Evaluation and Management of Disorders of the Female Urethra

Humphrey Atiemo, MD, and Firouz Daneshgari, MD

SUMMARY

Historically, urethral syndrome has been defined as symptoms suggestive of a lower urinary tract infection in the absence of significant bacteruria with a conventional pathogen. In the modern era, components of this term have been separated out into new disease entities such as overactive bladder, functional bladder outlet obstruction, and pelvic pain syndrome including dyspareunia and vulvodynia. Proper treatment is best initiated by correct usage of the terminology that describes the patient’s symptoms and evaluation, followed by symptom-focused treatment.

KEY WORDS: Urethra; urethral syndrome; lower urinary tract; overactive bladder; functional bladder outlet obstruction; pelvic pain syndrome; dyspareunia; vulvodynia.

CONTENTS

INTRODUCTION
EPIDEMIOLOGY
ETIOLOGY
DIAGNOSIS
CONCLUSION
REFERENCES

INTRODUCTION

The term “urethral syndrome” encompasses a myriad of female pelvic health issues that span the disciplines of Psychology, Immunology, Infectious Disease, and Urology. An inordinate number of descriptions have been used to describe this disease, such as
female aseptic dysuria, female prostatitis, and abacterial cystitis. This lack of proper nomenclature has made it difficult for clinicians to speak scientifically on the subject matter. Subsequently, evidence-based material on this subject matter is also lacking. In the modern era, however, it is not uncommon for urologist, gynecologist, and pelvic health specialist to evaluate patients with a history of this diagnosis. Although the term “urethral syndrome” appears to be anachronistic, it remains the diagnosis of choice for many clinicians because of a lack of objective finding in this patient population. The aim of this manuscript therefore is to educate the clinician on the current body of knowledge regarding this syndrome in order to assist in the proper evaluation and treatment of these patients.

Urethral syndrome is defined as symptoms suggestive of a lower urinary tract infection but in the absence of significant bacteruria with a conventional pathogen (1). Symptoms may include burning with urination, frequency and urgency, pain or discomfort localized to the urinary meatus. Non-infective causes that may be involved in this syndrome include inflammatory disorders, allergic, traumatic, and anatomical disorder such as diverticula and post surgical scarring. The constellation of the aforementioned symptoms often lead patients to seek treatment for presumed urinary tract infection, although cultures typically do not show any conventional bacterial growth and pyuria (more than 5 WBC per HPF) is normally absent. Patients with complaints of urethral syndrome may also have dyspareunia and worsening of symptoms related to sexual intercourse.

Although symptoms of frequency, urgency, and pelvic pain have been used to describe the patient with urethral syndrome (2), there appears to be much overlap with the overactive bladder (OAB) and interstitial cystitis patient. Discernment between these two groups has made the diagnosis of urethral syndrome very difficult. The clinical burden to make the proper diagnosis will therefore always be paramount prior to implementation of the therapy.

**EPIDEMIOLOGY**

True epidemiological studies on the incidence and prevalence of urethral syndrome are lacking. Medline search does however reveal small single institution studies in the literature. In a Turkish study, urethral syndrome defined as urinary irritation with dysuria, urgency, and pollakuia was identified in 35 women from cohort on 235 premenopausal women from a gynecological clinic. Univariate and multivariate analyses identified grandmultiparity and delivery without episiotomy as risk factors, for urethral syndrome (3). The lack of other risk factor identification is most likely because of the lack of a consistant identifiable population.

**ETIOLOGY**

Disorders of the urethra are often multifactorial in nature. Psychological, neurological, infectious, and inflammatory disorders may all be identified as root causes of urethral syndrome resulting in voiding dysfunction. Urethritis has been associated in patients with rheumatological syndromes such as ankylosing spondylitis. Fifteen of 32 patients with urethral syndrome were found to be HLA-B27 positive in one study, indicating that at least some symptoms of urethral syndrome may be autoimmune in nature (4). Infectious etiologies may include an exposure to Chlamydia. One