High Prevalence of Bladder Neck Obstruction (BNO) Suggested in Patients with Refractory Chronic Pelvic Pain (CPP) and Small Fiber Polyneuropathy (SFPN)

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BACKGROUND

SFPN is associated with multi-symptom pain syndromes and widespread chronic pain.

64% of patients with complex CPP (refractory or multi-symptom syndromes) had SFPN diagnosed on skin biopsy.

We observed clinically a high prevalence of bladder neck obstruction (BNO) in patients with CPP and SFPN.

METHODS

Female complex CPP patients seen in urology and neurology subspecialty referral clinics were included if they had both:

1. Positive biopsy for SFPN (3mm punch biopsies of the thigh and distal calf)
2. Urodynamic testing completed

Prevalence of BNO was measured.

Therapies for BNO queried included physiotherapy, alpha blockers, Onabotulinum toxin A, and sacral neuromodulation.

Patient-reported outcomes were collected.

RESULTS

Out of 15 patients with complex CPP, skin biopsy positive for SFPN, who underwent UDS:

- 9/15 (60%) demonstrated obstructive parameters referable to the bladder neck
- 6/15 (40%) had no detrusor contraction despite running water, privacy, and provocative fill.

13/15 patients underwent cystoscopy:

- 11/13 demonstrated high bladder neck or trabeculations.

Average pdetQmax=31.3 (SD=13.2).

Average Qmax=6.9 (SD=6.5).

INTERPRETATION

Patients selected for both complex CPP and coexistent SFPN demonstrate high incidences of urodynamic voiding dysfunction and BOO. Treatment response varied.

TREATMENT CATALOGUE:

- Pelvic PT worked at first and would not be discouraged in a multidisciplinary approach, but all patients with SFPN complex CPP regressed, per inclusion.
- Sacral Neuromodulation benefitted one of two patients.
- Onabotulinum toxin A to the levator muscles benefitted only 1/6 patients.
- Sympatholytic agents such as alpha blockers and onabotulinum toxin A can decrease obstruction at the bladder neck.
- Alpha blockers were tried most often with an improvement rate of 57%.
- Onabotulinum toxin A inhibits release of neurotransmitters in transmission of pain, such as calcitonin gene-related peptide (cGRP) and substance P.
- Acts as an analgesic, which can enhance perceived benefit [2].
- Theoretically helpful, but only 1/2 patients reported benefit with onabotulinum toxin A in bladder neck.

CONCLUSIONS

Identifying small fiber polyneuropathy (SFPN) in patients with complex chronic pelvic pain (CPP) may lead to systemic therapies such as lidocaine infusion or IVIG. The exact role of loss of small fibers is unknown, but SFPN should be sought in the multimodal approach to LUTS and pelvic pain.

Preliminary data shows complex CPP patients with SFPN and LUTS should be evaluated for BNO.

Identifying BNO and SFPN may direct local therapies for LUTS in this difficult population.

Affiliations to disclose†:

None

† All financial ties (over the last year) that you may have with any business organisation with respect to the subjects mentioned during your presentation

Funding for speaker to attend:

- Self-funded
  - Institution (non-industry) funded
  - Sponsored by: