



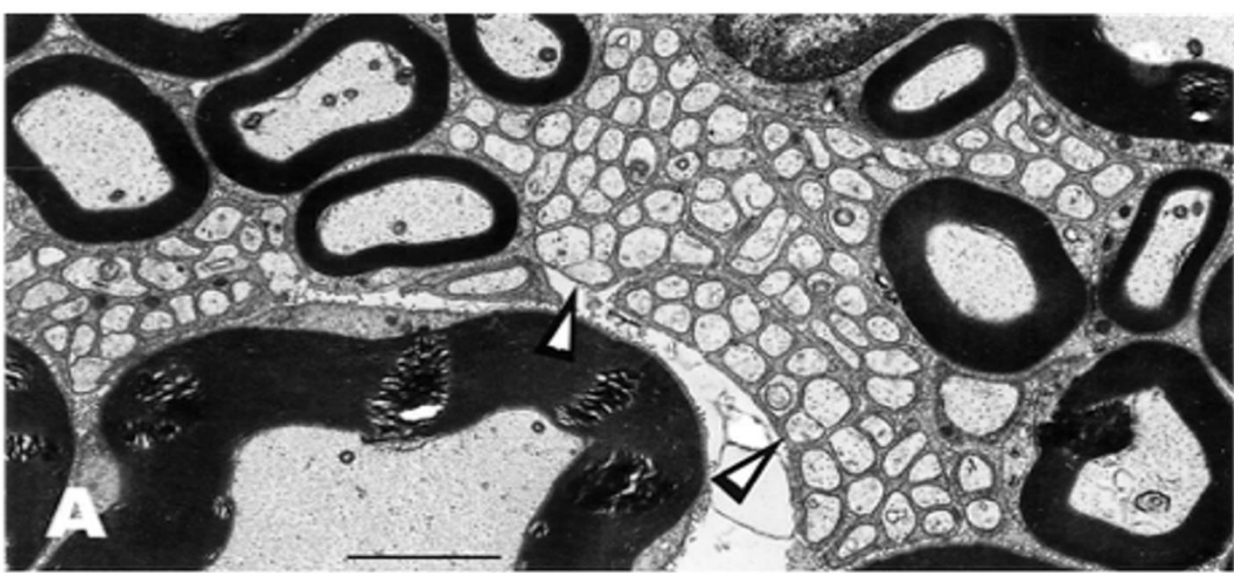
Prevalence of Multidisciplinary Pelvic Symptoms in Patients with Small Fiber Neuropathy

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Introduction & Hypothesis

- Small fiber neuropathy (SFN) is a debilitating condition which leads to somatic pain and autonomic dysfunction.
- Injury to the peripheral nerves predominantly impacts thinly myelinated A-Delta and unmyelinated C fibers.¹



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- **Hypothesis: Patients with SFN will have a high prevalence of symptoms relevant to pelvic health specialists:** urinary, defecatory, sexual, and pain symptoms in addition to systemic autonomic and pain symptoms and psychological impact.

Study Design

259 patients completed a comprehensive multidisciplinary electronic intake for our adult Urology Urogynecology and Reconstructive Pelvic Surgery clinic.

- **Participants:**
 - 215 (83%) female, 17 (8%) had SFN
 - 38 (14.7%) male, 1 (3%) had SFN
 - 6 (2.3%) transgender, 1 (17%) had SFN
- **Statistical analysis:** Unpaired t-tests
- **Validated measures:**
 - UDI-6, IPSS (urinary symptoms)
 - CRAD-8 (lower urinary tract symptoms)
 - POPDI-6 (pelvic organ prolapse)
 - GUPI pain sub-scales/total and quality of life scores (genitourinary pain)
 - PISQIR, SHIM (sexual function)
 - PHQ4 (anxiety and depression)
- **Unvalidated measures:**
 - Autonomic symptom tally
 - Neuro-urological symptom tally

Results & Interpretation

Table 1: Associations with Small Fiber Neuropathy

Symptom Score	SFN (+) (mean ± std dev)	SFN (-) (mean ± std dev)	T value	P value
POPDI-6	40.9 ± 23.4	30 ± 21.3	-2.27	0.036
# Autonomic ROS	12.36 ± 5.77	4.04 ± 4.32	-5.26	<0.001
PHQ-4	5.0 ± 3.14	2.27 ± 3.65	-3.07	0.006
UDI-6	61.2 ± 20.0	43.3 ± 25.3	-3.09	0.007
# Neurological ROS	5.63 ± 2.97	1.97 ± 2.34	-5.23	<0.001
IPSS QOL	4.95 ± 1.27	4.2 ± 1.52	-2.37	0.026
GUPI pain Subscale	13.94 ± 6.12	6.79 ± 6.8	-4.62	<0.001
Intensity of Orgasm	2.0 ± 0.996	2.728 ± 0.775	2.85	0.013
Pain with Intercourse	3.44 ± 0.88	2.6 ± 1.19	-2.26	0.024
PISQR Score	2.9 ± 0.19	3.538 ± 0.07	3.09	0.009
Sexual Adequacy	2.64 ± 1.4	3.63 ± 1.31	2.2	0.048
Pain in last 30 days	8.06 ± 1.48	6.96 ± 2.53	-2.31	0.026
GUPI QOL Score	6.53 ± 1.96	5.29 ± 2.49	-2.15	0.042

SFN is strongly associated with:

- Urinary symptoms
- Prolapse symptoms
- Genitourinary pain
 - Pain in the last 30 days
- Sexual health & function
 - Intensity of orgasms
 - Pain with intercourse
 - Sexual adequacy
- Autonomic symptoms
- Neuro-urological symptoms
- Depression/anxiety
- Reduced quality of life

Even within a patient population presenting for subspecialty Urology Urogynecology and Reconstructive Pelvic Surgery clinic.

Conclusions

- Small fiber neuropathy is associated with a high prevalence of symptoms relevant to pelvic health specialists.
- **Pelvic health specialists are front-line for patients with small fiber neuropathy due to dysfunction of the autonomic nerves and somatic pain fibers.**
- Patients presenting with multi-system pelvic symptomatology and chronic overlapping pain symptoms such as interstitial cystitis, migraine, dizziness, hearing loss, and anxiety should be referred to a neurologist with expertise in autonomic dysfunction for evaluation for SFN or its mimics.

References