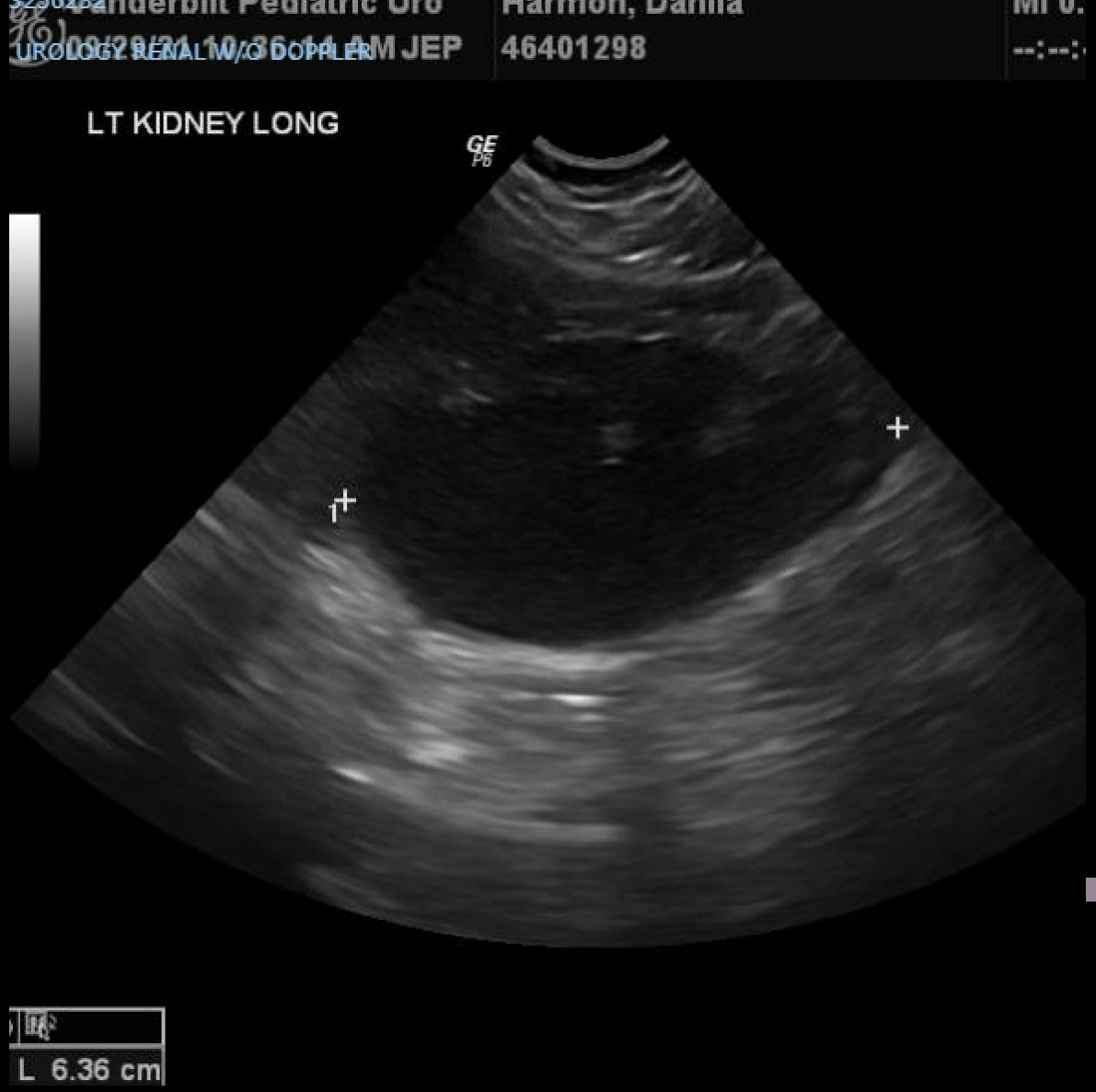
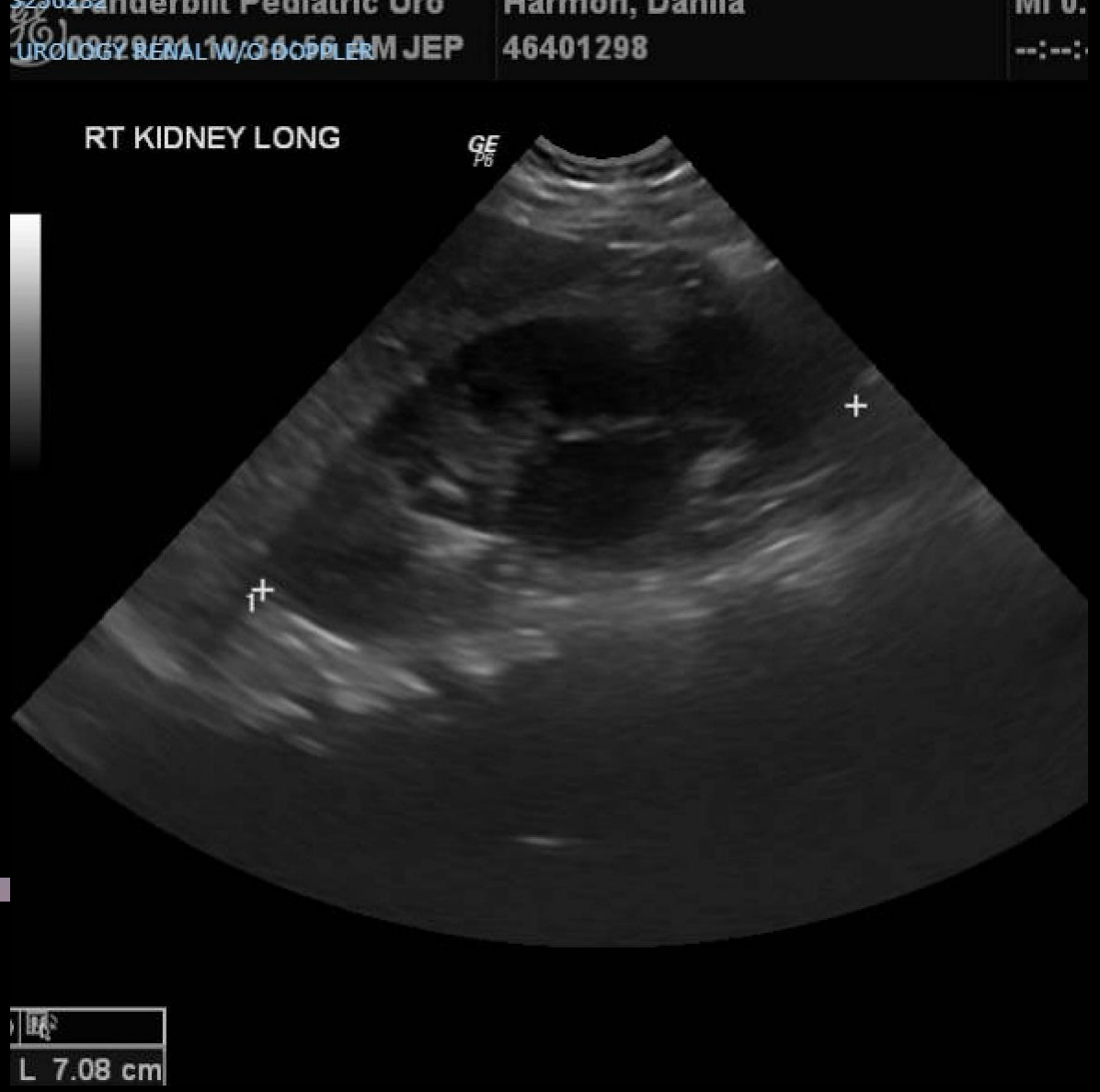
urodynamic cases

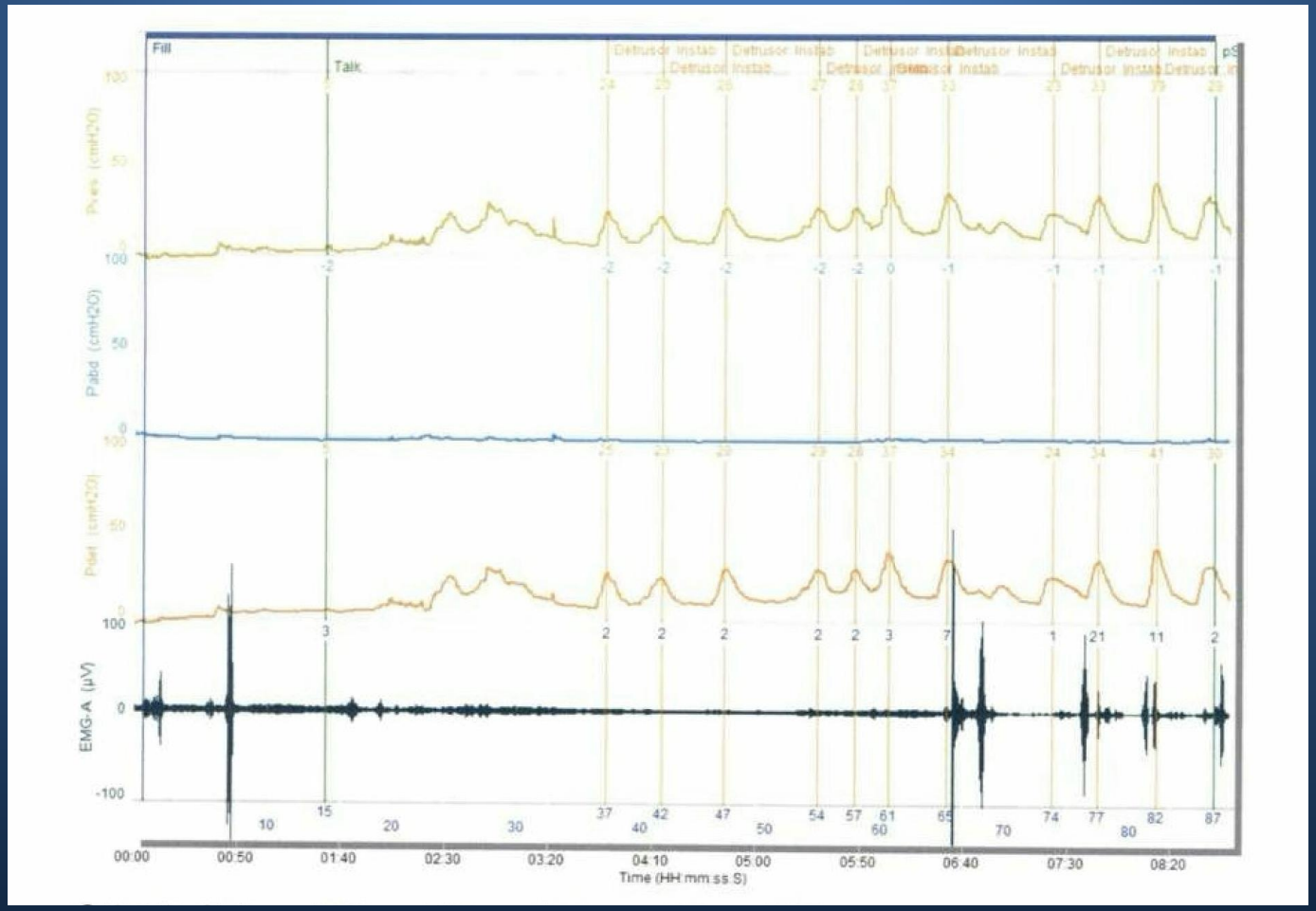
6 yo female
cc: wet all the time

- Back closed at birth
- L4-l5 lesion
- ambulatory
- On CIC 5x day
- Was on intravesical Ditropan but complained of pain when Ditropan was instilled. Off medication now
- Attempted us of peristeen but not successful





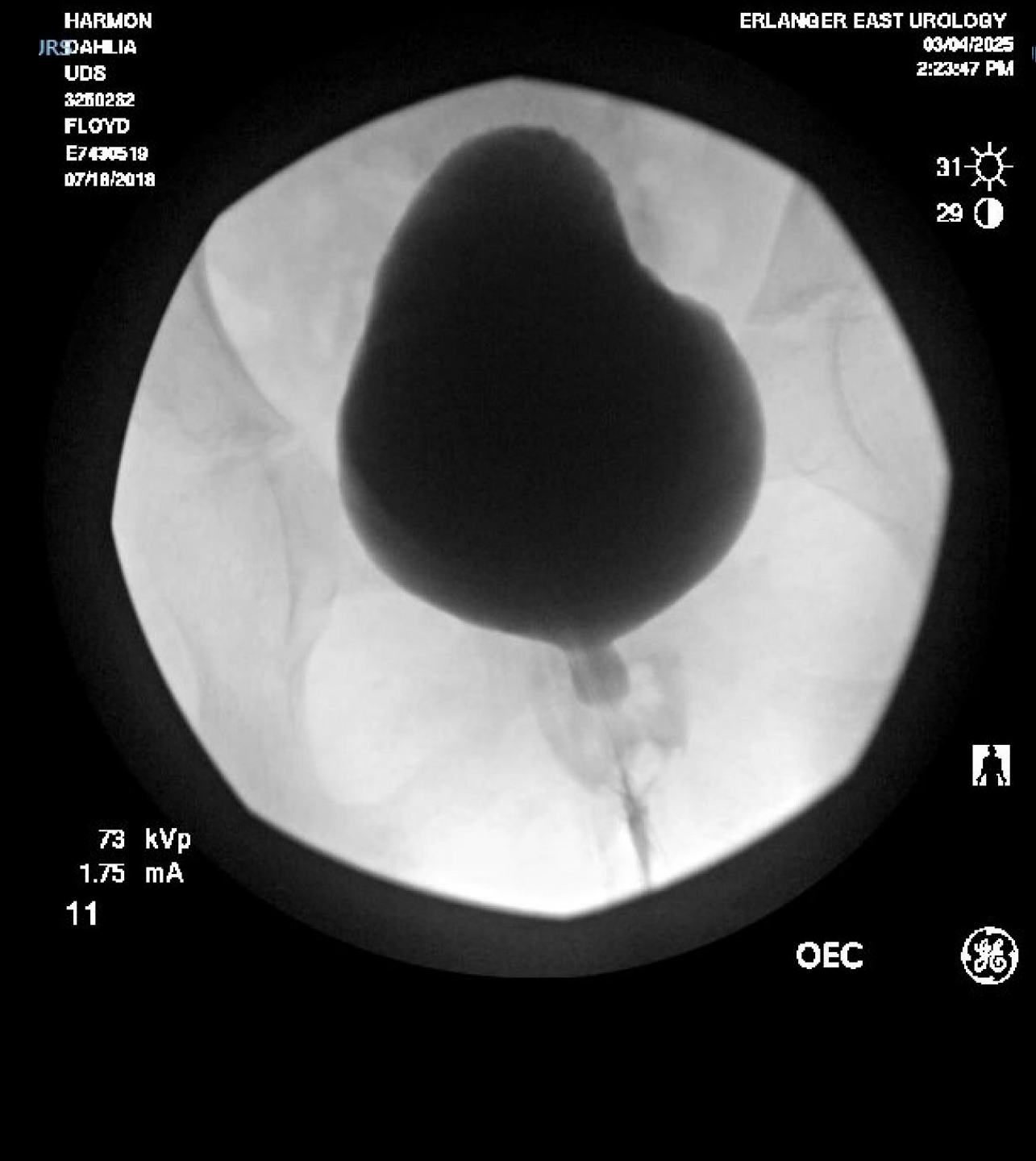
s/p left pyeloplasty

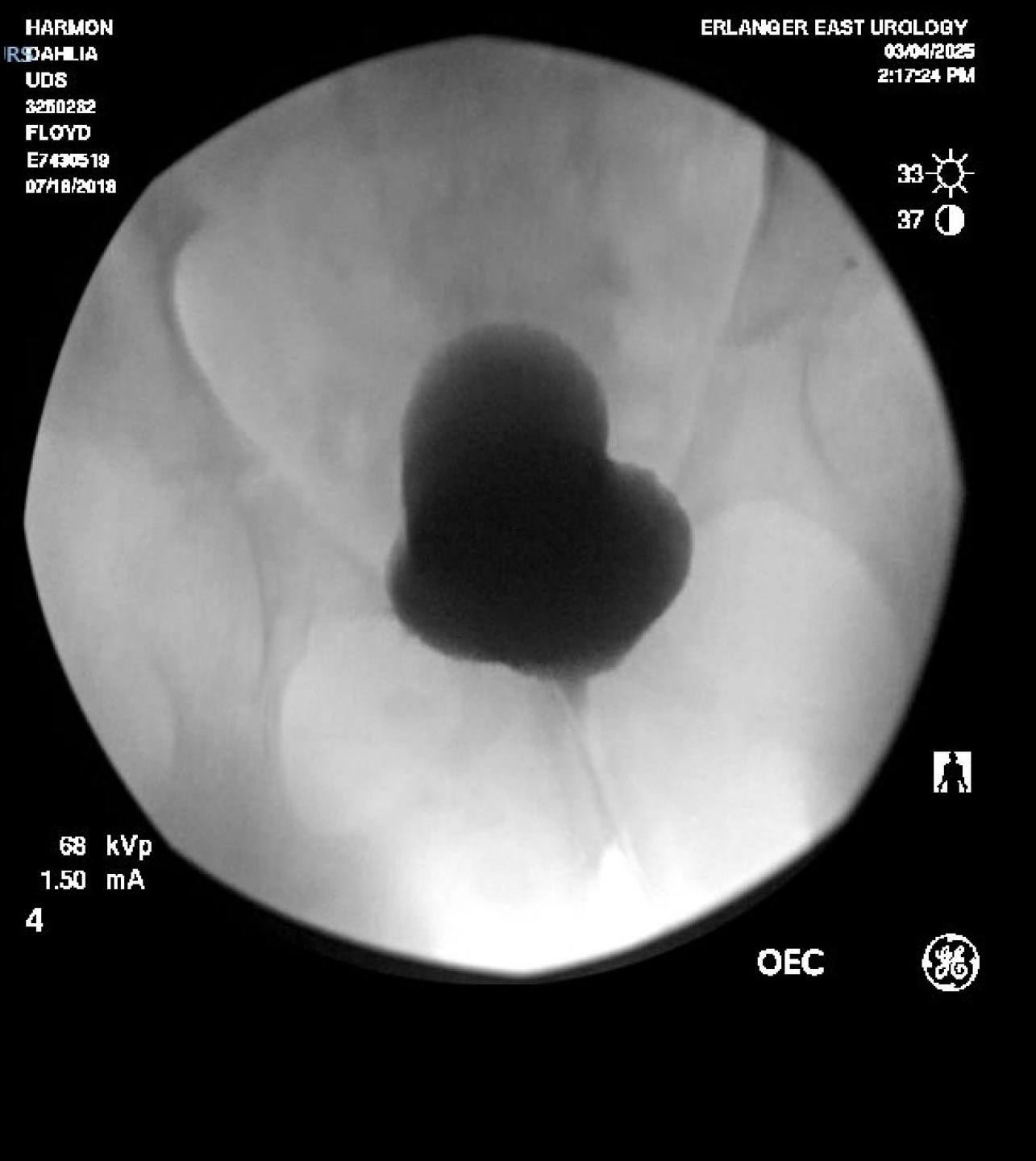

Fill
Talk
Detrusor Instab
Pves (cmH2O)
Pabd (cmH2O)
Pdet (cmH2O)
EMG-A (µV)
Time (HH:mm:ss.S)

Patient Name:	DAHLIA HARMON	**Patient MRN:**	03250232
Patient DOB (Age):	07/18/2018 (6 YO)	**Patient Sex:**	FEMALE
Date of Visit:	03/04/2025	**Time of Visit:**	12:37:58 pm

The PROMETHEUS GROUP

Event Summary Table	Time (mm:ss)	Qura (ml/s)	Vura (ml)	VInf (ml)	Pves (cmH2O	Pabd (cmH2O)	Pdet (cmH2O)
Cystometry	00:05	0	0	0	-2	0	-2
Talk	01:32	0	0	15	5	-2	5
Detrusor Instab	03:48	0	0	37	24	-2	25
Detrusor Instab	04:15	0	0	42	20	-2	23
Detrusor Instab	04:45	0	0	47	26	-2	28
Detrusor Instab	05:30	0	0	54	27	-2	29
Detrusor Instab	05:48	0	0	57	26	-2	28
Detrusor Instab	06:04	0	0	61	37	0	37
Detrusor Instab	06:32	0	0	65	33	-1	34
Detrusor Instab	07:23	0	0	74	23	-1	24
Detrusor Instab	07:45	0	0	77	33	-1	34
Detrusor Instab	08:13	0	0	82	39	-1	41
pStop	08:41	0	0	87	29	-1	30


HARMON
DAHLIA
UDS
3250282
FLOYD
E7430519
07/18/2018
ERLANGER EAST UROLOGY
03/04/2025
2:23:47 PM
31
29
73 kVp
1.75 mA
11
OEC


HARMON
DAHLIA
UDS
3250282
FLOYD
E7430519
07/18/2018
ERLANGER EAST UROLOGY
03/04/2025
2:17:24 PM
33
37
68 kVp
1.50 mA
4
OEC

What next?

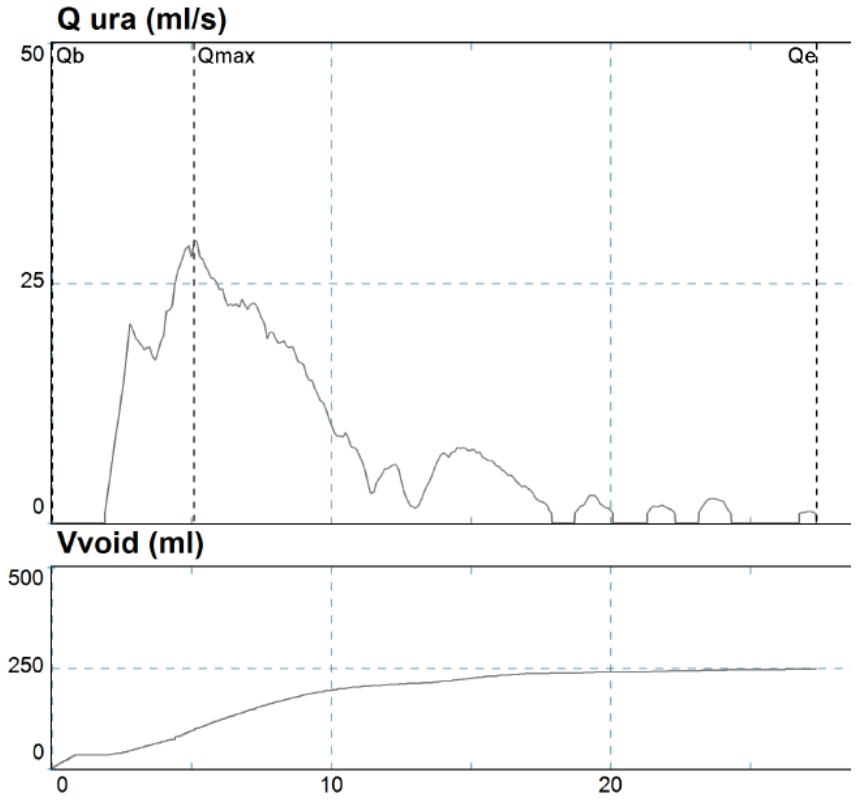
- Solifenacin 10 mg
- Mirabegron?
- Alfuzosin?
- Botulinum toxin A?
- Bladder augmentation?

Boy 6 years

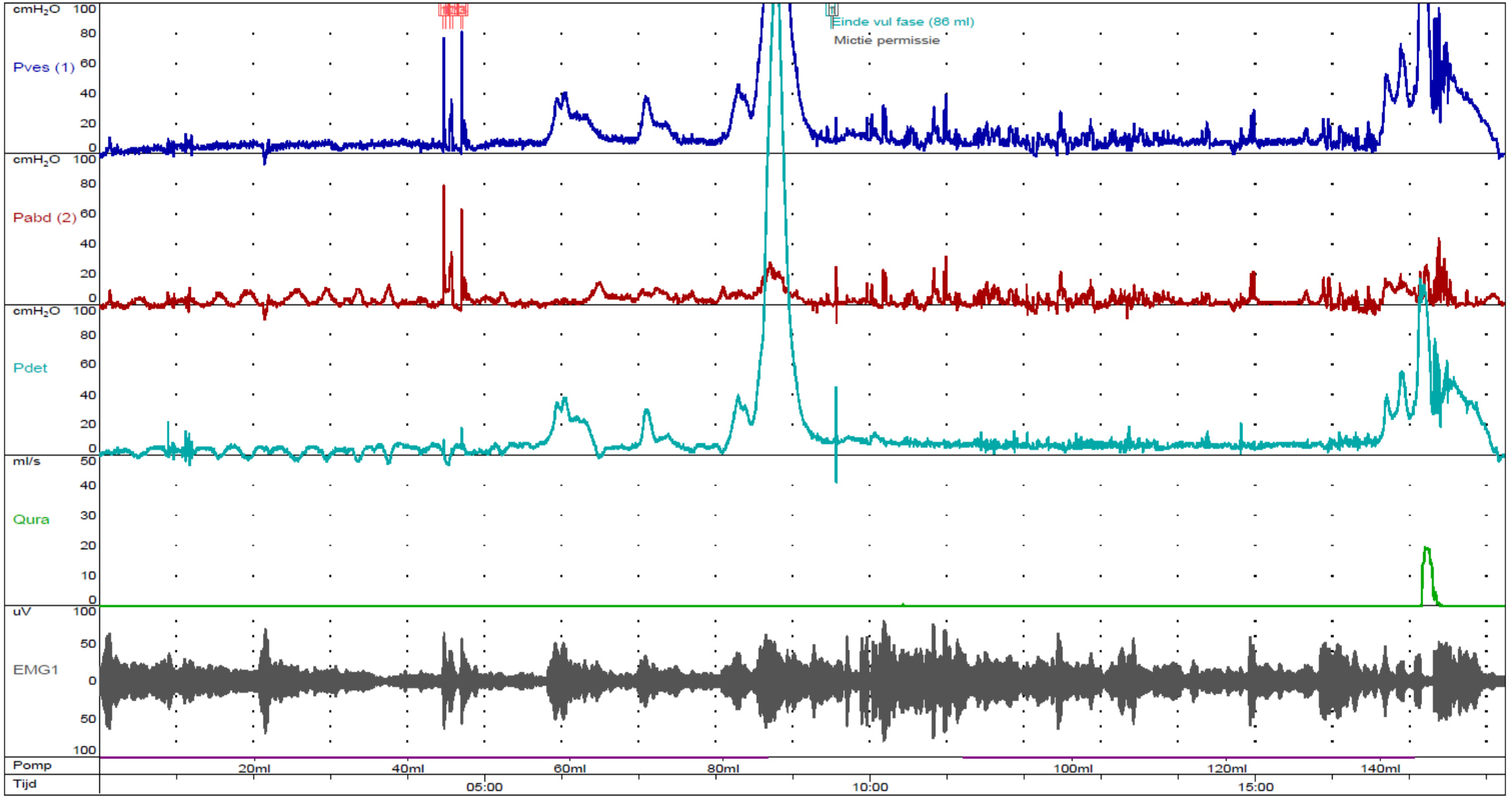
Anamnesis:

- Varying urinary incontinence in daytime, dry during the night
- No incontinence while coughing, laughing or playing
- No obstipation with 4mg macrogol
- Sometime abdominal pain, then also incontinent
- Already had basic urotherapy

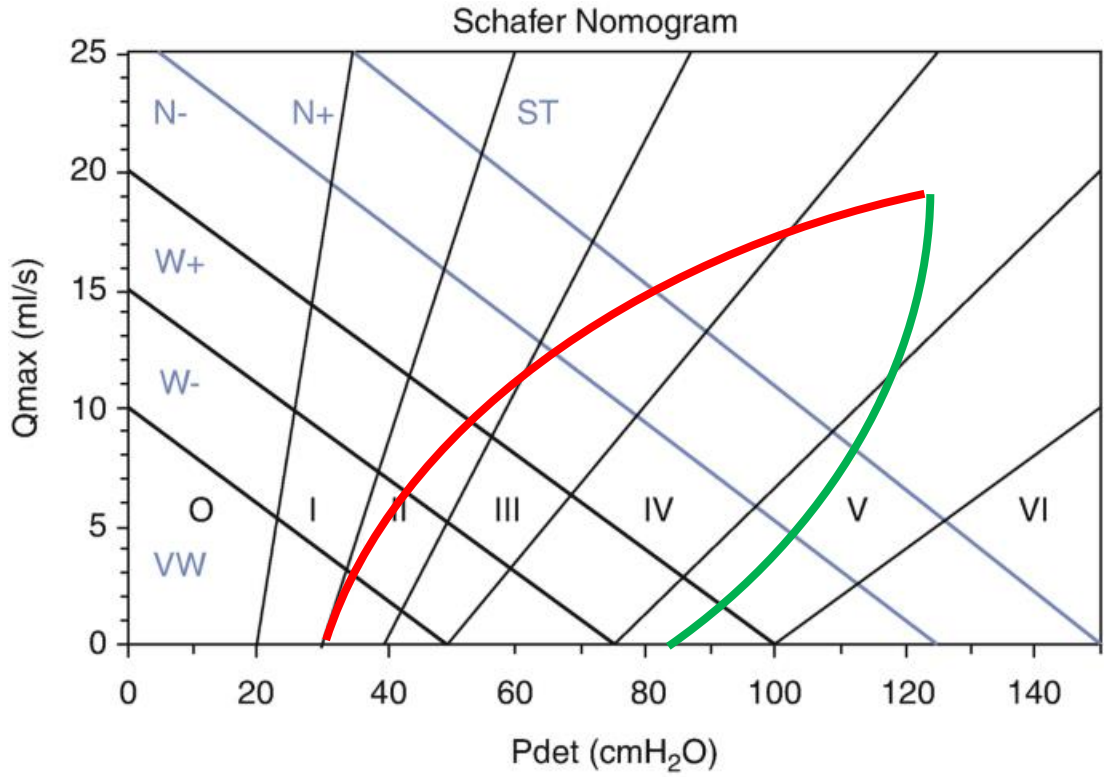
Uroflowmetry

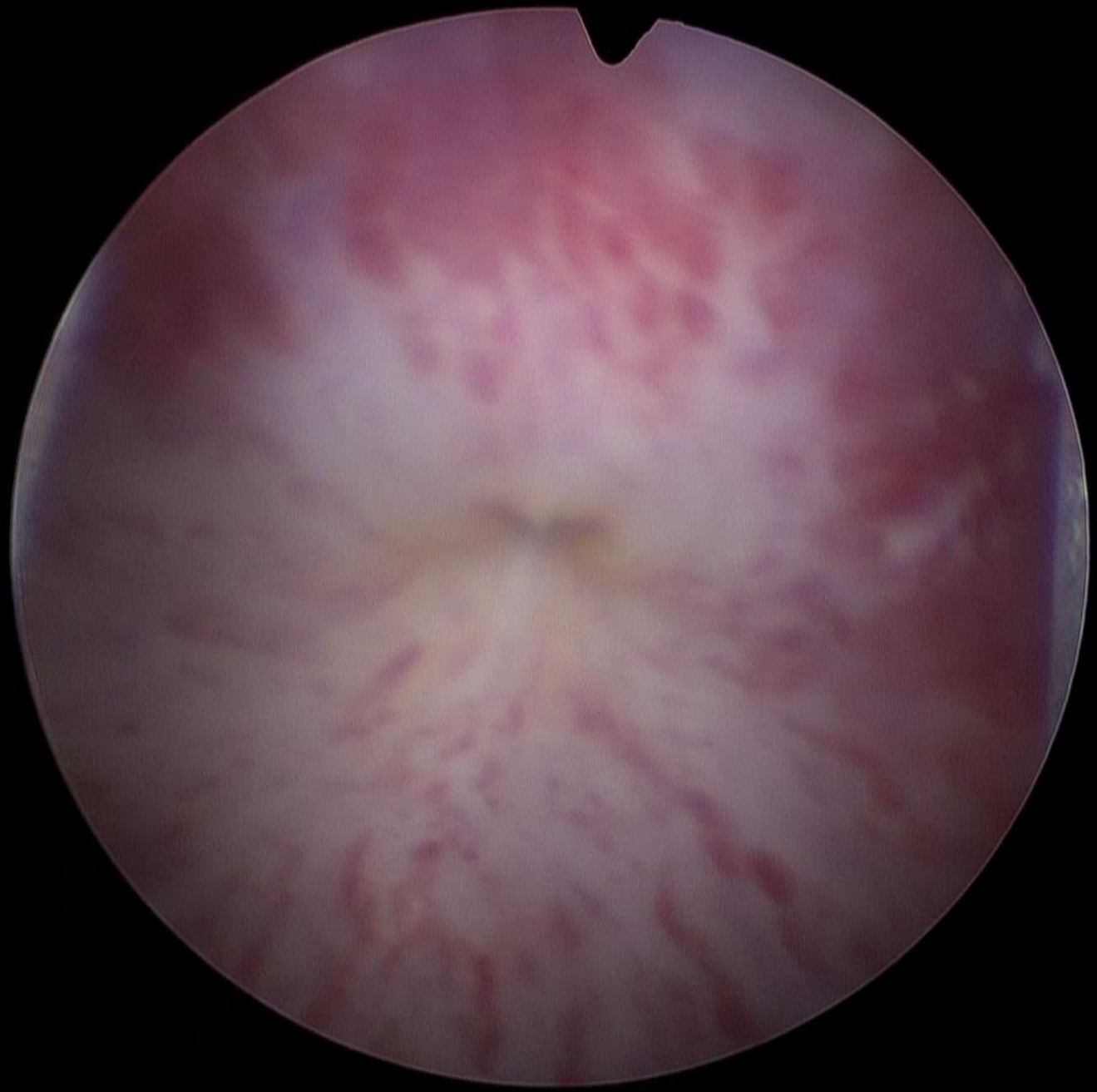


Q max	30	mL/s
Q gemiddeld	9	mL/s
Mictie volume	248	mL
Flow tijd	20,1	s
Mictie tijd	27,4	s


cmH2O 100 80 60 40 20 0
Pves (1)
Einde vul fase (86 ml)
Mictie permissie
cmH2O 100 80 60 40 20 0
Pabd (2)
cmH2O 100 80 60 40 20 0
Pdet
ml/s 50 40 30 20 10 0
Qura
uV 100 50 0 50 100
EMG1
Pomp
20ml
40ml
60ml
80ml
100ml
120ml
140ml
Tijd
05:00
10:00
15:00

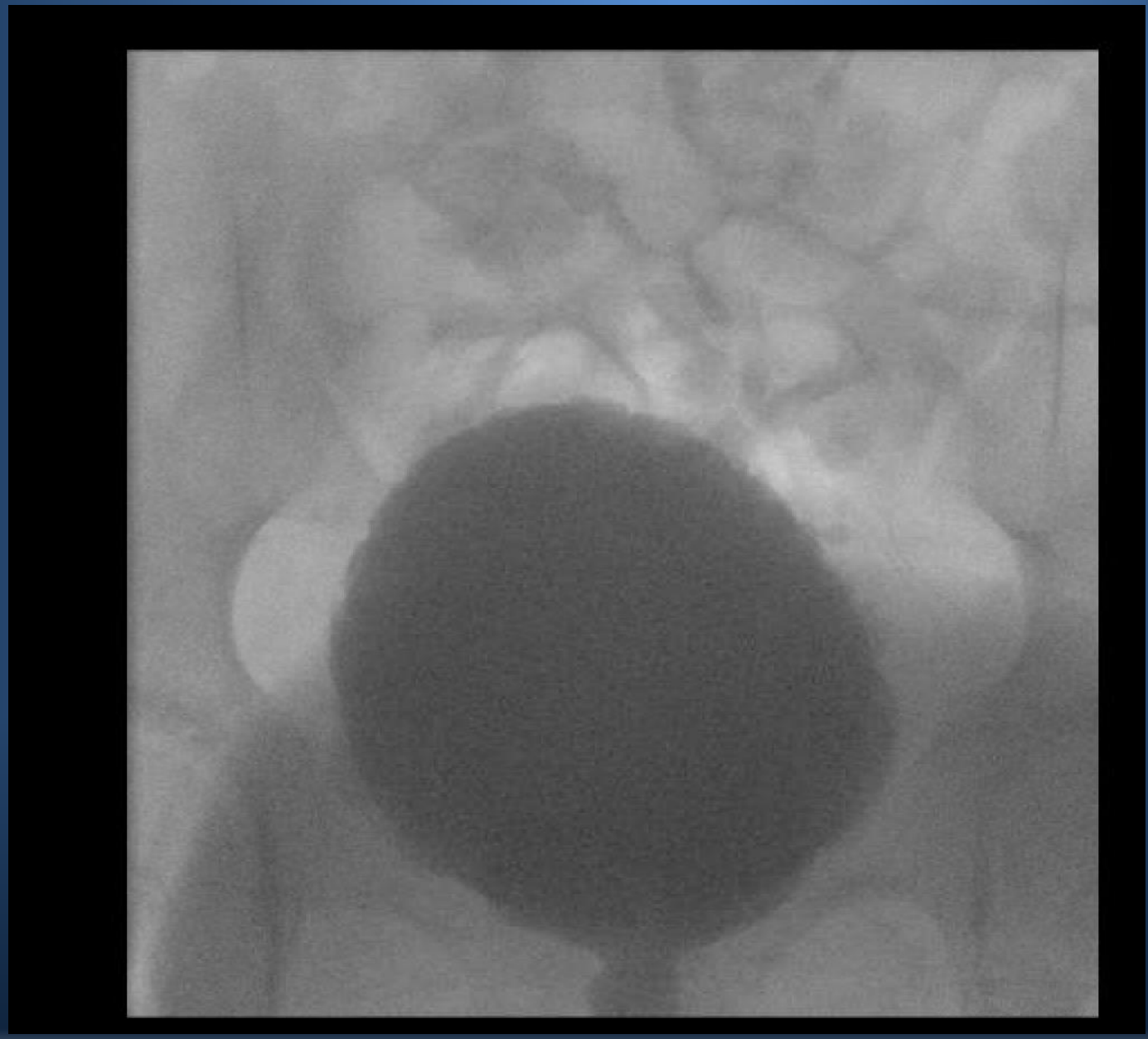
Pressure-flow diagram



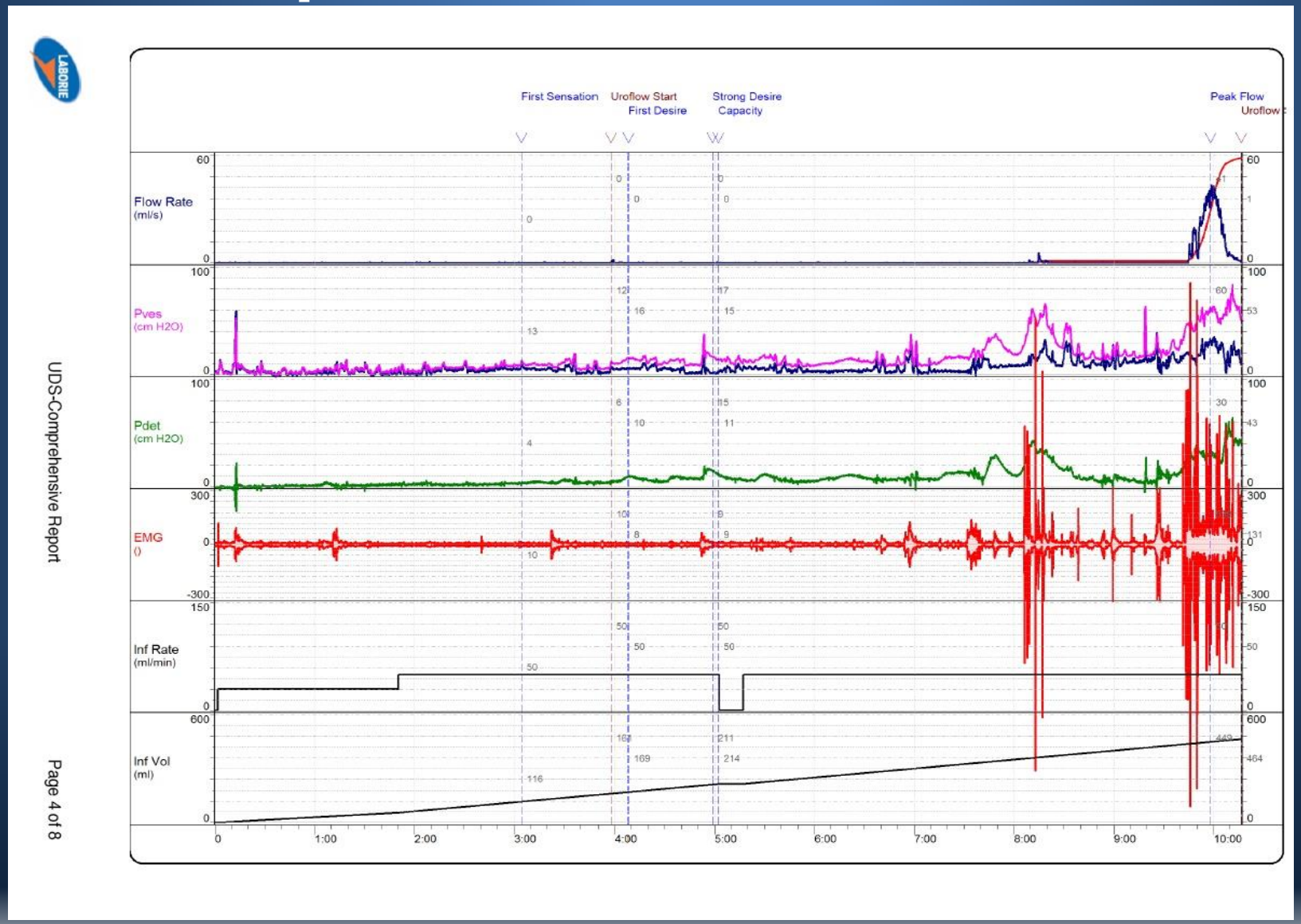


11 yo female with dysuria, possible uti and a history of maternal reflux

- An ultrasound was obtained which revealed that she had right upper pole caliectasis. A prior VCUG had already revealed no evidence of reflux and a small right-sided paraureteral diverticulum.
- An uroflow was ordered but never done and the patient had a VUD ordered at the same sitting to "evaluate the bladder pressures"



Urodynamics were performed which reveals as expected, detrusor overactivity with UIC's noted on filling and significant large contractions after the patient had stated that she was full and had to void.



11 yo female with dysuria, possible uti and a history of maternal reflux.

Avoid Unnecessary Testing

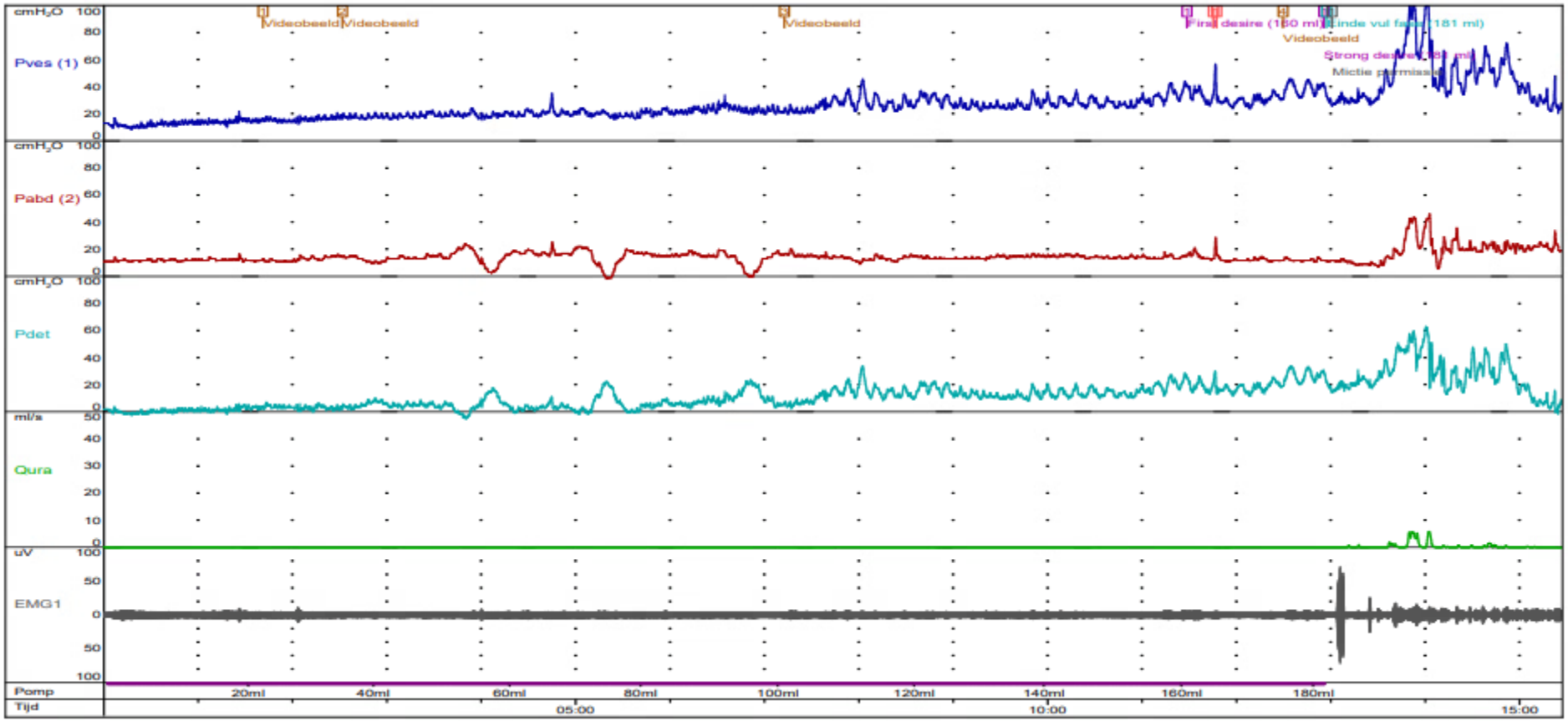
- What is clear from this case is that evaluation of the VCUG could have made the diagnosis of external sphincter dyssynergia and the symptoms of urgency by themselves could have easily led the investigator to the conclusion that the patient has DO.
- The need for an expensive and invasive test could have been avoided.
- Furthermore, the symptom of dysuria should have alerted the investigator especially without evidence of an infection that there was dysfunctional voiding.
- Initial corrective treatment with suppression of the overactivity, which can be assessed clinically, is critical in this case to obtain prompt and lasting results with biofeedback to retrain the external sphincter to relax, the solution was not urodynamics.

Boy, currently 15 years

History:

- 2009: Posterior Urethral Valves, antenatal blowout left kidney
- 2010: Ureter reimplantation both sides, bladder augmentation
- …
- 2024: Bladder workup pre kidney transplantation

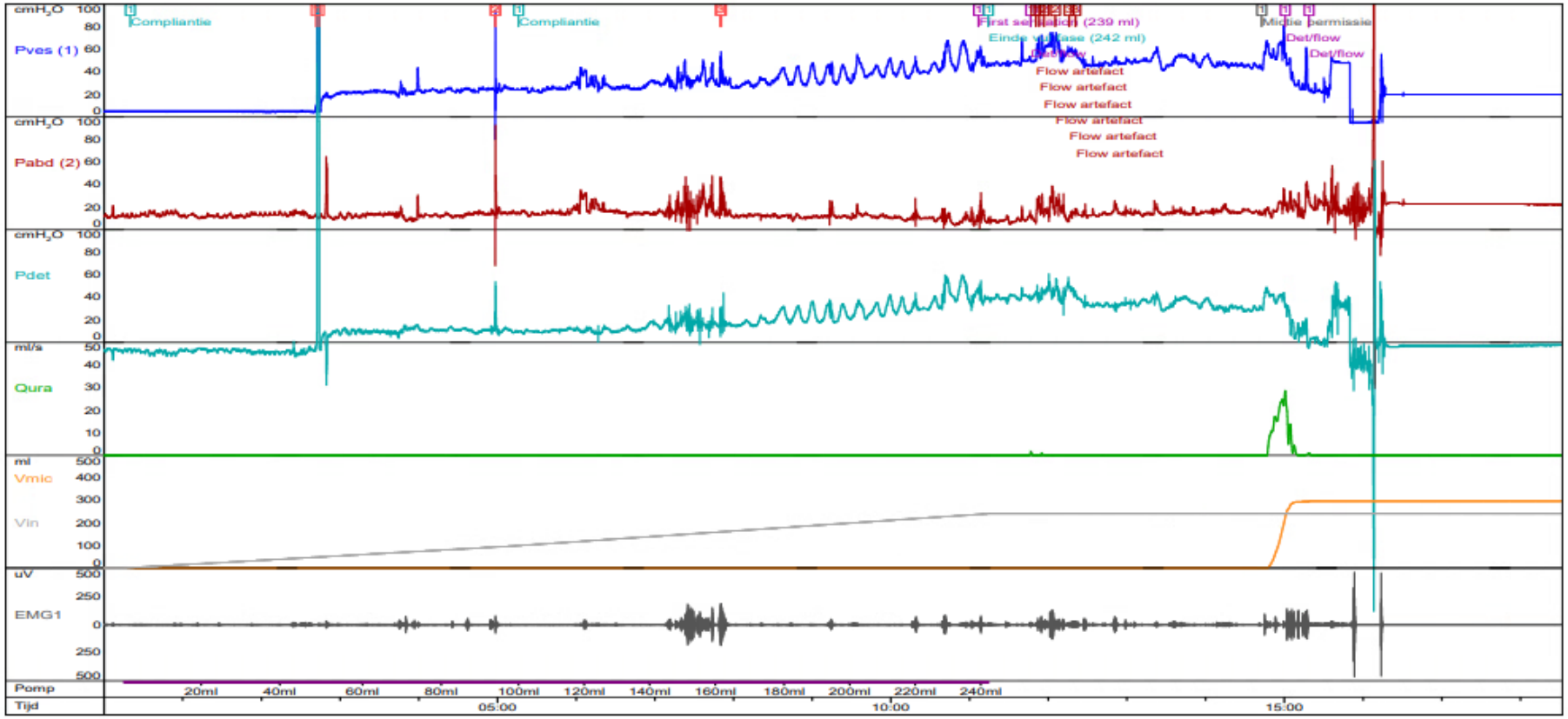
2024-6; med: Mirabegron 50mg



Capacity: 220ml, DO after 110ml max 35cmH2O

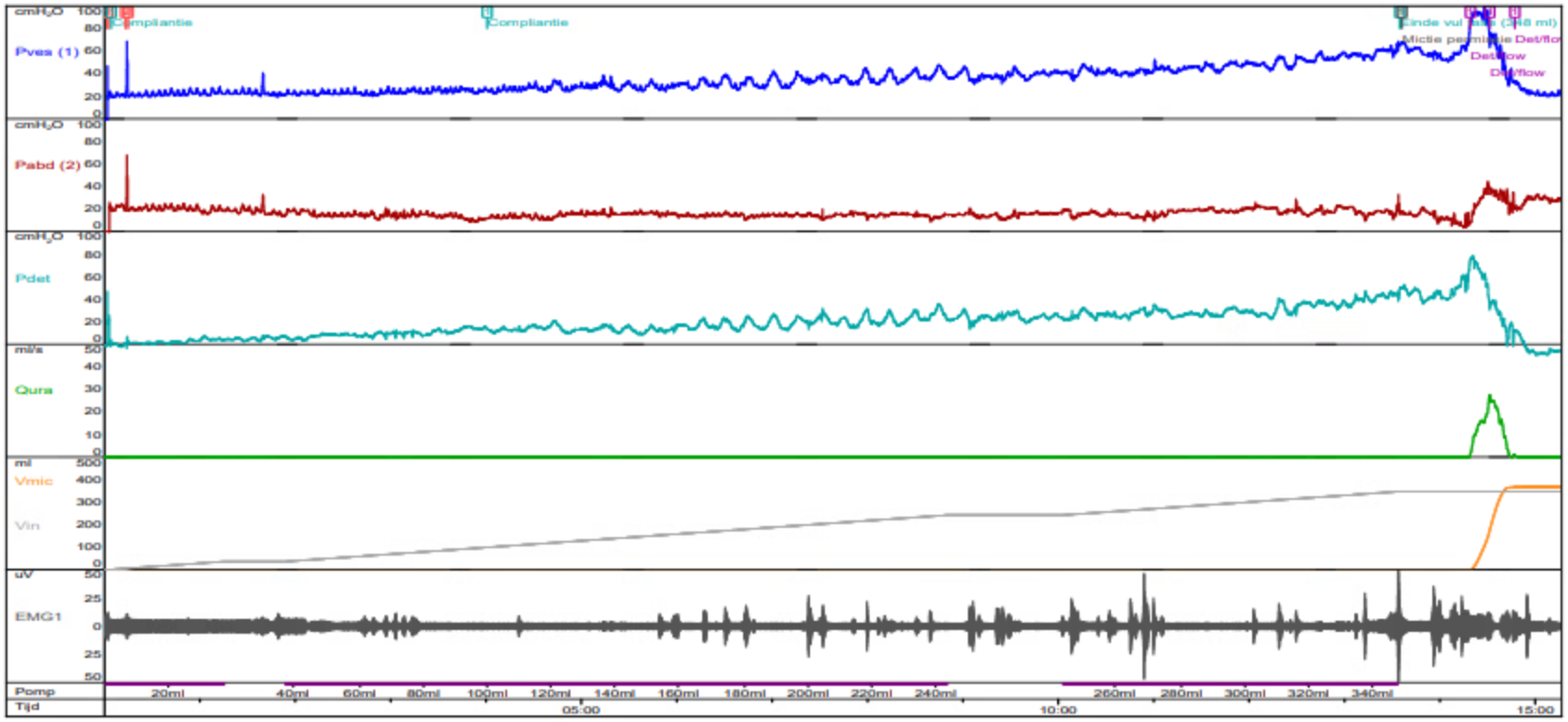
Dysfunctional voiding

2024-12; med: Solifenacine 5mg + Mirabegron 50mg



Capacity: 300ml, DO after 140ml max 45cmH2O compliance worse after 100ml

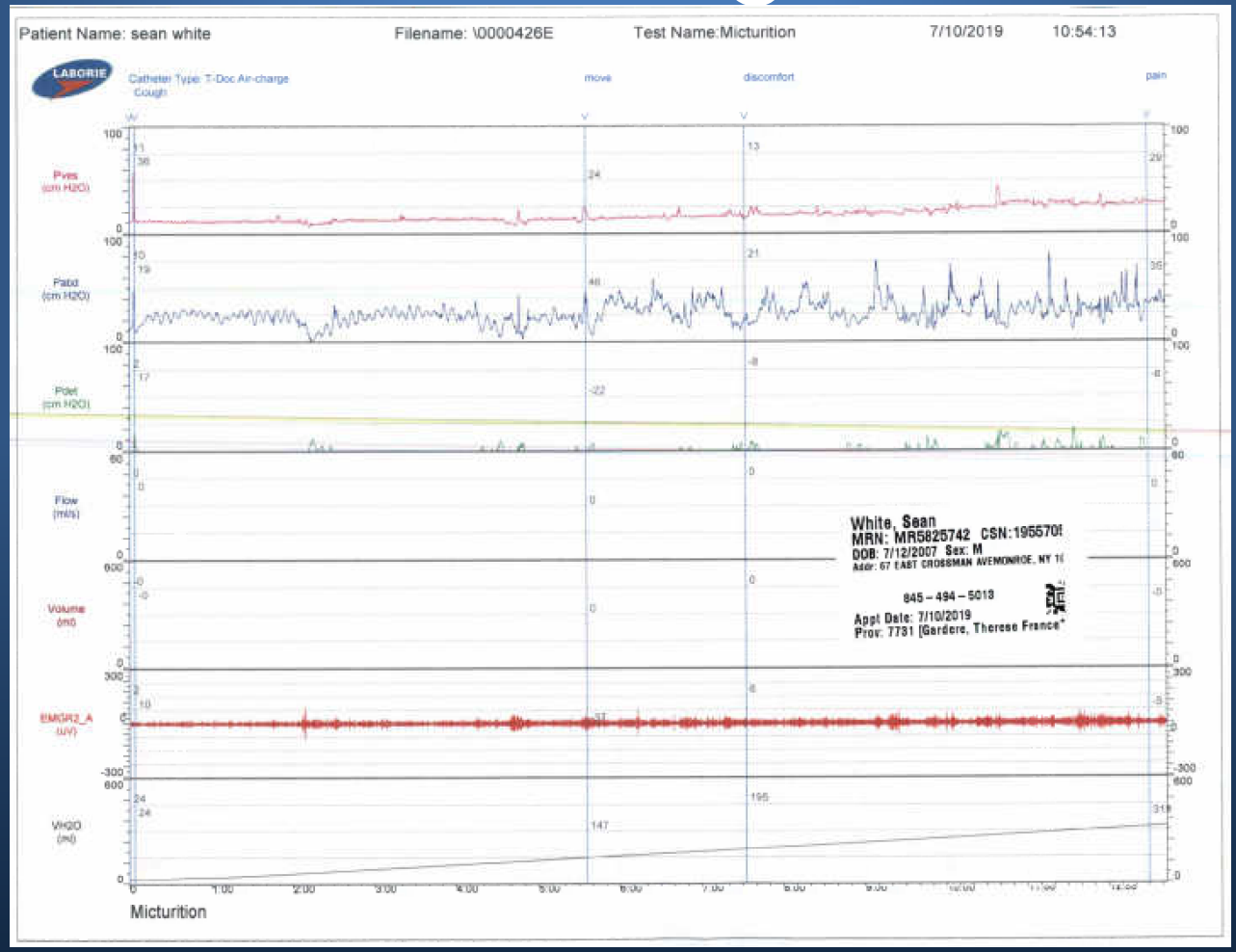
2024-12; med: Solifenacine 10mg + Mirabegron 50mg



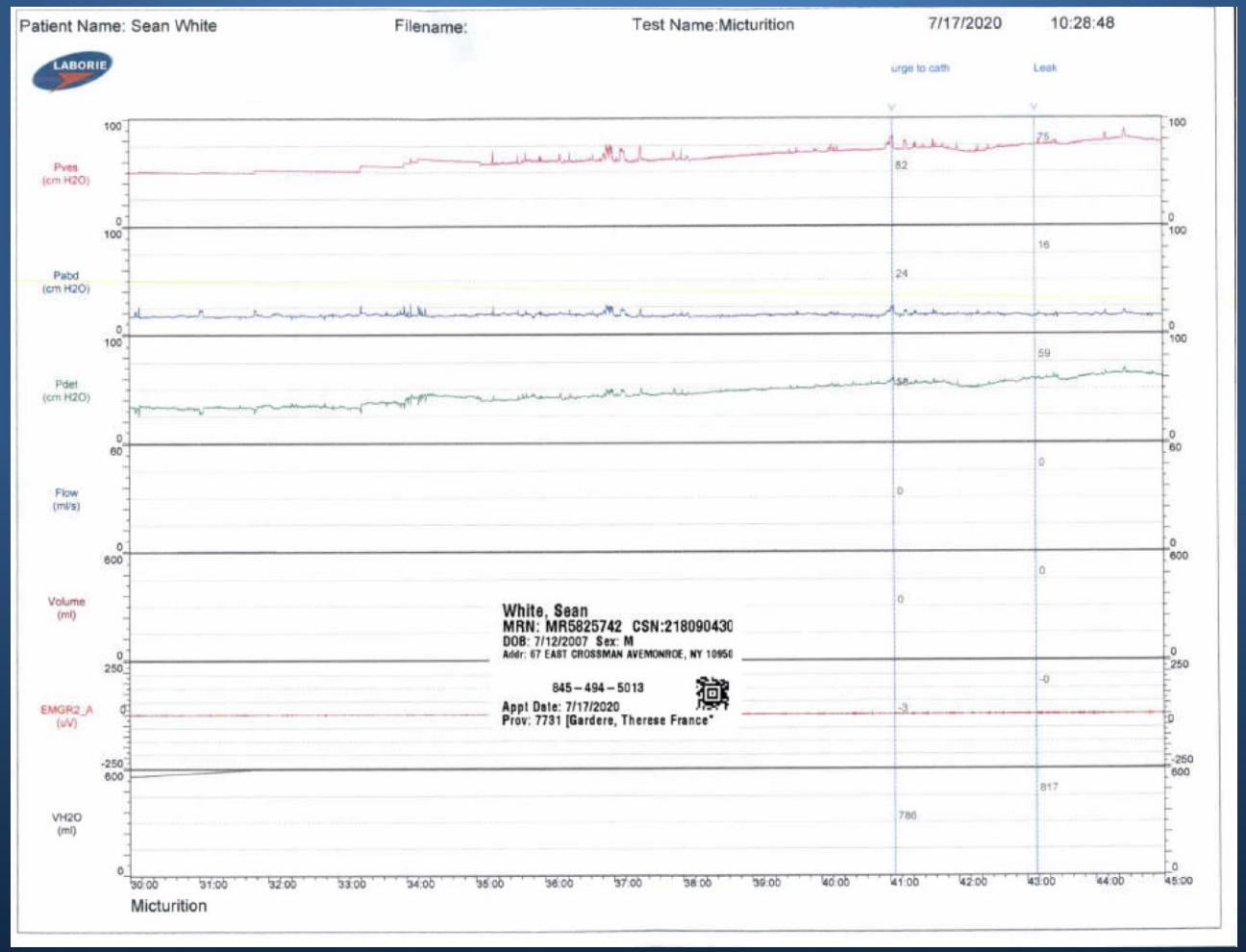
Capacity: 430ml, DO after 140ml max 50cmH2O, compliance worse after 200ml

- 14 yo male with hx of L5-S1 sb
- Mace for irrigations
- Well controlled bladder with alfuzosin and oxybutynin
- Complaining of severe urethral pain with caths
- Not responsive to lidocaine or mirabegron

SW 14 yo boy with severe spasms after cathing



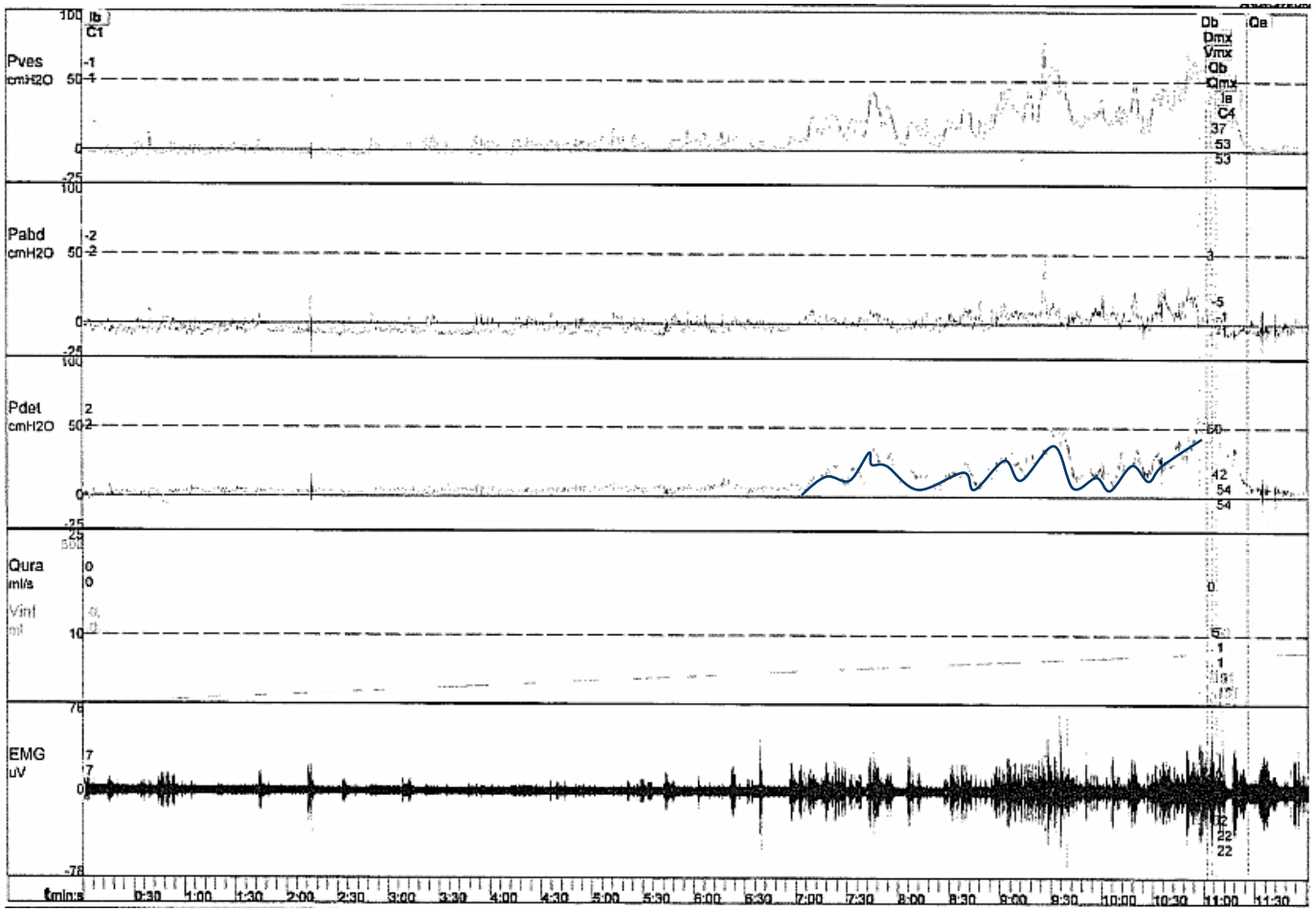
Post rectal Botulinum Toxin A injections



Boy, currently 14 years

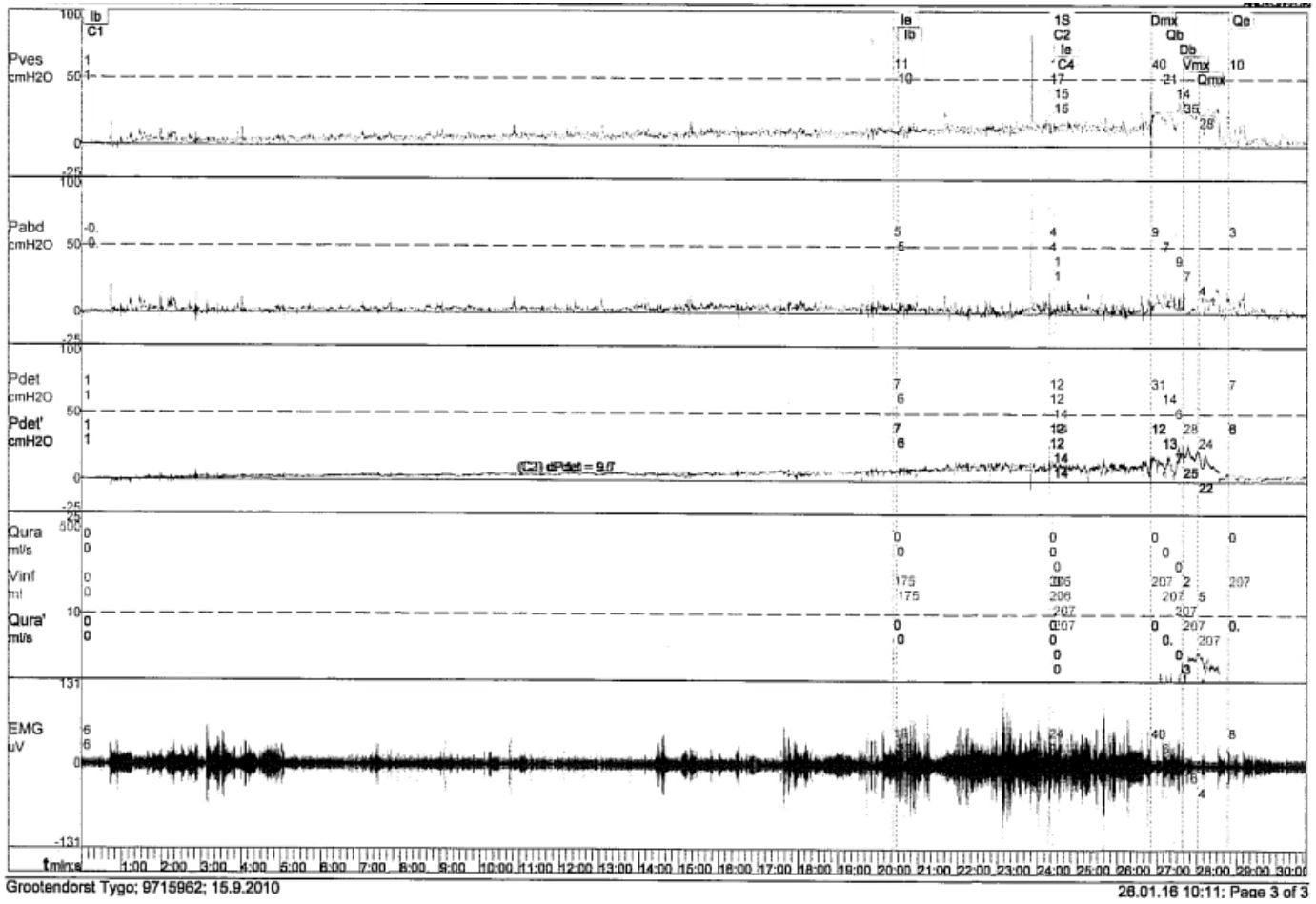
2010:
2012: Resection intradural spinal lipoma
2012: neurogenic bladder
2017: Mitrofanoff stoma
2020: Unthethering conus L1-L3

UDS 2013 (3x1.6mg Oxybutinine):



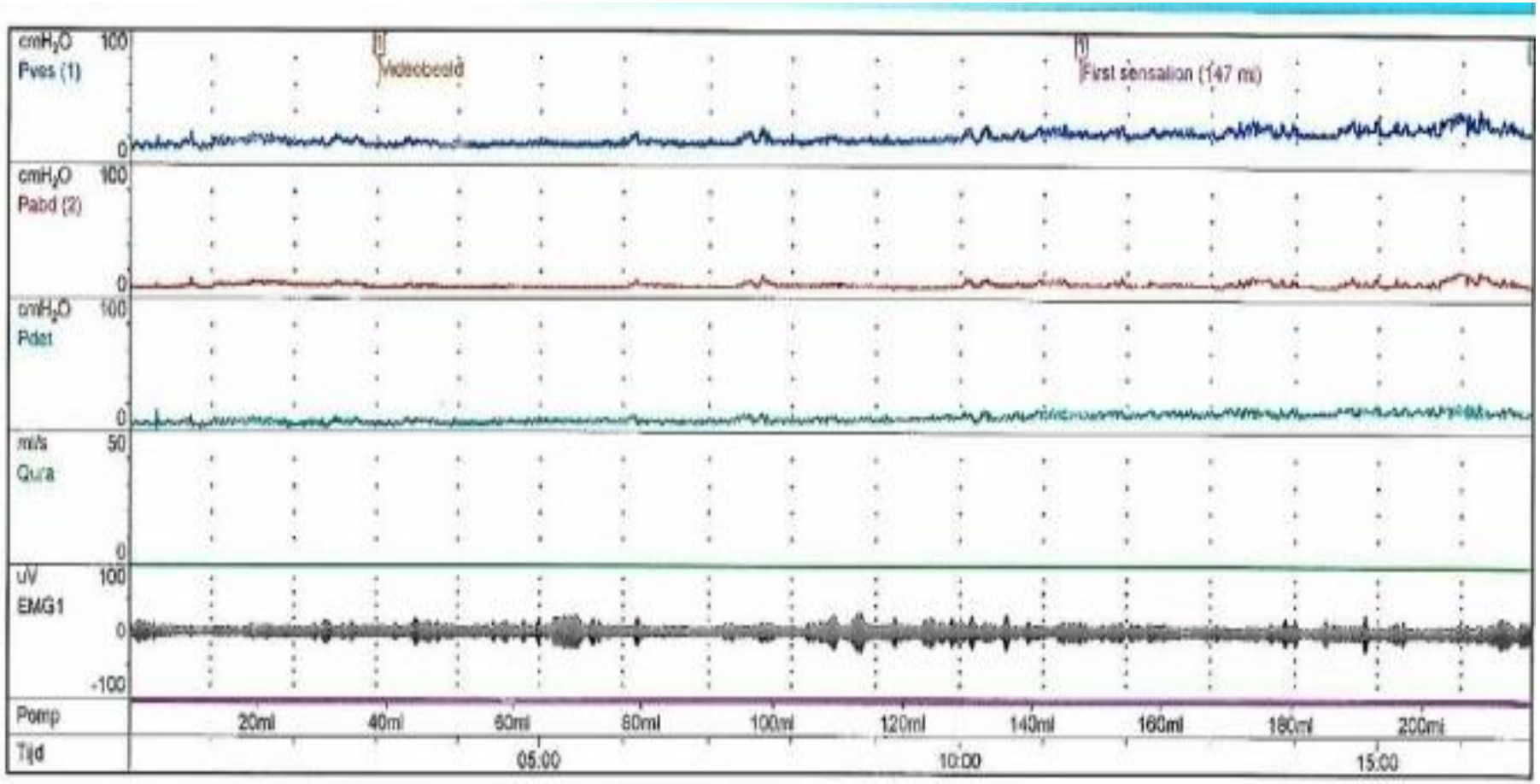
→ **Botulin Toxin A**

UDS 2016: Mirabegron 25mg/d, Solifenacine 5mg/d



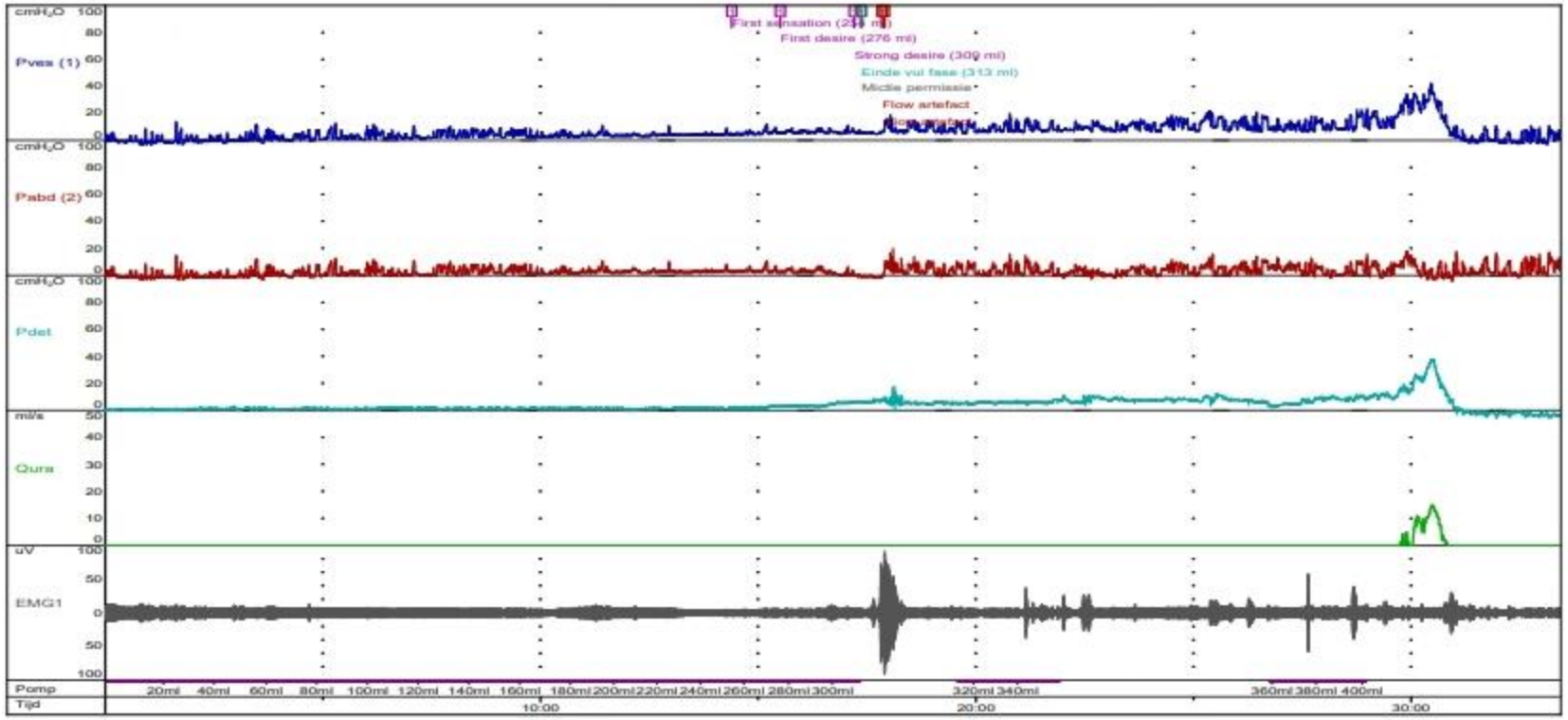
→ **Bladder storage function is OK**

UDS 2020: Mirabegron 25mg/d, Solifenacine 10mg/d



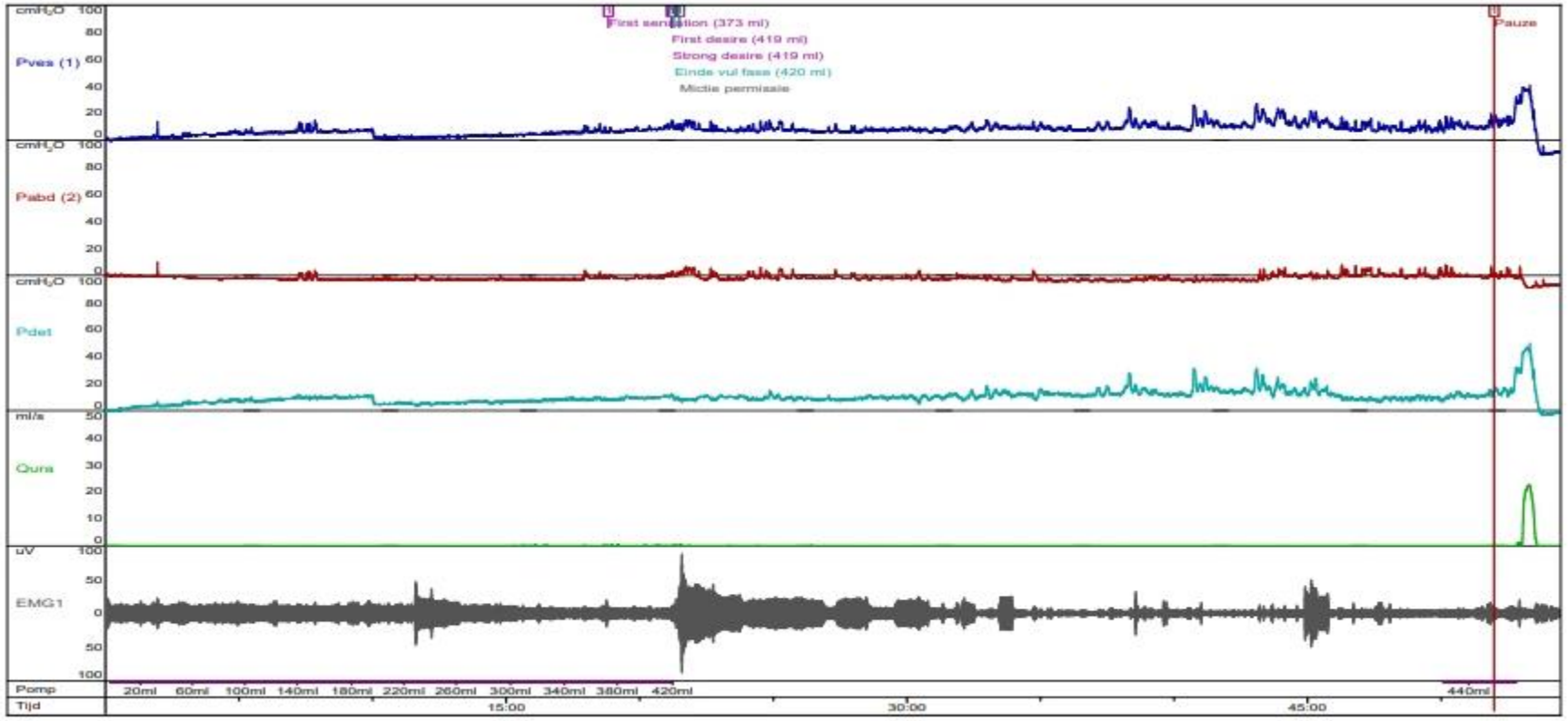
→ **Somewhat small volume, low pressures**

UDS 2023: Mirabegron 25mg/d, Solifenacine 10mg/d



2020: Unthethering conus L1-L3!
→ Good volume, no DO. Is his medication still necessary?

UDS 2024: only mirabegron 25mg/d



→ **No DO**
→ **Good bladder volume (500ml)**
→ **Can void without residual**