

OVERACTIVE BLADDER

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Case 1 : 43 yo F with urinary complaints

5-7 years of increased urinary issues:

Strong FOS

Complete emptying

1-3x/night

Q1-2h voiding with urgency

Leakage but no pain with delay of urination

Really bothered by frequency since limits her ability to do daily tasks

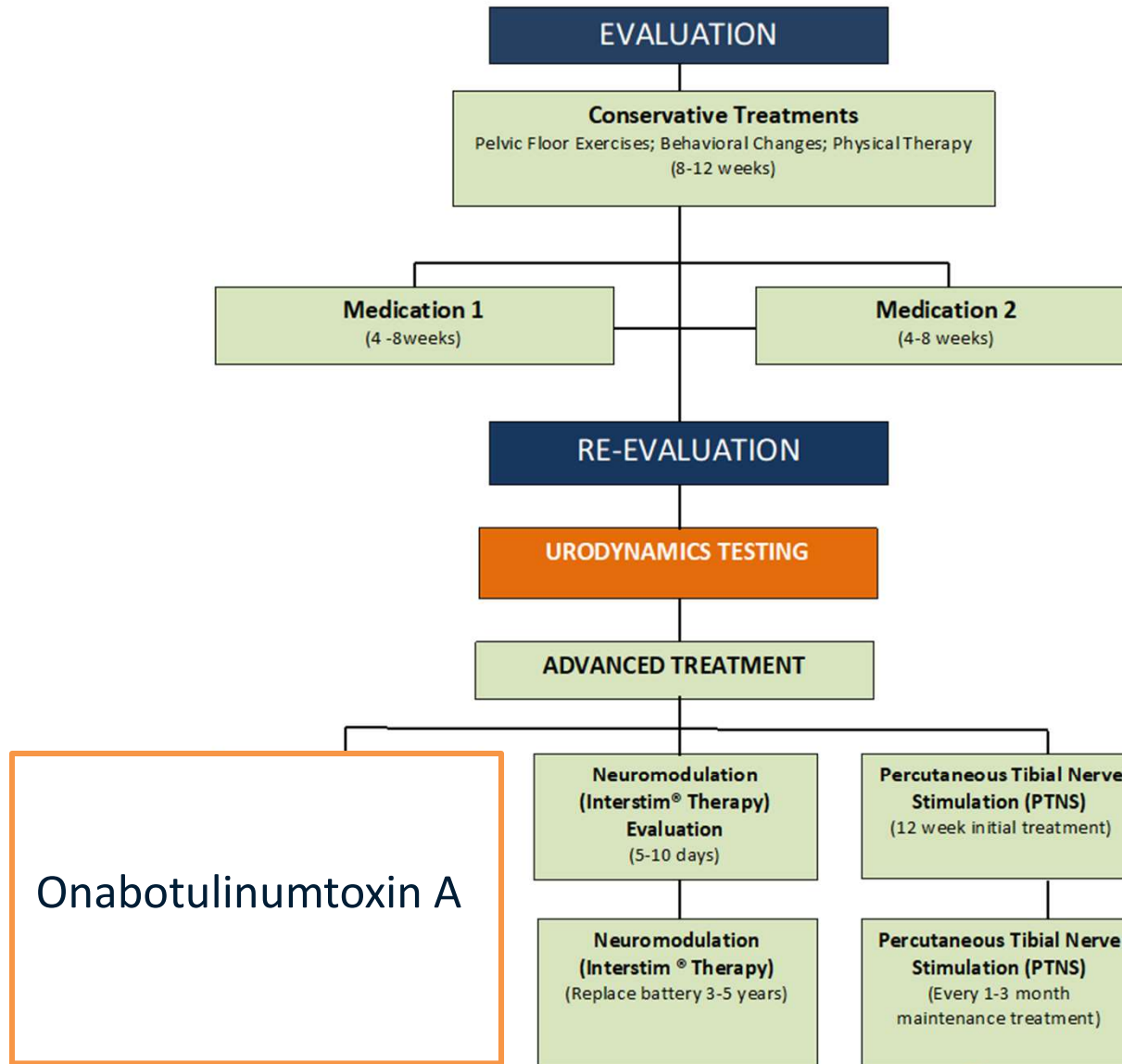
UA: neg

PVR: 5cc

PMHx: none



OVERACTIVE BLADDER TREATMENT PATHWAY



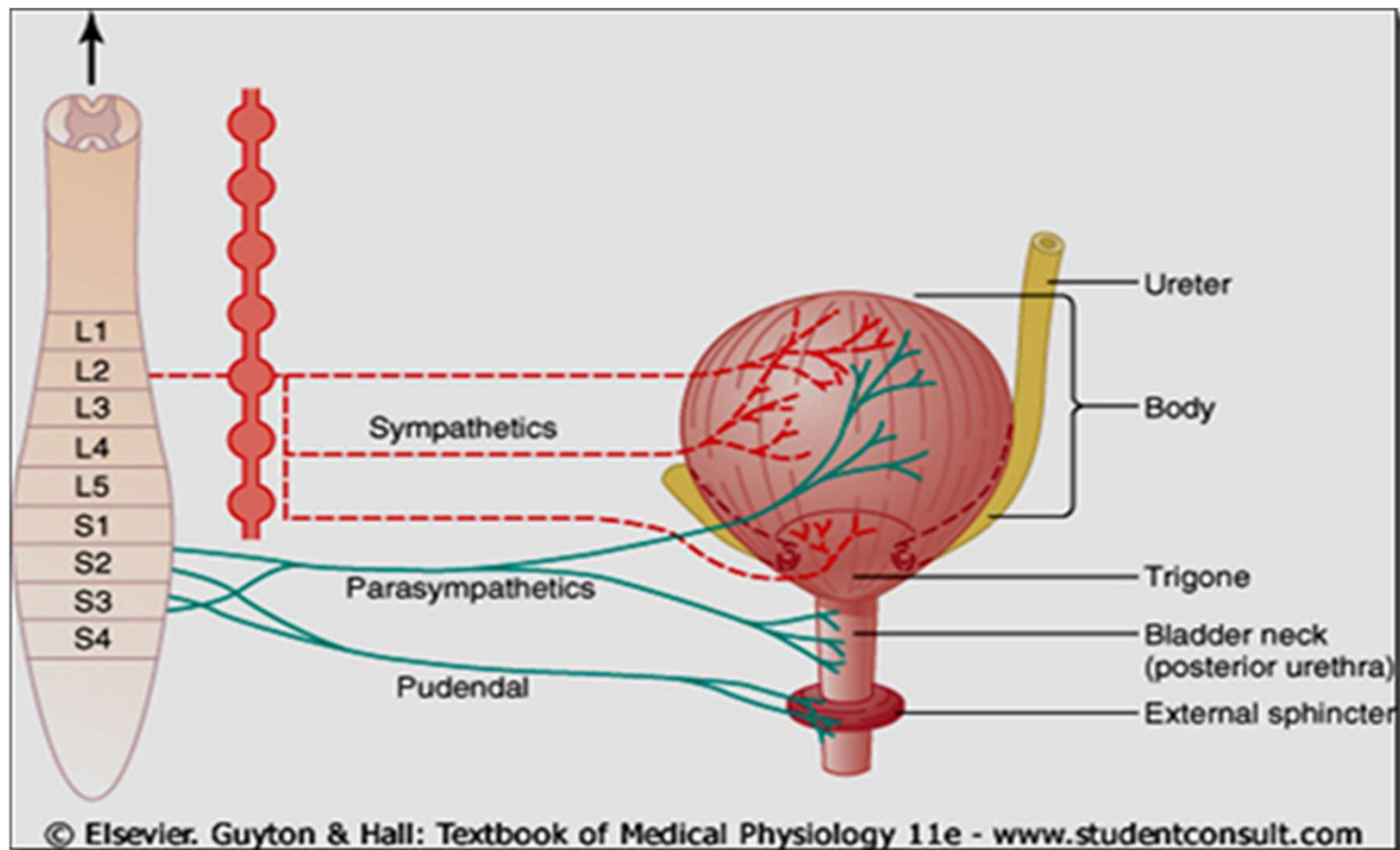
Overactive Bladder

A symptom complex that is characterized by urinary urgency, with or without urgency-associated urinary incontinence

Urgency: the sudden compelling desire to urinate which is difficult to defer

Urinary frequency: voiding 8 or more times in a 24-hour period

Overactive Bladder – Pathophysiology



Overactive Bladder – Evaluation

Rule out:

- Urinary tract infection (hematuria, pyuria)
- Polyuria
- Incomplete bladder emptying (PVR, bladder scan)
- Medications (antidepressants, diuretics)
- Transitional cell carcinoma of the bladder (cystoscopy, urine cytology)
- Neurologic abnormalities (CVA, MS)
- Dietary factors (caffeine, ETOH, acidic foods, spicy foods)
- Dysfunctional voiding habits (nocturia, high volume intake)

Overactive Bladder – 1st line

Behavioral therapies include:

- fluid management

- bladder training

- bladder control strategies

- urgency suppression

- pelvic floor muscle training.

All these approaches can be supplemented with
biofeedback techniques

Overactive Bladder – 2nd line

Medication	T1/2	Bio-availability	SEs
Oxybutynin	2-3	25% increase	Dry mouth (71.4%), dizziness (16.6%), constipation (15.1%), somnolence (14%)
Darifenacin	13-19	None	Dry mouth (35%), constipation (21%), dyspepsia (9%), UTI (5%), abdominal pain (4%)
Solifenacin	45-68	3% increase	Dry mouth (28%), constipation (13%), UTI (5%), blurry vision (5%)
Tolterodine*	3	53% increase	Dry mouth (39.5%), dysuria (1-10%), blurred vision (5%), urinary retention (1.7%)
Fesoterodine*	5	None	Dry Mouth (18.8-34.6%) constipation (4.2-6.0%)
Trospium	20	80% decrease	Dry mouth (20%), constipation (10%), headache (4%)
Mirabegron	50	29% decrease	Hypertension (7.5-11.3%),
Vibegron	31	20-47% decrease	Urinary tract infection (6.6%), headache (4%), nasopharyngitis (2.8%), diarrhea (2.2%), nausea (2.2%)

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Anticholinergics – SE

- Confusion
- Constipation
- Dizziness
- Drowsiness
- Dry mouth
- Headache
- Nausea
- Nervousness
- Rapid heart rate (tachycardia)
- Urinary retention
- Visual blurring

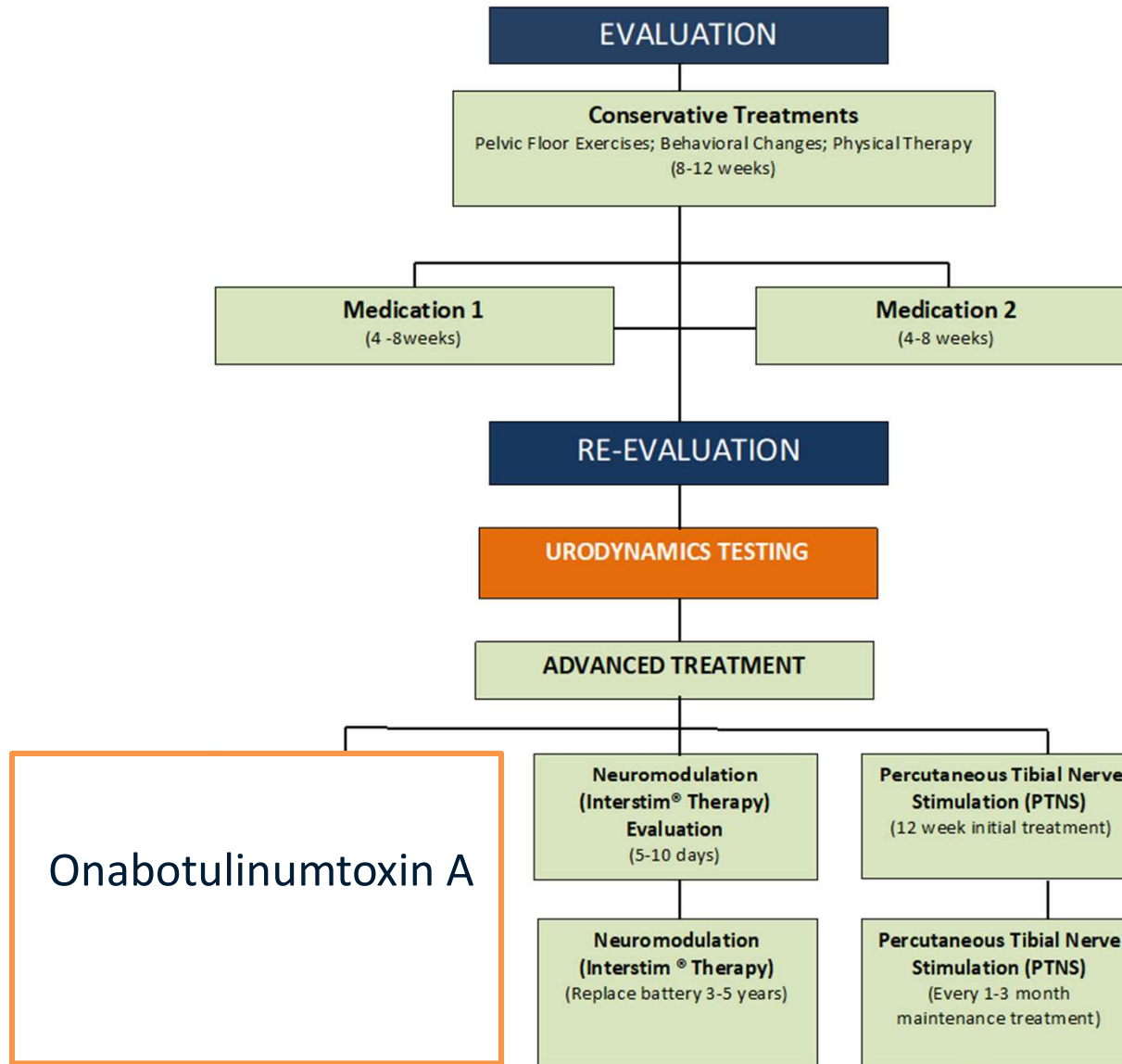
Patients who have an adverse reaction to the drug or who have the following conditions should not use these medications:

Urinary retention

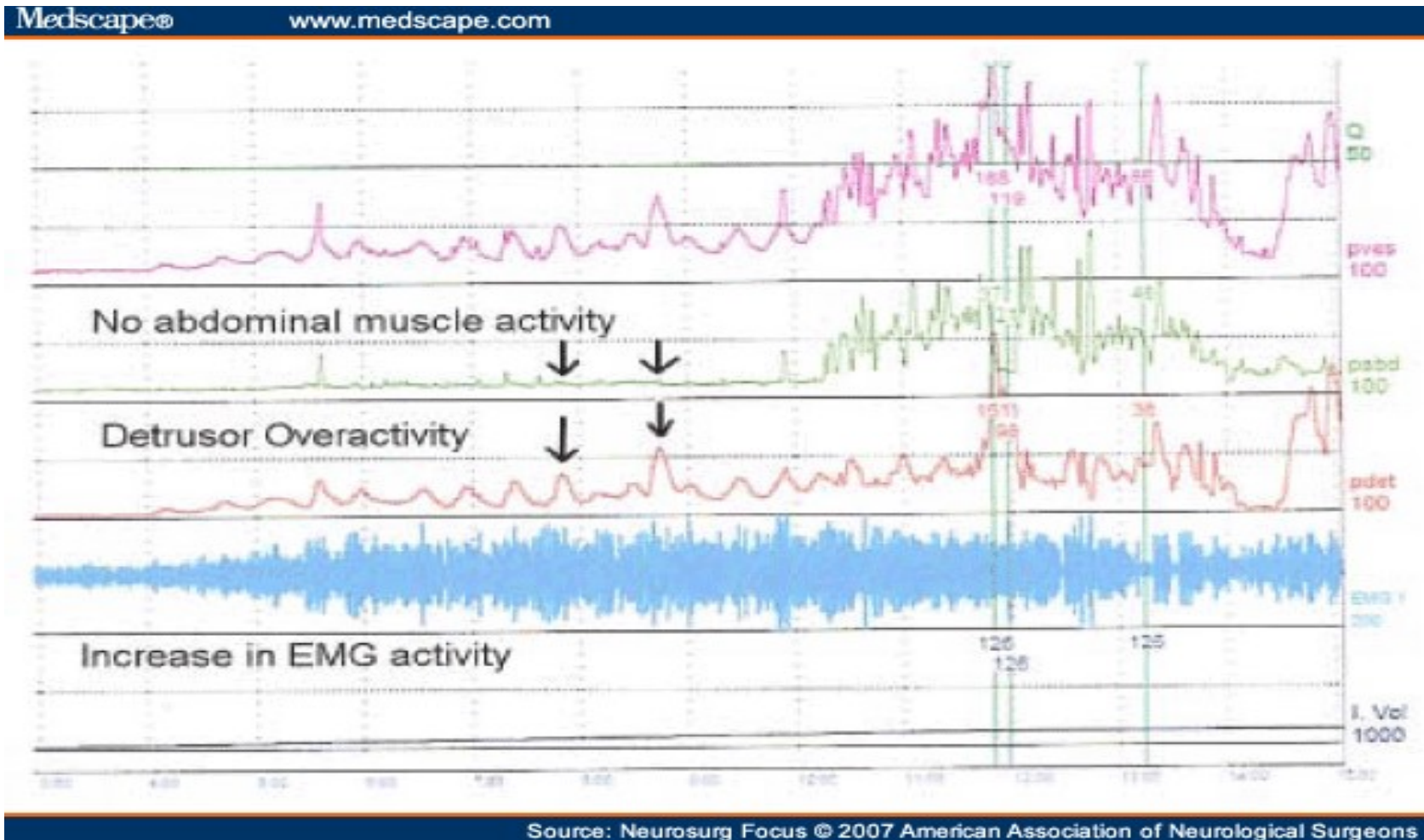
Gastric retention

Narrow-angle glaucoma

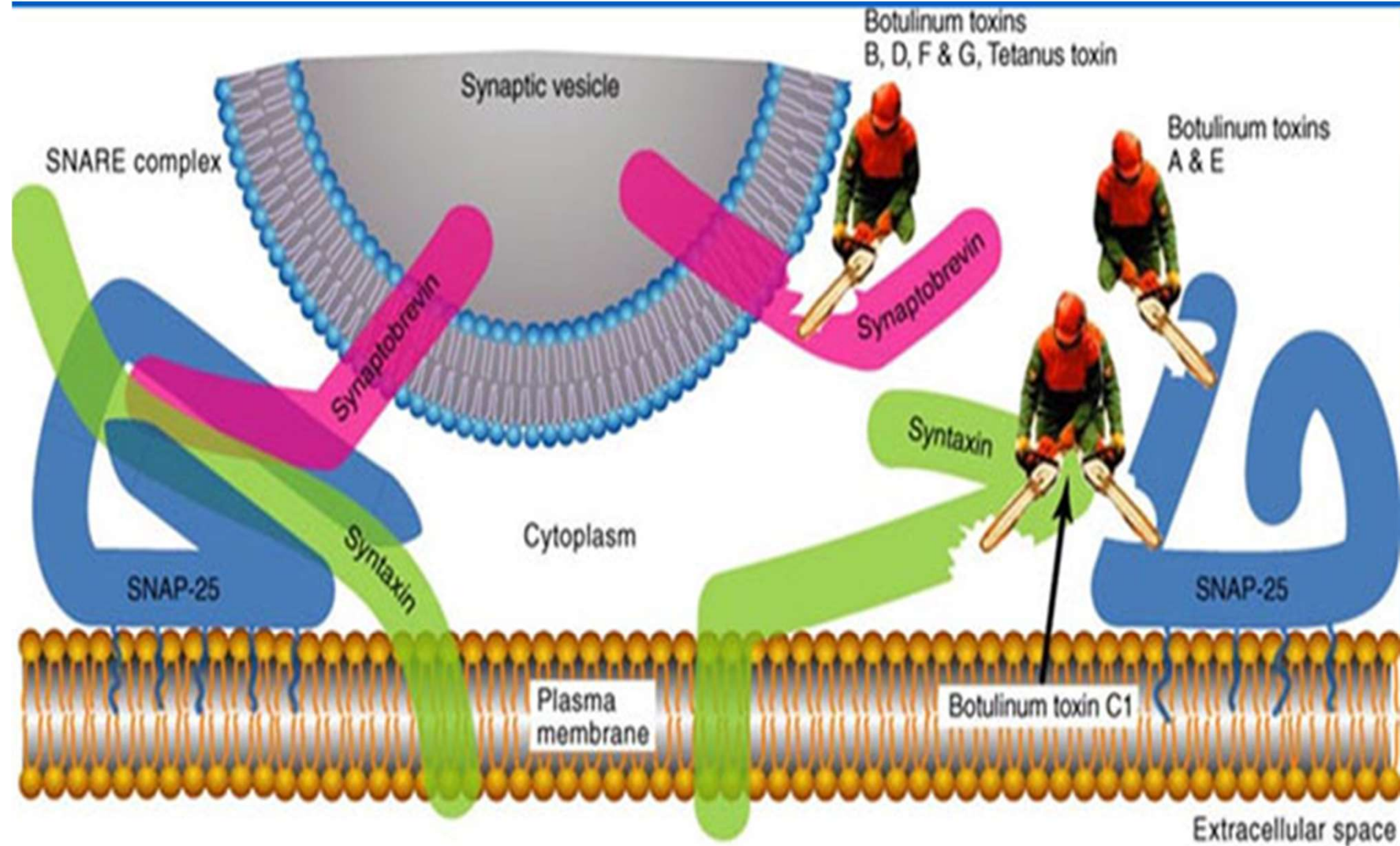
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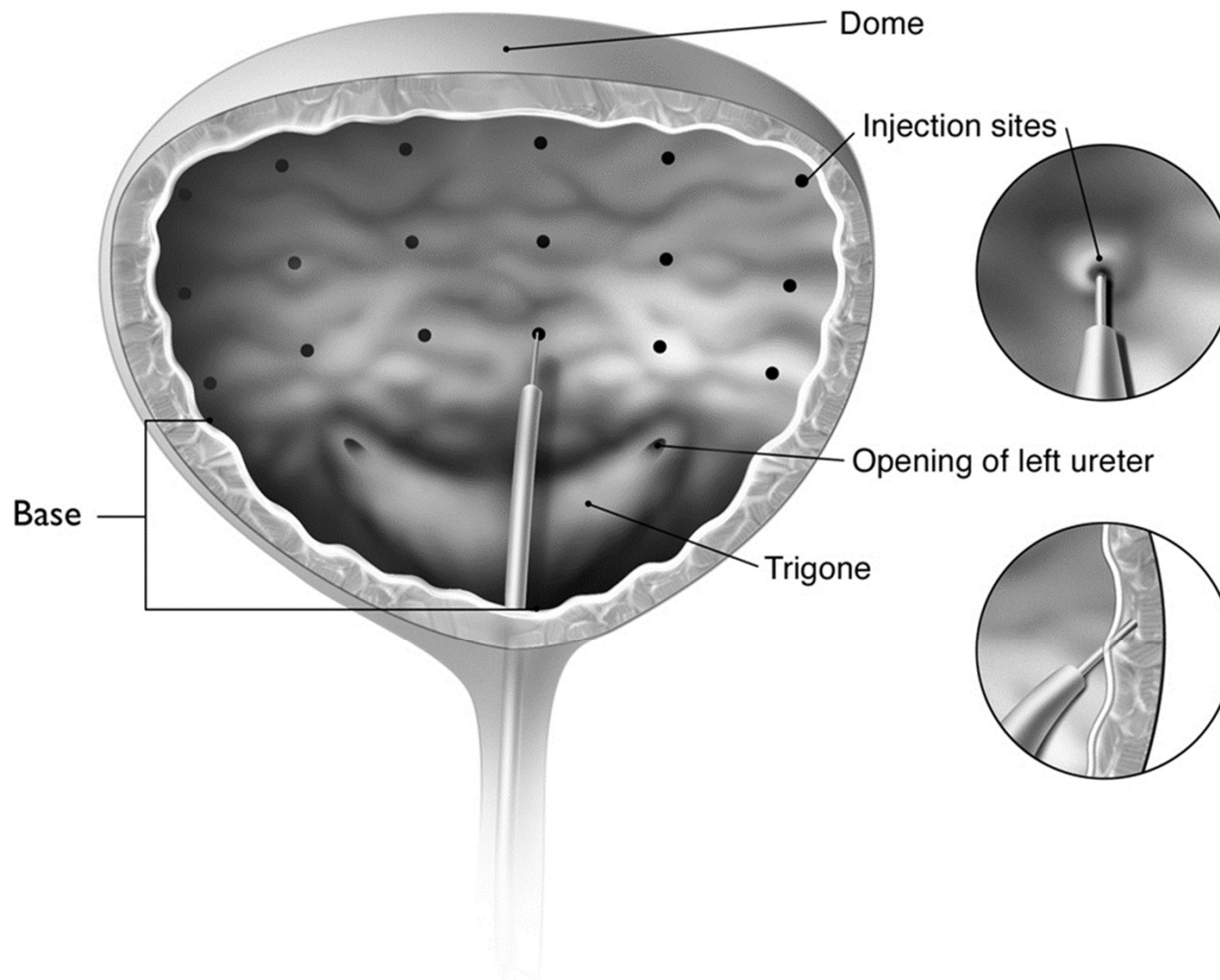
Overactive Bladder – Pathophysiology



Intravesical onabotulinumtoxin A [Botox] injection



Intravesical onabotulinumtoxin A (Botox) injection



Sacral Nerve Modulation

Neuromodulation (InterStim® or Axonics therapy) is a reversible treatment for people with urge incontinence caused by overactive bladder who do not respond to behavioral treatments or medication.

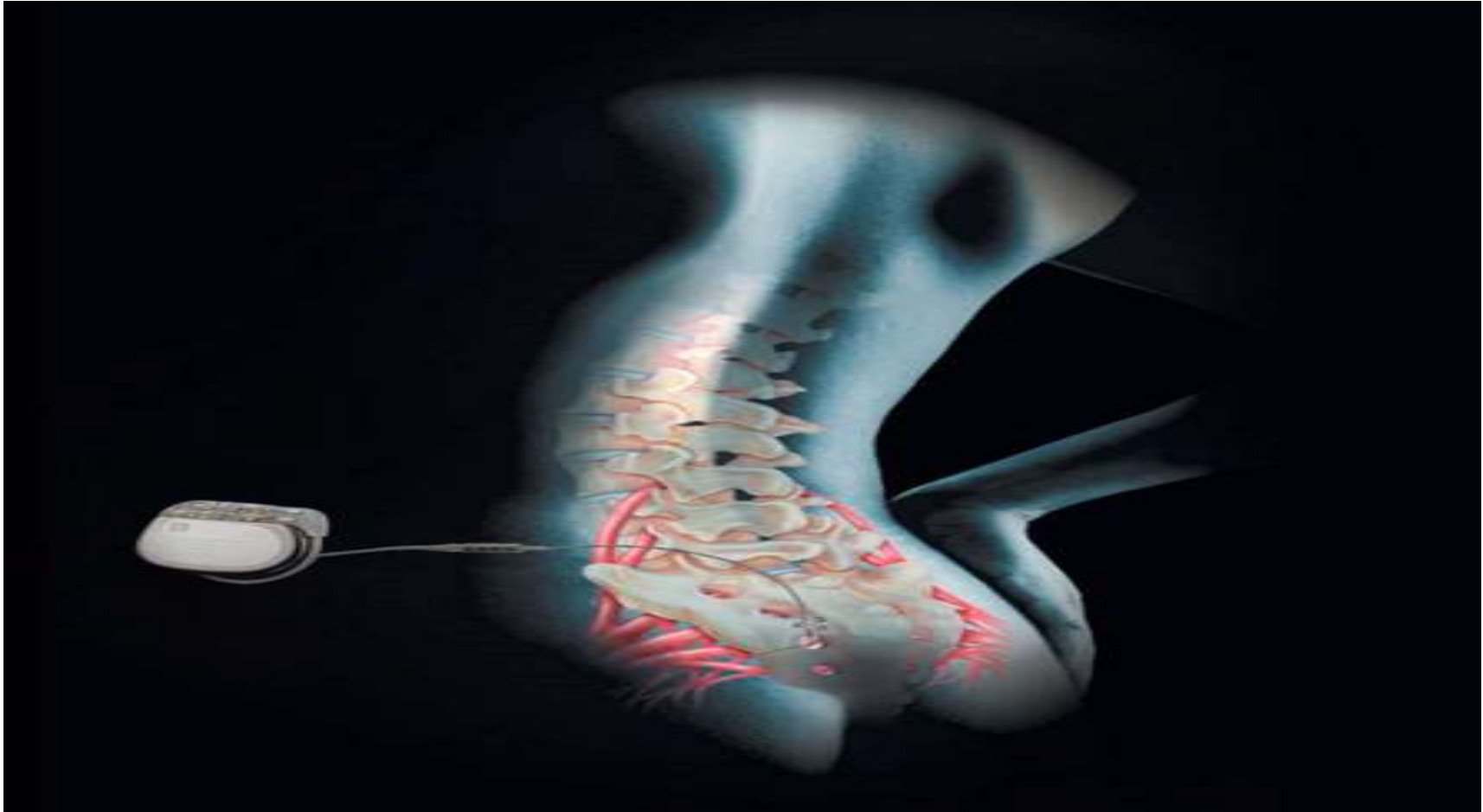
Neuromodulation systems are implanted systems that sends mild electrical pulses to the sacral nerve, the nerve near the tailbone that influences bladder control muscles. Stimulation of this nerve may relieve the symptoms related to urge incontinence.

It is a staged procedure, where the nerves are tested. If the implant works, the pacemaker is then placed.

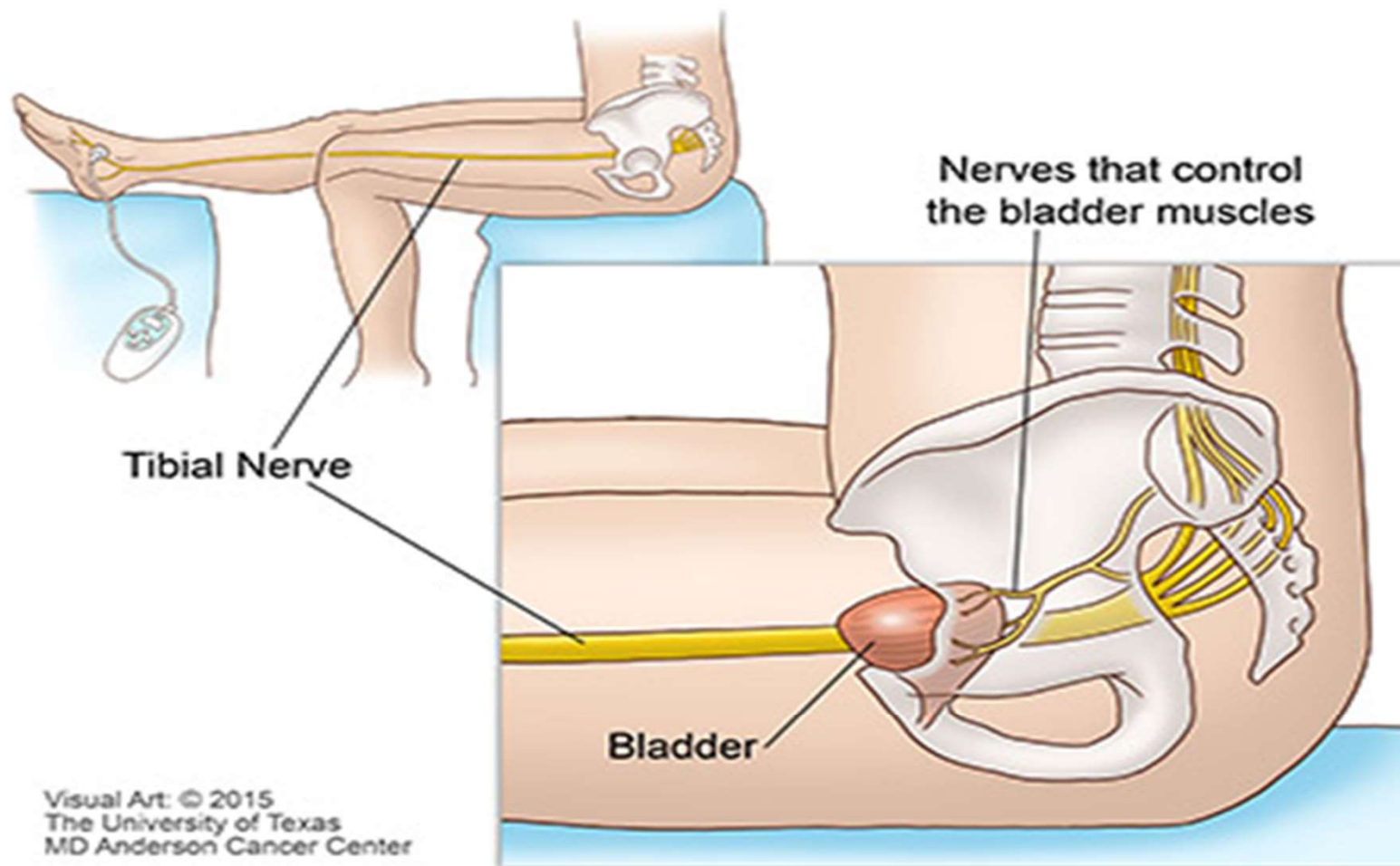
The procedure requires only sedation.



Sacral Nerve Modulation



Posterior Tibial Nerve Stimulation



Case 1: 43 y.o F with urinary complaints

Did well on the trospium ER [Sanctura ER] with no complaints