

URINARY INCONTINENCE

**Electrical stimulation is effective
in children with OAB**

The benefits of parasacral transcutaneous electrical nerve stimulation (PSTENS) for children with overactive bladder (OAB) have been confirmed in a prospective, randomized, controlled trial reported in the August issue of *The Journal of Urology*.

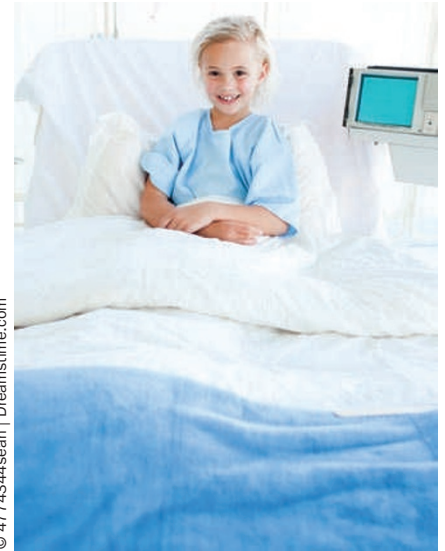
Researchers randomly assigned 37 children (25 girls and 12 boys; mean age 7.6 years) with OAB symptoms to receive either PSTENS ($n = 21$) or sham stimulation to the scapular ($n = 16$). All patients received three 20 min sessions per week.

After 20 sessions, parents were asked to rate whether their child's symptoms had improved; 62% of test group parents reported complete resolution of symptoms compared to 0% in the sham group. Statistically significant improvements in maximum voided volume, average voided volume and number of daily voids were also experienced by children who underwent PSTENS but not sham therapy.

Modified Toronto scores, which provide an objective standardized measure of the severity of voiding disorders in children, were found to be markedly lower after treatment in both test and control groups ($P < 0.001$ and $P = 0.008$, respectively), although the difference was much greater in children who received PSTENS.

For both groups to experience some level of symptomatic improvement is perhaps not surprising; all children in this study received behavioral training in the form of a booklet highlighting the importance of voiding before bed and increasing fluid intake. However, the authors emphasize that complete cure was experienced only by children who received PSTENS, and recommend that behavioral therapy be given to all children who undergo electrical stimulation.

Given the invasive nature of PSTENS, it might not overtake medical therapy as the treatment of choice for children



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with OAB. Nevertheless, it remains an attractive option for patients who have failed on, or are unable to tolerate, anticholinergic agents such as oxybutynin or tolterodine.

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Original article Lordêlo, P. *et al.* Transcutaneous electrical nerve stimulation in children with overactive bladder: a randomized clinical trial. *J. Urol.* **184**, 683–689 (2010)