

From Neuromodulation to Augmentation Cystoplasty: A Surgical Pathway for Refractory Pelvic Pain Management?

Castilho M¹, Abadesso Lopes F¹, Jin Ye A¹, Simões Oliveira P¹, Palma dos Reis J¹, Pereira e Silva R¹

1. Serviço de Urologia, Hospital Santa Maria, Centro Hospitalar Universitário Lisboa Norte, Portugal

BACKGROUND

Bladder pain syndrome is a complex entity. Sacral neuromodulation is a possible treatment option and can delay or surpass the necessity for more invasive treatments. However, when unsuccessful, augmentation cystoplasty may be a valid option, with a specific patient phenotype, namely patients with reduced bladder capacity.

METHODS

Patients were included after a prospectively secondary analysis in the Department Database of patients submitted to augmentation cystoplasty after sacral neuromodulation.

Phenotyping of pelvic pain accordingly to the UPOINT classification was performed, the severity of pain assessed with the visual analog scale and were evaluated using the Interstitial Cystitis Symptom Index (ICSI).

In the diagnostic assessment, the voiding diary and urodynamic evaluation was also performed.

RESULTS

Two patients were included in the study. Both experienced suprapubic pain associated with micturition for more than a decade.

Nº	Age	Urinary Frequency	Nocturia	Bladder capacity	Pain Levels	ICSI
1	58	>15	10	<200mL	10/10	36/36
2	64					

The UDS revealed intense bladder oversensitivity and detrusor underactivity in both.

A tiered therapy was initiated with conservative therapies alongside oral medication, however with low efficacy.

Sacral neuromodulation was performed with a decent improvement on their pain and quality of life. However, after 4-5 years the effect diminished and the severity of the pain warranted the necessity of a surgical approach

The patients were young and otherwise healthy and an augmentation cystoplasty was performed, without relevant surgical complications.

Nº	Bladder capacity	Pain Levels	ICSI
1	>200mL	5/10	13/36
2			18/36

IMPLICATIONS

Sacral neuromodulation is not formally approved for the treatment of bladder pain syndrome. Nonetheless, results in this area are encouraging, possible due to the effects on pain gate regulation at higher spinal segment levels, being considered a potential fourth line treatment.

It may help defer or even obviate the need for major surgical procedures in this patient population.

However, for the patients with unsatisfactory results or relapse after an initial good response, an augmentation cystoplasty may be an option. especially for low volume bladders, providing increased capacity and lowering storage pressures, potentially leading to significant improvements in symptomatic burden and quality of life.