

Detrusor sphincter and detrusor anal sphincter dyssnergia; Its relevance to bladder and bowel dysfunctions

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The term detrusor sphincter dyssnergia (DSD) indicated uncoordinated external urethral sphincter (EUS) on attempted voiding in spinal cord injury patients. In normal persons attempted voiding leads to the relaxation of the external urethral sphincter; however in any supraconal spinal cord lesion below Pontine Micturition Center, there is a failure of relaxation of the urethral sphincter which leads to retention of urine. In incomplete lesions there may be some intermittent relaxation on attempted voiding which was referred as dyssnergic response. The ICS standard terminology for DSD agreed in 1998. Since anal external sphincter and external urethra sphincter share essentially the same innervations; these patients also have Anorectal and Pelvic floor dyssnergia (PVD) following spinal cord lesions. This condition thus can contribute to some forms of constipation, complaints of incomplete evacuation, and straining with stool. It needs to be differentiated from functional obstructed constipation.

Critique on PFD in bowel dysfunctions:

The term PFD like DSD could indicate an associated neurologic impairment. It seems appropriate to refer Pelvic floor dyssnergia as a dyssnergic response (PFDR) unless it is associated with a definable neurologic impairment. The term PFDR seems more appropriate with absent neurologic lesion. This also mandates a neurologic assessment and digital rectal examination along with Anorectal Manometry (with EMG) in all such patients. Anorectal Manometry "may be falsely positive for dyssnergia in 15% of asymptomatic subjects," according to one study cited by the authors. Unfortunately it seems that rectal examination and anorectal neurologic assessment has not been an emphasized practice in published studies.

Management Strategies for PFDR

Since pelvic floor muscles are controlled voluntarily; their function can be improved through various learning procedures, such as biofeedback. However, biofeedback is not effective in patients with neurologic impairment unless it is an incomplete lesion. It is therefore important to rule out any neurologic impairment with a careful neurologic examination along with ARM studies for its effective role. In majority of the patients, an approach to the bowel program for adequate evacuation is individualized with a set time, diet control, and digital stimulation with and without a glycerin suppository. Neurologic impaired patients spending more than one hour on bowel program with lots of bowel symptoms, failed conservative management and prolonged colonic transit time benefitted with transverse colostomy.

Biography

Inder Perakash, M.D., FRCS, FACS born in Pakistan and in 1947 migrated to India. He has completed his education in India, England and USA. He received PMR-Baylor Houston 1971-73 Fellowship in Urology at Hammersmith Hospital and Postgraduate Medical School London and also Urology fellowship at Stanford, 1964-65. He started and developed Spinal Cord Injury Centers at VA Baylor and VA Palo Alto, Stanford and helped to blue print the First National SCI Center in New Delhi, India. Under a congressional mandate, he helped develop concept of Rehabilitation Engineering Research and Development (RERD) in a special meeting with a congressional subcommittee at Pomona, 1976. He was awarded Physician of the year by State of California in 1989. He has received several academic and congressional recognition awards. He was awarded the first endowed PVA Spinal cord injury professor ship chair at Stanford in 1981 and is section editor of AMA Disability evaluation book. Inder Perakash has published and presented over 400 papers. He is Retired VA at Stanford, April 2010 and recalled at Stanford to set up a center for neuro-bowel evaluation lab and designated as a Professor of Medicine.

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