

Advancing Health

A CASE STUDY from MedStar Washington Hospital Center

Treating Refractory Overactive Bladder: **Neurostimulation for Improved Bladder Control**

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Abstract

A 58-year-old female was diagnosed with refractory overactive bladder. When conservative treatments failed to adequately control her incontinence, she underwent successful bladder control therapy with an implantable neurostimulator.

CASE STUDY

Neurostimulation for Improved Bladder Control

Patient Presentation

- A 58-year-old female, referred by her gynecologist, presented with urinary urgency, frequency and urinary and bowel incontinence.
- The patient had tried a variety of overactive bladder medications, including oxybutynin and mirabegron, but they were inadequate in controlling her urinary condition and caused bothersome side effects such as dry mouth, dry eyes and constipation.
- Conservative measures, such as pelvic floor physical therapy and Kegel exercises, had also failed to improve her condition.

Assessment

- Urodynamic testing confirmed an overactive, but otherwise normal bladder.
- No neurologic conditions found contributing to her overactive bladder.

Treatment

- Having exhausted conservative treatments and medical options, the patient underwent bladder control therapy using neurostimulation, in which an implantable device transmits mild electrical pulses to the sacral nerves, helping to regulate bladder and bowel activity. The implantable device is placed through two outpatient procedures.
- Procedure 1: Using fluoroscopic imaging, a subcutaneous

neuromodulation electrode was implanted near the patient's sacrum during a one-hour procedure. Over the following two-week trial period, she worked with the treatment team to adjust the settings, using an external programmer. The electrode's functioning was also tracked during daily check-ins and consultations.

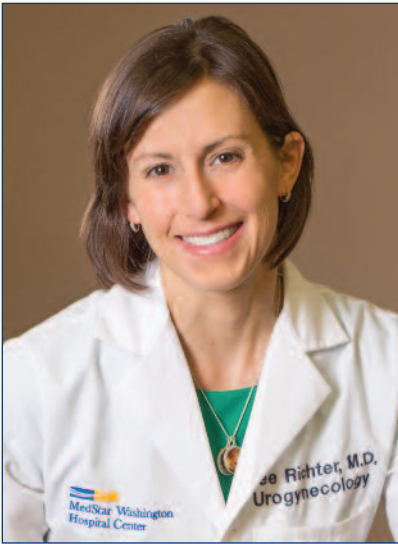
- Procedure 2: Based on the significant decrease in urinary and fecal incontinence, the external programmer was replaced with a permanent neurostimulator implant under the skin of the lower back during a short outpatient procedure.

Outcomes

- The patient now experiences normal bladder and bowel function, and has resumed her normal activities.

Conclusion

- Neurostimulation is a potentially viable option for treating cases of refractory overactive bladder, in which conservative treatments such as behavioral adjustments, medication and physical therapy have proven insufficient.
- Long-term maintenance of the stimulator and controller may be required, with periodic office checks and adjustments to adapt to changes in physiology. However, such situations are rare and relatively simple to implement.



Lee Ann Richter, MD

“Severe overactive bladder can be a challenge to treat.

Neurostimulation therapy is a valuable treatment option that not only improves an uncomfortable condition, but also helps restore a woman’s self confidence and ability to lead a normal life. It’s satisfying as a physician to provide a solution for challenging cases where other options have been unsuccessful.”

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