Helping patients with voiding dysfunction: What are our current options?

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See related article on page 403.

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Patients with voiding dysfunction, such as overactive bladder (OAB) syndrome and non-obstructive retention, who have failed conservative treatment are candidates for sacral nerve stimulation (SNS). Sacral nerve stimulation was originally described by Tanagho and Schmidt.[1] Medtronic received United States Food and Drug Administration (FDA) approval for Interstim in July 1998 for urge incontinence. To proceed with full implant, patients were initially tested with a percutaneous nerve evaluation (PNE). The percutaneous permanent tined lead (PPTL) was released in 2002 and is now the most commonly used procedure performed prior to a patient receiving a permanent implant.[2] The advantage of the PPTL over PNE is higher implantation rates 88% versus 46%.[3]

Richard and colleagues used an interesting approach looking at the PNE as an adjunct to the PPTL and the implanted pulse generator implant. They performed a retrospective chart review of 106 patients who underwent 116 PNEs. Of these 116 patients, 62 (53%) had a successful PNE. Of these successful cases, 57 (92%) went on to an implant. Using the PNE allowed them to pre-select patients for PPTL, which increased their overall success.[4]

The authors address noteworthy considerations in their approach to SNS. The most worthwhile is the use of a 60% goal for symptom improvement compared to the standard 50%, which was an initial arbitrary goal. Some may argue we should consider an even higher improvement rate, possibly 70%. The authors astutely point out that the placebo success rate for anticholinergics can be as high as 60%, clearly explaining why some patients do not improve even after a full implant. Considering the significant expense of the product, elimination of the placebo effect would decrease cost, improve efficacy and prevent unnecessary procedures. Additionally, the authors discuss the prospect that using this three-stage approach may reduce the overall cost of SNS, as the cost of the PPTL staged approach is significantly less than a PNE. This may reduce the general cost to society; however, with the lower success rate of PNE, one cannot help but wonder if treatment is being withheld from some patients who are suffering.

The authors should be commended for reviewing their data and trying to identify cost-efficient and more efficacious methods of providing care for their patients. A large multicentre trial evaluating cost and efficacy would be optimal, but unfortunately improbable. As new treatment modalities enter the market, we must continue to assume the responsibility to weigh their costs and benefits to achieve the best outcomes for the greatest number of patients.

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