A Psychophysiological Evaluation of Female Urethral Syndrome: Evidence for a Muscular Abnormality

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This is a preliminary investigation into a recently defined urological disorder occurring in a subgroup of women with "urethral syndrome" suggestive of pelvic floor muscular (PFM) dysfunction. Symptoms include straining to void, urgency, frequency, hesitation, incontinence and/or retention, and subpubic pain. Finding neither bladder nor urological abnormalities, urologists may consider these women emotionally unstable without organic cause for their symptoms. However, their distress may be a consequence rather than a cause of their voiding problems. Sixteen female urological patients were matched with 16 asymptomatic controls to investigate PFM functioning, psychological status, and symptomatology. Results showed heterogeneity of symptomatology and little elevation of depression or anxiety when comparing patients with controls. Hypotheses of muscular abnormality were confirmed. Patients evidenced poor control over tensing and relaxing PFM, elevations of PFM activity under various conditions, and chronic pain as a prominent symptom. Treatment approaches specifically designed to address PFM dysfunction are discussed.

KEY WORDS: female urethral syndrome; biofeedback; learning and urological disorders; detrusor-sphincter dyssynergia.

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INTRODUCTION

With increasing sophistication in urodynamic techniques (Abrams et al., 1983; Blavais, 1984), urologists can now differentiate a subgroup of patients with a set of urological symptoms but no evident bladder or neurological abnormalities. These patients report symptoms such as frequency, urgency, straining to void, hesitation, incontinence and/or retention, and subpubic pain. Until recently, women with such symptoms have been grouped together as having "urethral syndromes" (Schmidt, 1985).

Although often receiving the diagnosis of urethral syndrome, it is likely that these patients form a heterogeneous group with respect to etiology and maintaining factors. One proposed subgroup includes those who suffer from a dysfunction of the pelvic floor musculature (PFM). Such a dysfunction has variously been called detrusor-sphincter dyssynergia (DSD) (Norgaard and Djurhuus, 1982), functional dyssynergia (Libo et al., 1983), and pseudodysynergia (Evans, 1971).

Micturition is a complicated act, involving the coordinated activity of many centers and the integration of bladder, urethra, and sphincter mechanisms (see Fig. 1). It is, therefore, understandable if such a complex system should breakdown and lead to various voiding dysfunctions.

During normal micturition, the detrusor tenses and the PFM relaxes, allowing emptying of the bladder. One dysfunction that may develop would be for the detrusor muscle and the PFM to begin to act in a dyssynergic, or incoordinated, manner — as the detrusor tenses to empty the bladder, the PFM also tenses, leading to weak/erratic flow, straining to void, and