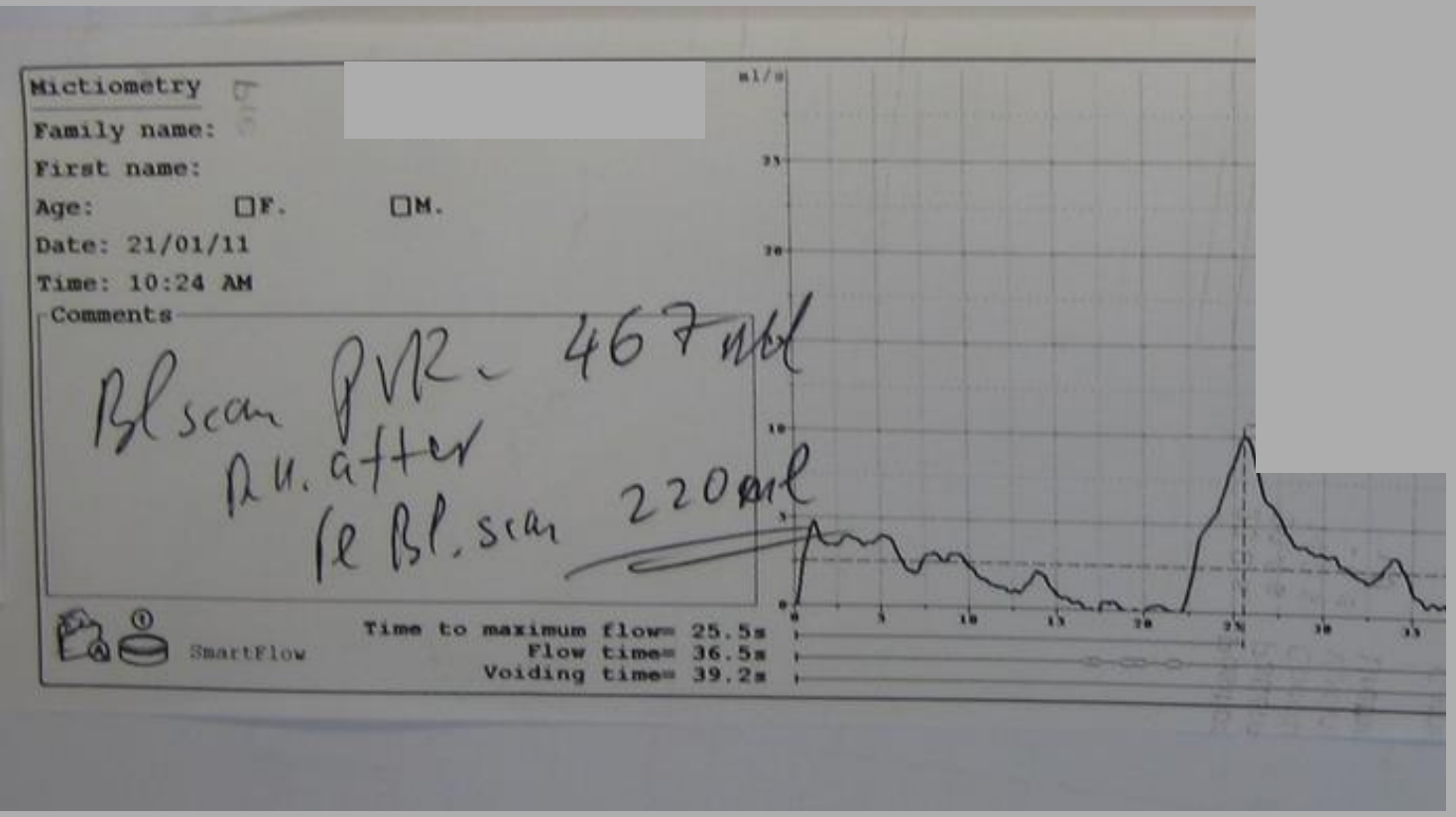
Urethral strictures after radiation therapy for prostate cancer

Felix Moltzahn[1], Alan Dal Pra[2], Marc Furrer[1], George Thalmann[1], Martin Spahn[1]
Departments of [1]Urology and [2]Radiation-Oncology, Inselspital Bern, Bern, Switzerland

- If endoscopic management fails Anastamotic or buccal mucosal urethroplasty are options
- 90-day complication rate of 31.4
- Adverse change in continence occurred in 25.7 % of patients (13.3 % in those without prior TURP)
- New ED 30-40%
- UCL Not keen

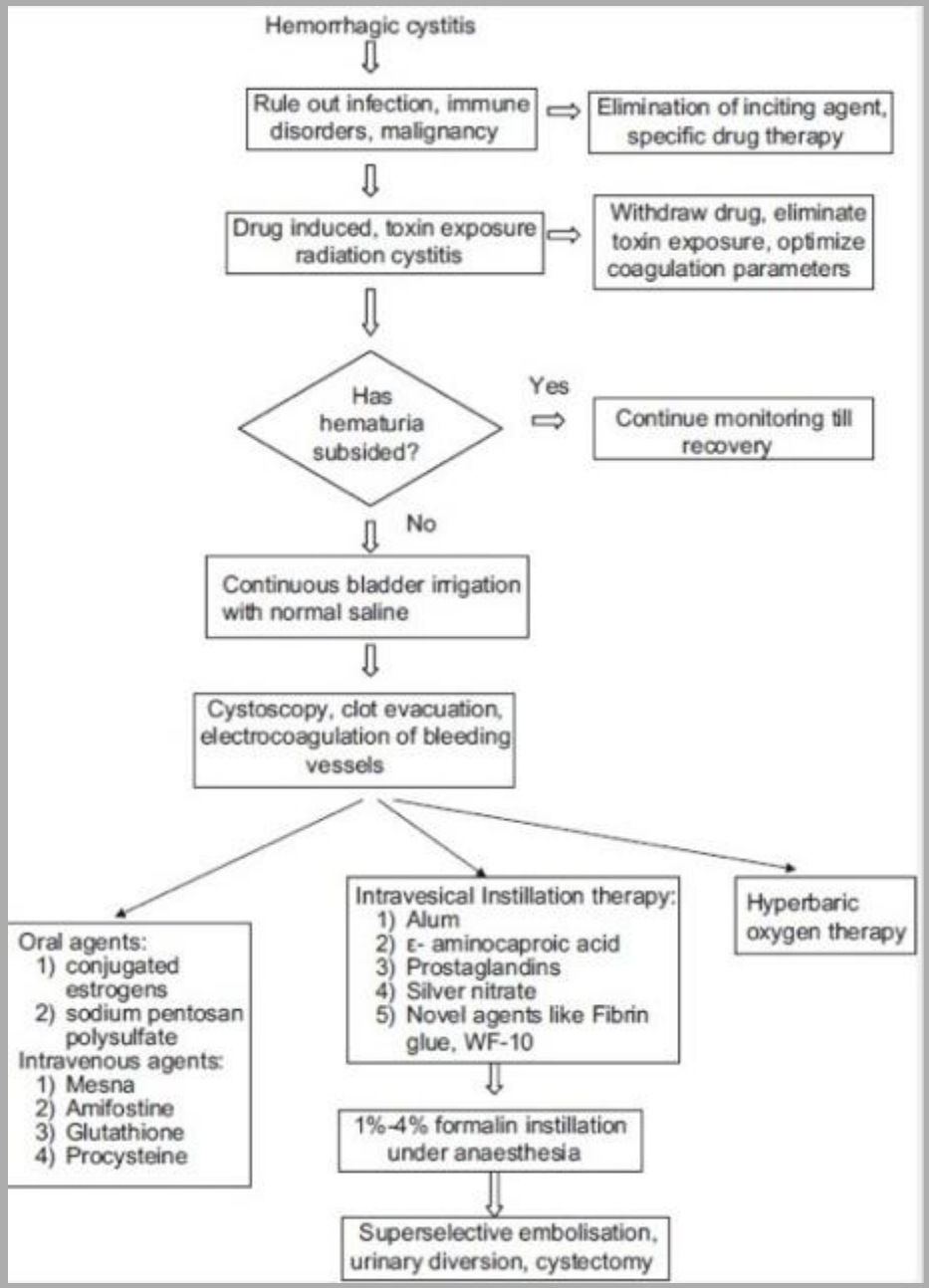
Beware the ‘Atypical Stricture’

- 2nd Malignancy is rare but does occur (<0.1 % Monotherapy LDR)
- Usually in bladder base
- Often occlusive tissue and flat
- False reassurance of undetectable PSA


Mictiometry
Family name:
First name:
Age: ☐F. ☐M.
Date: 21/01/11
Time: 10:24 AM
Comments
Bl scan PVR - 467 ml
RU after
Rt Bl. scan 220 ml
SmartFlow
Time to maximum flow= 25.5s
Flow time= 36.5s
Voiding time= 39.2s

Visible Haematuria

- Combined Treatment including EBRT Increases Risk
- Bladder Cancer may have worse prognosis in the post RT group (Peak Incidence 5-15 years)
- Co-administration or oral anticoagulation most predictive RF


Hemorrhagic cystitis
Rule out infection, immune disorders, malignancy
Elimination of inciting agent, specific drug therapy
Drug induced, toxin exposure radiation cystitis
Withdraw drug, eliminate toxin exposure, optimize coagulation parameters
Has hematuria subsided?
Yes
Continue monitoring till recovery
No
Continuous bladder irrigation with normal saline
Cystoscopy, clot evacuation, electrocoagulation of bleeding vessels
Oral agents:
1) conjugated estrogens
2) sodium pentosan polysulfate
Intravenous agents:
1) Mesna
2) Amifostine
3) Glutathione
4) Procysteine
Intravesical Instillation therapy:
1) Alum
2) ε- aminocaproic acid
3) Prostaglandins
4) Silver nitrate
5) Novel agents like Fibrin glue, WF-10
Hyperbaric oxygen therapy
1%-4% formalin instillation under anaesthesia
Superselective embolisation, urinary diversion, cystectomy

Pain Management

- Define – What (Dysuria, Rectal Pain, Ache)
- Associations with filling and voiding
- Diagnose – GA Cystoscopy and Dilate often helps even if stricture not seen
- Manage
- Simple Analgesia (Ibuprofen Nocturia)
  Amitriptyline 10mg OD ->75mg OD
  Pregabalin
- Caffeine and Alkaline diet some help

NIH Chronic Prostatitis Symptom Index (NIH-CPSI)

Pain or Discomfort

1. In the last week, have you experienced any pain or discomfort in the following areas?

	Yes	No
a. Area between rectum and testicles (perineum)	☐ 1	☐ 0
b. Testicles	☐ 1	☐ 0
c. Tip of the penis (not related to urination)	☐ 1	☐ 0
d. Below your waist, in your pubic or bladder area	☐ 1	☐ 0

2. In the last week, have you experienced:

	Yes	No
a. Pain or burning during urination?	☐ 1	☐ 0
b. Pain or discomfort during or after sexual climax (ejaculation)?	☐ 1	☐ 0

3. How often have you had pain or discomfort in any of these areas over the last week?

- ☐ 0 Never
- ☐ 1 Rarely
- ☐ 2 Sometimes
- ☐ 3 Often
- ☐ 4 Usually
- ☐ 5 Always

4. Which number best describes your AVERAGE pain or discomfort on the days that you had it, over the last week?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

NO PAIN — PAIN — AS BAD AS YOU CAN IMAGINE

Urination

5. How often have you had a sensation of not emptying your bladder completely after you finished urinating, over the last week?

- ☐ 0 Not at all
- ☐ 1 Less than 1 time in 5
- ☐ 2 Less than half the time
- ☐ 3 About half the time
- ☐ 4 More than half the time
- ☐ 5 Almost always

6. How often have you had to urinate again less than 2 hours after you finished urinating, over the last week?

- ☐ 0 Not at all
- ☐ 1 Less than 1 time in 5
- ☐ 2 Less than half the time
- ☐ 3 About half the time
- ☐ 4 More than half the time
- ☐ 5 Almost always

Impact of Symptoms

7. How much have your symptoms kept you from doing the kinds of things you would usually do, over the last week?

- ☐ 0 None
- ☐ 1 Only a little
- ☐ 2 Some
- ☐ 3 A lot

8. How much did you think about your symptoms, over the last week?

- ☐ 0 None
- ☐ 1 Only a little
- ☐ 2 Some
- ☐ 3 A lot

Quality of Life

9. If you were to spend the rest of your life with your symptoms just the way they have been during the last week, how would you feel about that?

- ☐ 0 Delighted
- ☐ 1 Pleased
- ☐ 2 Mostly satisfied
- ☐ 3 Mixed (about equally satisfied and dissatisfied)
- ☐ 4 Mostly dissatisfied
- ☐ 5 Unhappy
- ☐ 6 Terrible

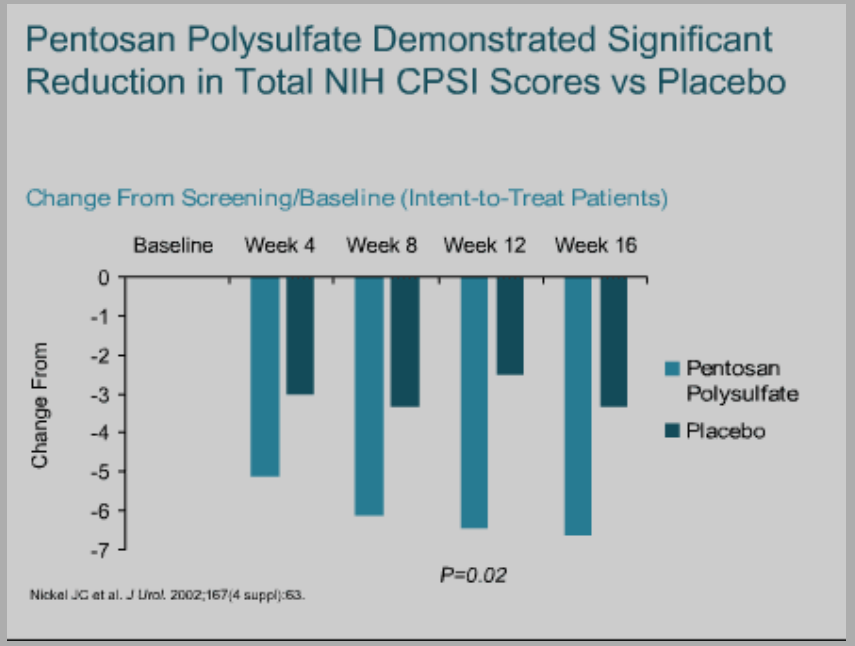
Scoring the NIH Chronic Prostatitis Symptom Index Domains

Pain: Total of items 1a, 1b, 1c, 1d, 2a, 2b, 3, and 4 =

Urinary Symptoms: Total of items 5 and 6 =

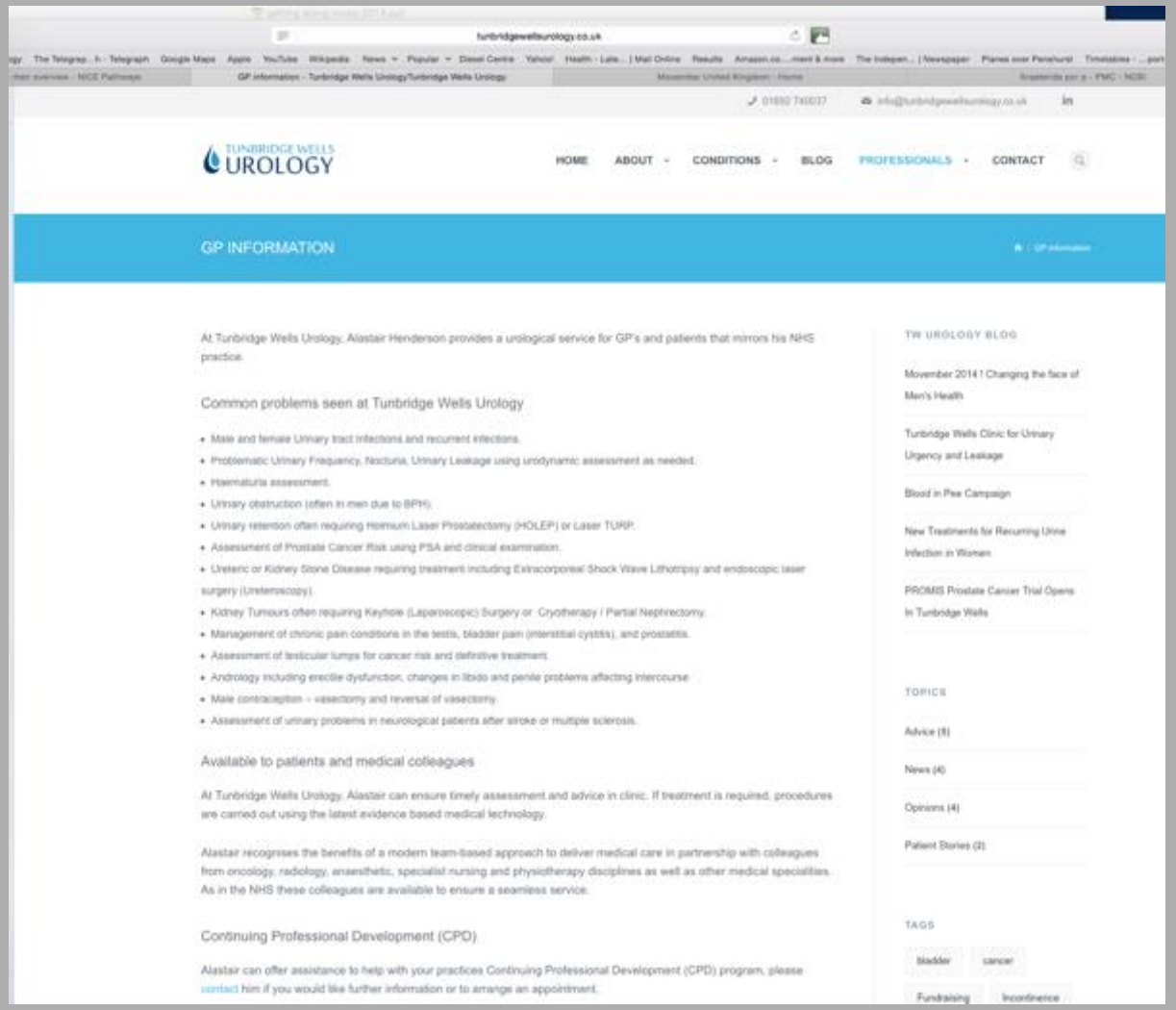
Quality-of-Life Impact: Total of items 7, 8, and 9 =

Other Options



Beware your friends

Questions ? New Resources ? Contact?



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