Evaluation of Overactive Bladder in the Primary Care Setting

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DEFINITION OF OAB AND SEMANTIC ARGUMENT

Overactive bladder (OAB) syndrome is defined by the International Continence Society (ICS) as urgency with or without urge incontinence (UUI), usually with frequency and nocturia in the absence of local pathological or endocrine factors [1]. This syndrome is a symptom-based condition. However, this definition is still controversial for primary caregivers and specialists. Blaivas proposes that OAB should be considered a symptom complex, not a syndrome [2]. By his definition, a symptom complex has a differential diagnosis that should be explored in a timely fashion either before or after empiric therapy has failed. A syndrome implies that treatment should be empiric and that further diagnostic evaluation is not necessary. As a non-native English speaking doctor, there are many cultural and language barriers to the understanding of the word "urge" and "urgency" in English. It seems that this could be a matter of semantics. Actually, within the normal population, urgency is different from the first sensation of filling, the normal desire to void, and the strong desire to void in the filling phase. Even Dr. Blaivas, an English speaking doctor, still has arguments regarding the definition of OAB according to the ICS. It seems as if there is difficulty finding common ground with his definition and that of the ICS, since conditions causing and/or associated with OAB are diverse such as neurogenic, non-neurogenic or idiopathic [2,3]. Therefore, the criterion for the diagnosis of OAB depends on the doctor's opinion or on the perceptions of the patients themselves. There does not seem to be a consensus yet, even though the ICS has set the pre-condition "if there is no proven infection or other pathology". Therefore as clinicians, we need to help patients solve their problems if they complain of bothersome lower urinary tract symptoms. A structured protocol for evaluation or a concise algorithm needs to be set up and followed before we start to treat patients with OAB.

WHY PATIENTS WITH OAB DO NOT SEEK TREATMENT?

In the primary care setting, caregivers should not overlook patients' perceptions of lower urinary tract symptoms (LUTS) or neglect their questions about emotional distress connected to urinary problems. Previous studies have revealed that 53% to 67% of women with OAB and/or UUI were bothered by their condition, and only 50% of them initiated a conversation with their healthcare provider [4]. A similar situation was also found in a population-based prevalence study. Only 60% of those with OAB had consulted a physician and only 27% were currently receiving treatment [5]. Our previous survey revealed that only 27.1% of women with urinary incontinence and related symptoms had reported seeking medical services to solve these problems [6]. Previous treatment failure can also play a role in a patient's decision not to seek further treatment [7].

Received: June 8, 2009 Accepted: August 25, 2009
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In the past, literature has revealed that misconceptions, embarrassment, and lack of knowledge keep symptom sufferers from initiating consultation or seeking treatment from a care-provider and keep healthcare providers from asking important questions about bladder health [8]. Health care-providers (particularly male providers) lack interest, empathy or knowledge regarding lower urinary tract symptoms [9]. Most patients feel embarrassment resulting in a lack of disclosure to family members, friends or providers [10]. Some sufferers believe that urge incontinence is a normal consequence of aging. Some physicians fail to respond when the patient mentions urinary incontinence and others give incorrect advice [11]. Even worse, there are some misunderstandings which may significantly affect the patient and healthcare provider interaction with regard to the meaning of urinary incontinence, environment, culture, or gender [12]. Previous treatment failure can also play a role in the patients' decision not to seek further treatment [7].

BENEFITS OF THE ICS DEFINITION OF OAB

The new definition is a symptom-based condition. This definition provides a foundation for patient-physician communication and also allows the non-specialist to diagnose as well as manage OAB based on an assessment of specific symptoms. Recent research has focused on this common disorder, not only in terms of the physical limitations for patients, but also the association of this disorder with social, psychological, and sexual problems as well as in terms of health-related quality of life [13].

ASSESSMENT OF OAB IN THE PRIMARY CARE SETTING

Diagnoses of OAB must be based and focused on subjective complaints by the patients themselves. An initial evaluation should include a detailed history, an assessment of symptoms and health-related quality of life, a physical examination, a voiding diary, and urinalysis [14]. Only in a few cases, where patients are refractory to initial conservative treatment and have significant urinary retention or hematuria, are they referred to a specialist for more invasive testing such as cystoscopy, urodynamic testing, or video-urodynamics [8].

It is imperative that the patient is asked about her urinary symptoms, but often primary caregivers neglect to question their patients on this issue. A detailed history includes onset of symptoms, duration, character, associated symptoms and signs, as well as desire for treatment. Symptoms of OAB and their negative effects on the quality of life can be derived from history taking and/or validated

questionnaires. Structured questions should contain the following items: mean number of micturition, urgency episodes, urge incontinence episodes and all incontinence episodes during a 24 hour period; mean number of nocturia during sleep time; volume voided per micturition; duration of OAB symptoms; and time of micturtion, urgency and incontinence episodes [8]. In addition, in females, medical and drug history, surgical history related to the genitourinary tract, as well as gynecological and obstetric history (including the mode and number of deliveries, symptoms during intercourse) are very important.

A physical examination for the management of OAB should exclude pelvic pathological conditions. The physical examination should focus on abdominal and pelvic examinations to look for vaginal conditions (atrophic or senile changes), a palpable pelvic mass in the bladder (post-voiding), and pelvic organ prolapse. Also urine leakage during coughing or abdominal straining should be checked. A cough stress test can be done to exclude stress incontinence. A pelvic examination or rectal examination is also required to assess anal tone, neurological deficit of the perineum, and pelvic floor strength [15].

The patient should be asked to complete a voiding diary (for 3 days, 7 days or even more). Voiding diaries provide more information about the pattern of micturition, voiding efficiency and episodes of events (i.e. leakage, incontinence, urgency...). A voiding diary can range from 1 to 14 days, but at least 3 days are needed in order to avoid a compromise of the diagnostic value of a voiding diary [16].

In order to diagnose of OAB according to the definition recommended by the ICS: "urgency with or without urge incontinence, usually with frequency and nocturia, in the absence of local pathological or endocrine factors", urinalysis and a urine culture are required to exclude local pathological factors such as infection, hematuria, stones or tumors. Different results may occur from the urinalysis and urine culture of a continuous or mid-urinary stream with a routine or special culture. Khasriya et al revealed that a routine mid-stream urinary culture in patients with symptoms of OAB may miss many genuine infections [17]. The cut-off points for diagnosing an infection are diverse from 10^5 colony forming units (cfu) ml^{-1} to 10^2 cfu ml^{-1}. They found that 12% (46/378) of the samples had positive results in routine cultures whereas 30% (114/378) of the samples had positive results in special cultures. Twenty-one percent (71/378) of the positive results in the special cultures did not grow bacteria with the established laboratory method (routine culture).

Primary care-givers can begin treating OAB patients with behavioral treatment or oral pharmacotherapy [15].

WHEN DOES A PATIENT NEED TO BE REFERRED TO A SPECIALIST?

Only in a few cases, where patients are refractory to initial conservative treatment with significant urinary retention, recurrent infection or hematuria, will patients be referred to a specialist for more invasive testing such as cystoscopy, urodynamic testing, electromyogram, video-urodynamics or a multidisciplinary approach. The following conditions require urodynamic testing: urinary complaints with complex features such as incomplete bladder emptying, prior anti-incontinence surgery, and symptomatic pelvic organ prolapse or associated neurological conditions. Also, patients whose symptoms do not correlate with objective findings or fail to improve after initial treatment need to be referred to a specialist for further investigation.

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