

THE EFFECT OF TRIPLE MEDICATION TREATMENT FOR BLADDER-SPHINCTER DYSSYNERGIA ON THE DEVELOPMENT OF COMPLICATIONS IN PERSONS WITH SPINAL CORD INJURY

Hypothesis / aims of study

To assess the efficacy of triple medical therapy (anticholinergic, alpha-adrenergic blocker, tricyclic antidepressant) at preventing the complications of neurogenic bladder (NGB) and the avoidance of urological surgery in spinal cord injury (SCI) patients.

Study design, materials and methods

Retrospective chart review of urodynamic studies, medical therapy and surgery in SCI patients managed with intermittent catheterization receiving urological follow-up at a Model SCI program.

Results

78 male patients (41 with cervical SCI, 28 thoracic SCI) were reviewed. All have an intermittent catheterization program. 9 required surgical intervention for detrusor-sphincter dysynergia with poor bladder compliance, including 5 augmentation cystoplasties, 1 detrusor myomectomy, 3 ileovesicostomies. This occurred on average at 49 months after injury, and DSD was initially documented at an average of 33.6 months after injury. 7 of the 9 surgical patients had some medication to treat their neurogenic bladder prior to surgery, though only one had been on triple therapy medications. 8 patients had severe enough symptoms that they received botulinum toxin injections to the sphincter or bladder, but had no other surgical procedure. 58 patients have been followed on average 115 months after injury and have not required surgery to date, 15 are currently on triple therapy, 35 of these 58 patients are on one or two agents to control their bladder. 9 of the 58 have documented detrusor-sphincter dysynergia and 16 have abnormal compliance on urodynamic studies. Of the 9 with DSD, this was first reported by urodynamic studies at 55.3 months after injury.

Interpretation of results

Spinal cord injured patients that have required urological surgery to treat sequelae of neurogenic bladder had manifested DSD within 3 years of injury and tended to require surgery within about 4 years. Of the patients with documented DSD, a larger number have been started on triple medication therapy as well as have received botulinum toxin injection. Triple medication therapy may correlate with avoidance of urologic surgical intervention in SCI patient with NGB.

Concluding message

Triple medication therapy appears to relate to the ability to avoid complications requiring surgical treatment. Further study will require the identification of symptoms associated with DSD and the time course to begin this regimen in a prospective trial to prevent surgical complications of neurogenic bladder after SCI.

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<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	Institutional Research Board (IRB)
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes