Norfolk and Norwich University Hospitals
NHS Foundation Trust

Ketamine Bladder MDT working – the now and the ideal

RUTH DOHERTY

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Objectives

- Joint working with 3 subspecialties; Substance Misuse, Pain Team and Hepatology
- The UROKET clinic at NNUH
- Why setting up a specialist clinic is a good idea…. And a bad idea

The UROKET Clinic at NNUH

- Set up in 2021
- Increasing numbers of Ketamine patients in FNUU clinic without correct resources – cohorted
- Not commissioned
- Previously SM contacted prior to OPA but funding reduced to F/U and patients lost with no target
- Is this the ‘ideal’?

Dear Patient,

Your GP has asked if we might see you for assessment and help with managing your symptoms thought to be secondary to Ketamine bladder syndrome. I enclose a copy of the information leaflet explaining a bit more about this condition, and the clinic that we plan to see you in. I have also requested an ultrasound scan of your kidneys to take place prior to us sending you a clinic appointment. Please see enclosed a blood test form for you to have some bloods taken also – I will only write with these results if they are abnormal.

I will copy this letter to our Substance Misuse Nurse, Marita Isaac. One of our Substance Misuse team will be present during your clinic appointment.

Kind regards.

Enclosed – Ketamine PIL +/- Bloods Form

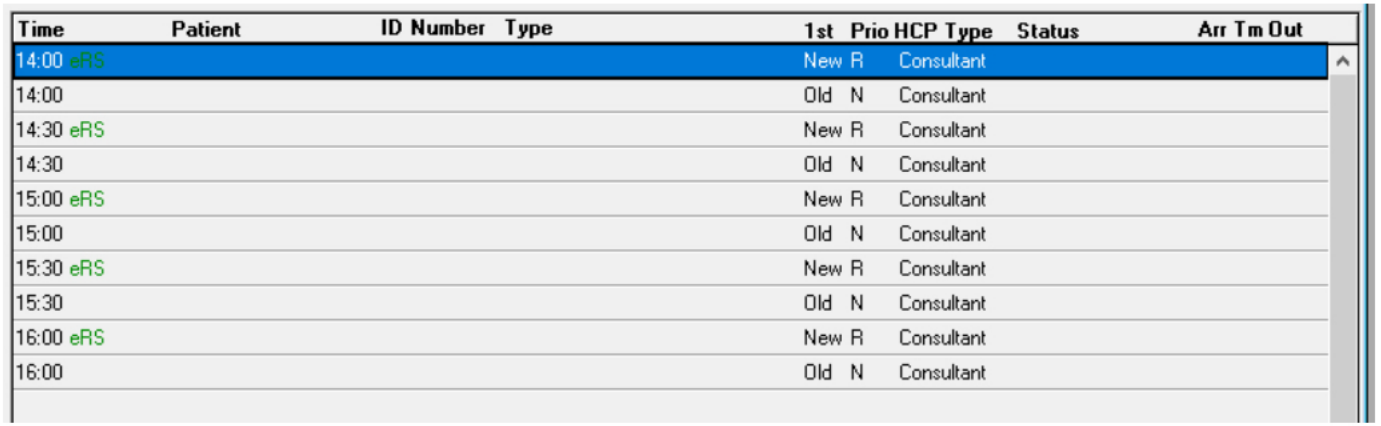
- USS and bloods are a test of attendance
- Triaging urgency after bloods and USS
- DNA rates much improved at the cost of admin time
- Joined up Substance Misuse in hospital and community
- Weekly Ketamine Groups and 1:1 working
- Link in with Marita to feed back to clinic when abstinent (if needed)
- Is this a good use of our time?

Between 01/01/2024 to 01/01/25:

Clinic
URONEU
UROKET
UFRDD
UROCED

- Jan-Ju
- July-D
- Jan-Ju
- July-D
- 2025 s

Clinic template below (5 new + 5 follow-ups):



Time	Patient	ID Number	Type	1st	Prio	HCP Type	Status	Arr Tm	Out
14:00 eRS				New	R	Consultant			
14:00				Old	N	Consultant			
14:30 eRS				New	R	Consultant			
14:30				Old	N	Consultant			
15:00 eRS				New	R	Consultant			
15:00				Old	N	Consultant			
15:30 eRS				New	R	Consultant			
15:30				Old	N	Consultant			
16:00 eRS				New	R	Consultant			
16:00				Old	N	Consultant			

The role of Urology

- Education
- Seriousness of the condition
- Upper tract surveillance, arranging cystoscopies, onward referrals
- Treating symptoms – mainly pain
- Reconstruction (3/200)

You may have your urine tested at the appointment to check for drugs of misuse. We will assess your symptoms and see whether you need any tests to look for kidney and bladder damage due to ketamine use. This may involve booking outpatient appointments for kidney scans or general anaesthetic bladder assessments, depending upon how your symptoms are.

Once you have been seen in the clinic, arrangements for ongoing support and contact with the Substance Misuse team at NNUH will be made.

Where can I get more help?

Change Grow Live (CGL) – 01603 514096

"Norfolk Alcohol and Drug Behaviour Change Service is a free and confidential service for adults (including offenders), families, carers and affected others"

In Suffolk Turning Point Lowestoft Hub, Woodbury House, Mill Road, Lowestoft, NR33 0PP

Call us on 01502 531138 or visit www.turning-point.co.uk

Samaritans - 116 123 (UK) calls are free https://www.samaritans.org/

"If there is something troubling you, then get in touch. We're here 24 hours a day, 365 days of the year"

Health Enquires - 111

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BJUI
BJU International

Review

British Association of Urological Surgeons Consensus statements on the management of ketamine uropathy

Mohammed Belal[1], Alison Downey[2], Ruth Doherty[3], Ased Ali[2], Hashim Hashim[4], Andy Kozan[5], Magda Kujawa[6], Mahreen Pakzad[7], Tina Rashid[8], Nadir Osman[10], Arun Sahai[9], Suzanne Biers[11] on behalf of the BAUS Section of Female, Neurological and Urodynamic Urology

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Objectives

To provide guidance in the form of consensus statement in the management of ketamine uropathy.

Methods

A literature review of ketamine uropathy was performed. The consensus method was of a modified nominal group technique and has been use in the previous British Association of Urological Surgeons (BAUS) consensus documents and was led by the Female, Neurological and Urodynamic Urology Section of the BAUS.

Results

A number of consensus statements detailing the assessment and management of urological complications relate to the recreational use of ketamine (ketamine uropathy) in both elective and emergency urology settings.

Conclusion

Comprehensive management pathway for ketamine-related urinary tract dysfunction and uropathy has been detailed.

Keywords

ketamine bladder dysfunction, ketamine uropathy, lower urinary tract symptoms, Ketamine cystitis, ureteric stricture, urodynamics

The British Association of Urological Surgeons

Ketamine Bladder (Known as Ketamine Urinary Tract Syndrome) - What You Need to Know

You might have bladder problems because of using ketamine. We prefer the term "Ketamine Urinary Tract Syndrome" as Ketamine doesn't just affect the bladder – it affects the kidneys and the tubes that drain them too. This leaflet explains why that happens and what you can do to feel better. It was written with the help of expert urologists (doctors who treat problems with the bladder, kidneys, and related parts) to make sure it follows the best care advice in the UK.

It's here to help you understand what's happening, but it doesn't replace what your doctor or nurse tells you, always ask them if you're unsure.

We've tried our best to make sure everything in this leaflet is correct, but sometimes things change, or small mistakes can happen. BAUS (the British Association of Urological Surgeons) can't be responsible if something in here isn't right for you.

Please remember: The BAUS team are not doctors, so they can't answer medical questions. If you're worried or have any questions, speak to your Urologist, Specialist Nurse, or GP.

Pain Team

- Historic joint SM and Pain clinic decommissioned in 2019
- Involved from conception – case discussions
- Protocol developed with Pain Cons with special interest
- Useful to send to GP's
- Reluctance to use pregabalin
- Does reduce opiate prescribing
- IS THIS IDEAL? Probably don't need to be be present for every clinic but ? Sub-clinics for difficult patients

- **Persistent pain associated with Ketamine bladder: Suggested protocol**

After confirmation of the diagnosis and appropriate advice on cessation of Ketamine and MDT support if offered as necessary to the individual, one could consider a few medication options:

Visceral pain situation often best responds to the following plan:

- It is important to advice patients that these are not pain killers but pain modulators and the expectation is about **30-50% pain improvement** with associated QOL improvement and symptom control
- **Amitriptyline/ Nortriptyline** (if Amitriptyline not tolerated) starting at 10mg nocte and increasing in 10mg increments to a maximum of 50mg/d; common side effects like dry mouth, drowsiness(sleepiness) and dizziness should be advised to patients. Given many of our patients are much younger cohort, we do not often see these adverse effects. Sleep is often a positive effect in this cohort
  - https://www.fpm.ac.uk/sites/fpm/files/documents/2020-07/Amitriptyline2017-v2.1.pdf
  - https://www.fpm.ac.uk/sites/fpm/files/documents/2020-07/Nortriptyline2017-v2.1.pdf
- **Gabapentin** could be suitable second choice or in addition to the above; Gabapentin needs titration by starting at 100mg TDS and increasing in 100mg increments to begin with up to 300mg TDS and then 300mg increments. Often those who respond with meaningful benefit do so at lower doses (900-1200mg/d). If they don't respond to these doses, they are unlikely to benefit from continued escalation https://www.fpm.ac.uk/sites/fpm/files/documents/2021-04/Gabapentin%202021.pdf
- **Pregabalin-** is another option and could be started at 50mg BD and increased in 50mg increments to a maximum of 150mg BD; This may be particularly suitable option in those with anxiety background given it is licenced for generalised anxiety disorders too. https://www.fpm.ac.uk/sites/fpm/files/documents/2021-04/Pregabalin%202021.pdf
- **Avoid Duloxetine**
- Refer for specialist Pain Team review with Multidisciplinary support as these patients do need ongoing support from with wider MDT team

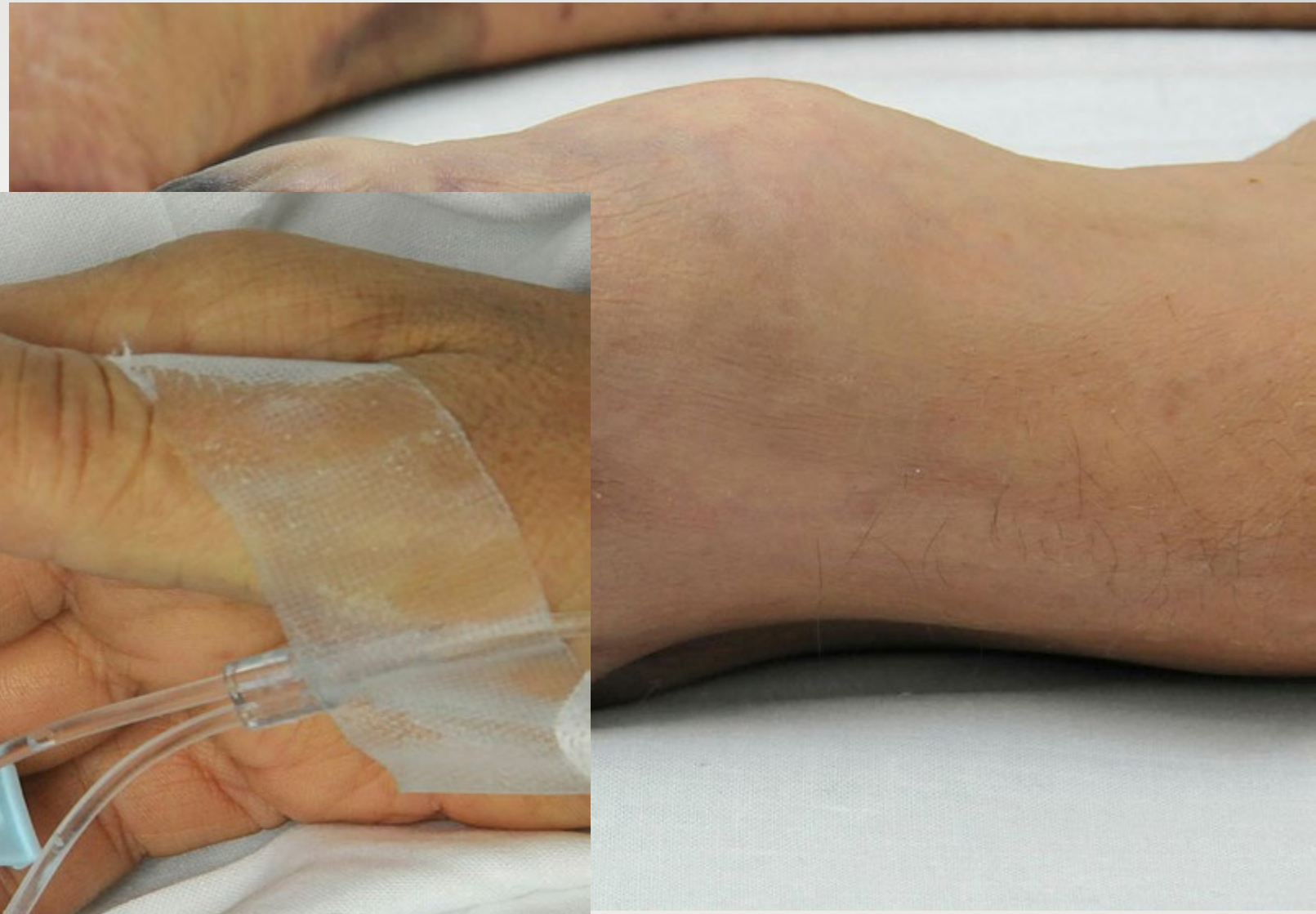
Gastroenterology/ Hepatology

- Patchy! Do they have the answers?
- Excreted in bile and urine
- Inflammation progresses to biliary stasis and bile duct fibrosis then biliary cirrhosis with prolonged exposure
- More prone to biliary sepsis
- COVID-19 patients on prolonged IVI Ketamine during ventilation developed diffuse intra and extrahepatic cholangiopathy
- Developed after 2 weeks
- Reversibility? Rapid decline noted

NNUH
Retrograde ureteropyelogram Both
Retrograde ureteropyelogram Both
17/10/2024 12:01:47
14492968
21 M
LD
ABD
MAG 0
111 kV
1.8 mA
00:41 min
2.41
IM: 21

Hepatology – unclear - no protocol

- We monitor LFT's until become twitchy
- Send to Hepatology
- Perform MRCP for prognosic purposes
- Avoid ERCP as unlikely to be useful and hazardous
- Start Ursodeoxycholic acid to improve biliary flow
- No evidence
- Compliance
- IS THIS IDEAL? Work to be done – sub cohorts of patients with deranged LFT's to be seen by Hepatology ?



Why should you set up a Ketamine Clinic?

- Cohort patients out of other clinics
- Substance Misuse and Urology perform a two-pronged approach
- Different
- Learned lots about addiction
- Success stories
- Someone needs to do it
- Responsibility to raise awareness – ICB meetings, Coroner, educating other specialties

Substance Misuse involvement in the Ketamine clinic:

- Engagement
- Acknowledgement that individual factors are important in achieving abstinence/ stopping Ketamine.
- Co-occurring conditions and symptoms that come with Ketamine use means being seen by professionals with Ketamine-specific knowledge is important.
- Our associated telephone clinic means patients are not repeatedly brought back to clinic but have access to the necessary treatment.

Why the rise in ketamine use is so concerning from our perspective:

- The harm from Ketamine seems to be much more focused on the individual user's health compared with other substances.
- Disproportionately affects young people.
- The physical toll can be devastating.
- Quantities, tolerance and associated risks.

Observations:

- Many were previously working full time or in education prior to the symptoms impacting on this.
  - With complications setting in within the first year – Many families unaware of use for months before symptoms start
- Neurodiversity – ADHD and Autism (with many undiagnosed or awaiting treatment)
- Tolerance levels increase rapidly after the use increases to daily
  - Many using 1-5 g but some up to 20 g per day
- A real difficulty in being able to stop, even with marked impact on function and quality of life.
- Self Discharge from hospital / A&E before treatment can commence- pain often the cause for this.
- A proportion of our very unwell patients continue to use ketamine in hospital.

NNUH Ketamine Bladder Clinic

Shiv Sarna, **Charlie Dunford***, Marita Isaac, Sarah Wood, Ruth Doherty
Norfolk and Norwich University Hospitals

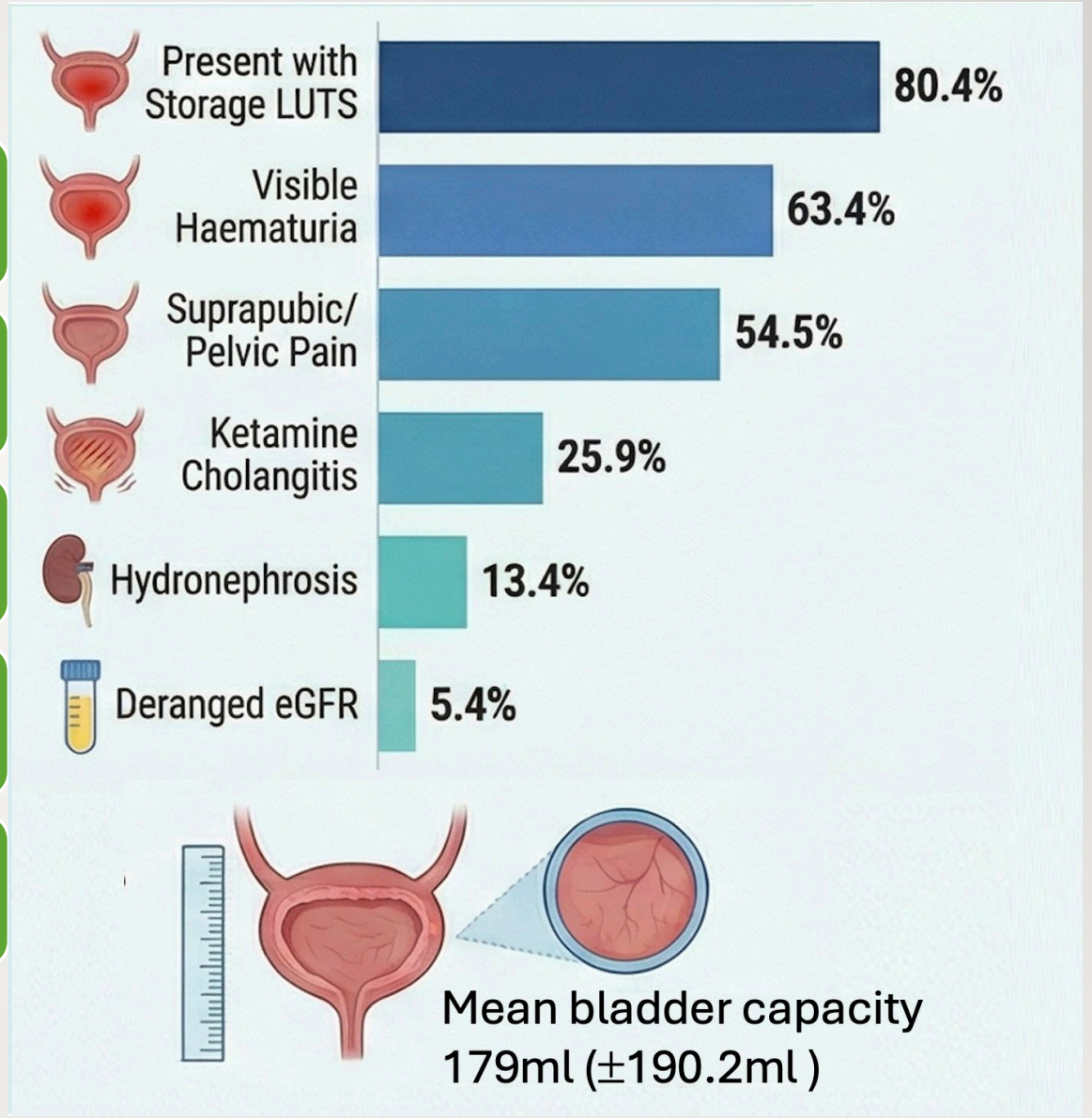
UROLOGY

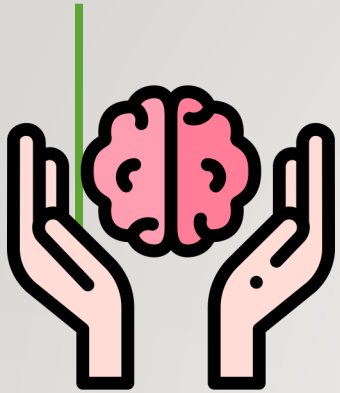
SUBSTANCE MISUSE NURSE PRACTITIONERS

PAIN SPECIALISTS

COMMUNITY ADDICTION SERVICES

- N = 229 patients
- Mean age 28 ± 6yrs; 56% male
- Mean ketamine use 9.7 ± 6.0yrs
- Mean daily dose 8.4 g (max 50g)
- 59% current users; 38% polydrug use





100% managed by Substance Misuse Nurse Practitioners

49.1% engaged with community addiction services

58% neuropathic agents

29.5% Anticholinergics

9.8% Beta-3 agonists

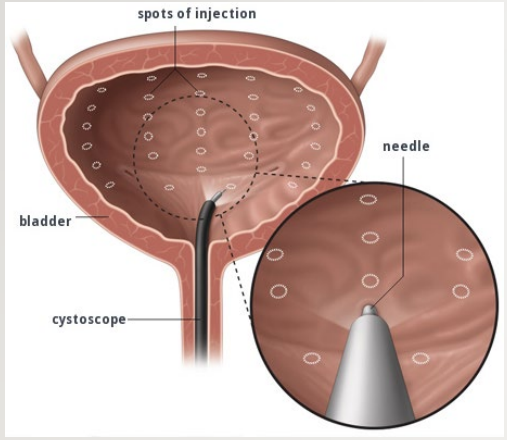
3.6% Intravesical therapy

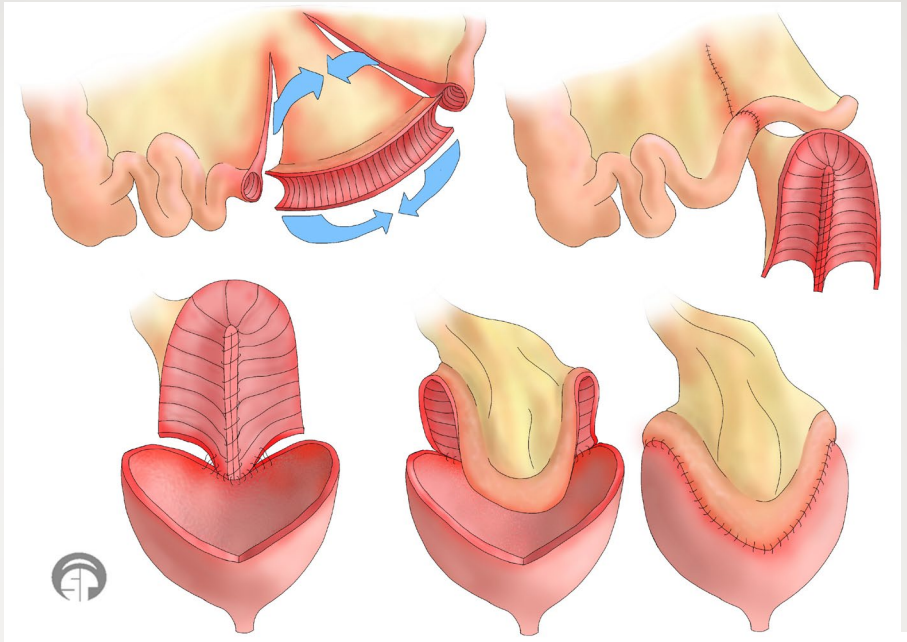
8.0% required nephrostomies

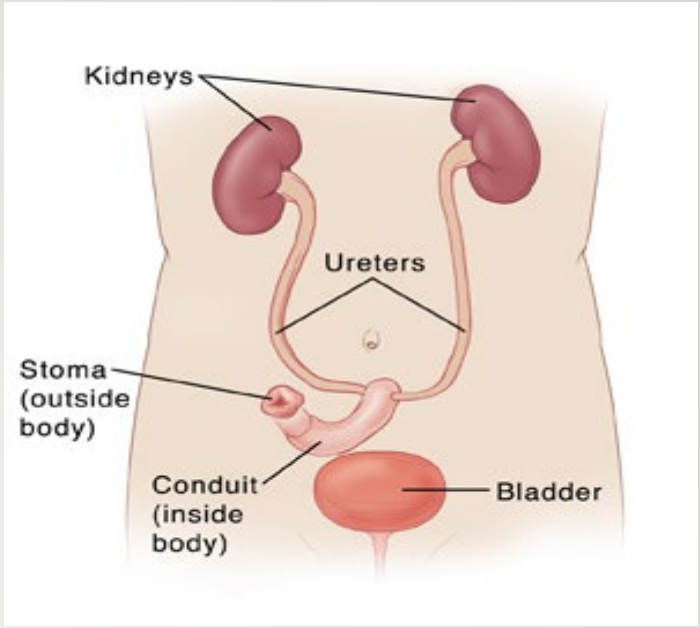
0.87% (n=2) required urinary tract reconstruction

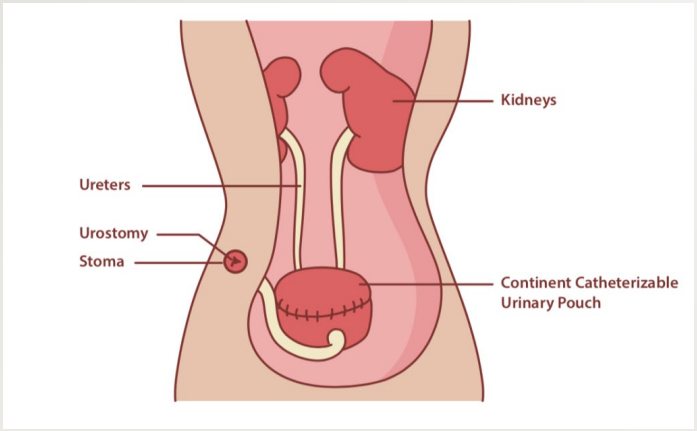
52.7% of patients reported symptomatic improvement

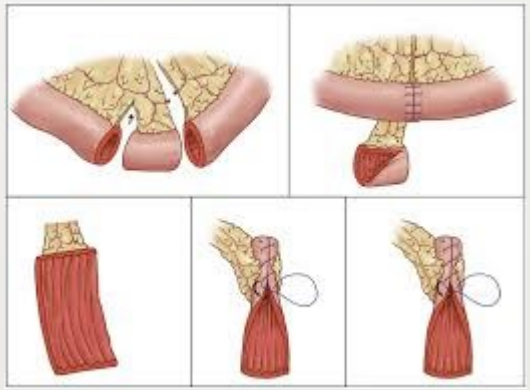
Surgical options

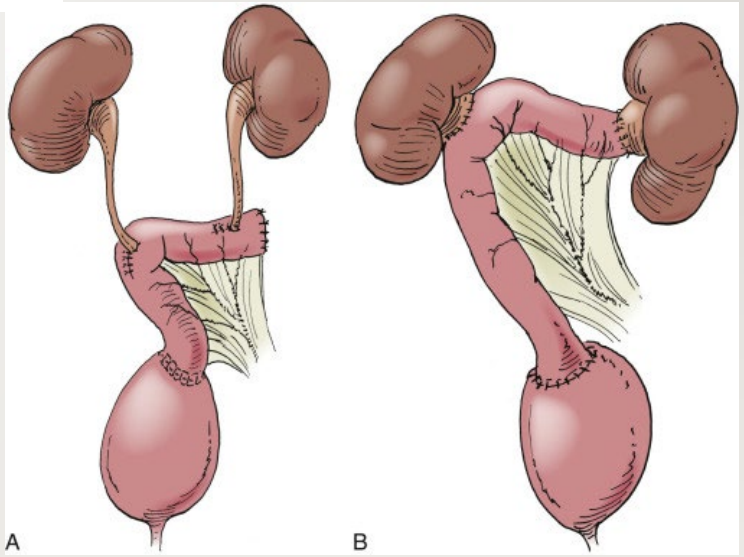












Index Case

- 28 year old male
- 3-6g usage per day for 1 year
- Bladder pain, urgency and frequency
  - Passing urine every 30mins
- Within 3 months of abstinence
  - Passing urine every 2 hours now
- Ongoing pain bladder and urethra, like something was stuck
  - Amitriptyline 20mg nocte improved this
- Discharged from our service in 7 months
  - Weaning off Amitriptyline

Conclusion

- Ketamine uropathy is a complex, multi-system disease
- Our data shows that while the damage is severe, it is often reversible

> **The best treatment isn't a scalpel; it's abstinence**