



## ORIGINAL ARTICLE

# Urodynamic study in women with pure stress urinary incontinence<sup>☆</sup>



J.P. Valdevenito<sup>a,b,\*</sup>, F. Águila<sup>a</sup>, M. Naser<sup>b</sup>, V. Manríquez<sup>b</sup>, C. Wenzel<sup>b</sup>, J.P. Díaz<sup>a</sup>

<sup>a</sup> Unidad de Urodinamia, Servicio de Urología, Hospital Clínico Universidad de Chile, Santiago, Chile

<sup>b</sup> Unidad de Piso Pélvico Femenino, Servicio de Ginecología y Obstetricia, Hospital Clínico Universidad de Chile, Santiago, Chile

Received 20 June 2014; accepted 15 July 2014

Available online 3 February 2015

### KEYWORDS

Stress urinary incontinence;  
Diagnostic test;  
Urodynamics;  
Reference values

### Abstract

**Objective:** To describe the results of urodynamic study in women with pure stress urinary incontinence symptoms, including the characteristics of the overactive detrusor. No other clinical assessments were taken into account.

**Materials and methods:** A retrospective study in women with urinary incontinence consecutively evaluated by urodynamic study. From a total of 710 women, only 108 (15%) with pure stress urinary incontinence symptoms were selected. Women with prior urinary incontinence surgery, pelvic organ prolapse (stage  $\geq$  III), pelvic radiotherapy, using medication active on the lower urinary tract and neurological diseases were excluded. Infusion rate was 70 ml/min. Detrusor overactivity was induced only by cough. A standardized cough stress test with progressive cough intensity was carried out.

**Results:** Reference urodynamic values for stress incontinent women are described. Urodynamic stress incontinence was observed in 79 women (73.1%), detrusor overactivity in 4 (3.7%) and mixed urodynamic diagnosis in 15 (13.8%). Test was inconclusive in 10 patients (9.2%). Two women had detrusor overactivity incontinence (1.9%). One patient had detrusor overactivity induced by cough without urodynamic stress incontinence (0.9%). There was an association between detrusor overactivity and nocturia  $\geq 2$  ( $p=0.002$ ; odds ratio: 3.74; 95% confidence interval: 1.22–11.39). One woman had a bladder outlet obstruction (0.9%).

**Conclusions:** In women with pure stress urinary incontinence, without knowing the outcome of other clinical assessments, urodynamic study can provide useful information to define the proper therapy.

© 2014 AEU. Published by Elsevier España, S.L.U. All rights reserved.

<sup>☆</sup> Please cite this article as: Valdevenito JP, Águila F, Naser M, Manríquez V, Wenzel C, Díaz JP. Estudio urodinámico en mujeres con síntomas de incontinencia urinaria de esfuerzo pura. Actas Urol Esp. 2015;39:98–103.

\* Corresponding author.

E-mail addresses: [jpvvaldevenito@yahoo.com](mailto:jpvvaldevenito@yahoo.com), [jpvvaldevenito@hcuch.cl](mailto:jpvvaldevenito@hcuch.cl) (J.P. Valdevenito).

**PALABRAS CLAVE**

Incontinencia urinaria de esfuerzo;  
Prueba diagnóstica;  
Urodinamia;  
Valores de referencia

**Estudio urodinámico en mujeres con síntomas de incontinencia urinaria de esfuerzo pura****Resumen**

**Objetivo:** Describir los resultados del estudio urodinámico en mujeres con síntomas de incontinencia urinaria de esfuerzo pura, incluyendo las características del detrusor hiperactivo, sin conocer otras evaluaciones clínicas.

**Material y métodos:** Estudio retrospectivo de mujeres con incontinencia urinaria evaluadas con estudio urodinámico de forma consecutiva. De 710 mujeres evaluadas, se seleccionaron 108 con síntomas de incontinencia urinaria de esfuerzo pura (15%), excluyendo aquellas con cirugía de incontinencia urinaria previa, prolapso de órganos pélvicos en estadio  $\geq$  III, radioterapia pélvica, uso de fármacos uroselectivos y enfermedades neurológicas. La velocidad de infusión fue de 70 ml/min. La tos fue el único método utilizado para provocar la hiperactividad del detrusor. La prueba de esfuerzo se hizo estandarizada, con uso de tos de intensidad progresiva.

**Resultados:** Se describen valores de referencia de las diferentes etapas del estudio urodinámico. Se demostró incontinencia urinaria de esfuerzo urodinámica en 79 mujeres (73,1%), detrusor hiperactivo en 4 (3,7%) y diagnóstico urodinámico mixto en 15 (13,8%). En 10 pacientes el examen no fue concluyente (9,2%). Dos mujeres presentaron incontinencia urinaria por detrusor hiperactivo (1,9%). Una paciente presentó detrusor hiperactivo inducido por tos sin incontinencia urinaria de esfuerzo urodinámica (0,9%). Hubo asociación entre detrusor hiperactivo y nicturia  $\geq 2$  ( $p=0,002$ ; odds ratio: 3,74; intervalo de confianza del 95%: 1,22–11,39). Una mujer presentó obstrucción de la salida de la vejiga (0,9%).

**Conclusiones:** En mujeres con incontinencia urinaria de esfuerzo pura, sin conocer el resultado de otras evaluaciones clínicas, el estudio urodinámico puede proporcionar información útil para definir el tratamiento.

© 2014 AEU. Publicado por Elsevier España, S.L.U. Todos los derechos reservados.

**Introduction**

While some professional organizations advise against the routine use of urodynamic studies in the small group of women with a diagnosis of pure stress urinary incontinence (SUI) based on a medical history and a detailed physical examination,<sup>1</sup> others recommend their use before invasive treatments, when the outcome of the examination may change patient management, as well as in cases of complicated urinary incontinence or after treatment failure.<sup>2,3</sup>

Most recently, a randomized multicenter study on women with uncomplicated, demonstrable SUI showed non-inferiority in 1-year postoperative results, when only a clinical evaluation was made versus when a urodynamic study was additionally used in pre-surgical assessment.<sup>4</sup> Whereas the importance of this study has been recognized, it has also been criticized for including patients with mixed urinary incontinence, for the disproportion in the different branches studied, for using multiple surgical techniques and for only showing 12-month results. In view of the foregoing, the discussion on the use of urodynamics before SUI surgery is apparently not finalized.<sup>5</sup>

The International Continence Society (ICS) defines urodynamic SUI (urod-SUI) as a phenomenon occurring during filling cystometry, characterized by the involuntary leakage of urine with increased intra-abdominal pressure in the absence of a detrusor contraction.<sup>6</sup> This definition entails the risk of clinically diagnosing SUI in patients who

only experience urine leakage secondary to a detrusor contraction caused by increased abdominal pressure (stress or exercise, sneezing or coughing).

The aim of this analysis was to describe the outcomes of the different stages of urodynamic testing in women with clinical signs of pure SUI, including the presence of overactive detrusor (OAD), with a description of the latter as being caused by increased abdominal pressure, without knowing the result of other clinical assessments.

**Materials and methods**

This is a retrospective study on women with urinary incontinence consecutively evaluated using urodynamic studies between March 2009 and February 2013, at a referral university center, following the definitions and recommendations of the ICS.<sup>6,7</sup>

All patients were questioned by a single urodynamics urologist, with the following aspects being recorded: (1) SUI symptoms; (2) voiding urgency and urge urinary incontinence symptoms, (3) the use of some form of protection for urinary incontinence; (4) voiding frequency (in waking and sleeping hours); (5) symptoms of the lower urinary tract, including emptying ones (decreased urinary stream, straining when urinating and intermittent voiding); (6) a medical, obstetric and surgical pelvic history, and (7) drugs used 2 weeks before the examination. We decided to disregard the result of other clinical evaluations on grounds of having incomplete information, since a significant proportion

Download English Version:

<https://daneshyari.com/en/article/3845235>

Download Persian Version:

<https://daneshyari.com/article/3845235>

[Daneshyari.com](https://daneshyari.com)