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Coital Incontinence in Women With Urinary Incontinence: An International Study

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ABSTRACT

Introduction: Coital urinary incontinence (CUI) is not much explored during clinical history, and this could lead to an underestimation of the problem.

Aim: To evaluate the prevalence and clinical risk factors of CUI in women with urinary incontinence (UI), and to measure the impact of CUI on women's sexuality and quality of life.

Methods: This was a multicenter international study, conducted in Italy, Greece, the United States, and Egypt. Inclusion criteria were: sexually active women with UI and in a stable relationship for at least 6 months. Exclusion criteria were: age <18 years and unstable relationship. The UI was classified as stress UI (SUI), urgency UI (UUI), and mixed UI (MUI). Women completed a questionnaire on demographics and medical history, in particular on UI and possible CUI and the timing of its occurrence, and the impact of CUI on quality and frequency of their sexual life.

Main Outcome Measures: To evaluate the CUI and its impact on sexual life we used the open questions on CUI as well as the International Consultation on Incontinence questionnaire and Patient Perception of Bladder Condition questionnaire.

Results: In this study 1,041 women (age 52.4 ± 10.7 years) were included. In all, 53.8% of women had CUI: 8% at penetration, 35% during intercourse, 9% at orgasm, and 48% during a combination of these. Women with CUI at penetration had a higher prevalence of SUI, women with CUI during intercourse had higher prevalence of MUI with predominant SUI, and women with CUI at orgasm had higher prevalence of UUI and MUI with predominant UUI component. Previous hysterectomy was a risk factor for CUI during any phase, while cesarean delivery was a protective factor. Previous failed anti-UI surgery was a risk factor for CUI during penetration and intercourse, and body mass index >25 kg/m^2 was a risk factor for CUI at intercourse. According to International Consultation on Incontinence questionnaire scores, increased severity of UI positively correlated with CUI, and had a negative impact on the quality and frequency of sexual activity.

Clinical Implications: This study should encourage physicians to evaluate the CUI; in fact, it is an underestimated clinical problem, but with a negative impact on quality of life.

Strengths & Limitations: The strength of this study is the large number of women enrolled, while the limitation is its observational design.

Conclusion: CUI is a symptom that can affect sexual life and should be investigated during counseling in all patients who are referred to urogynecological centers. **Illiano E, Mahfouz W, Giannitsas K, et al. Coital**

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INTRODUCTION

Coital urinary incontinence (CUI) is the symptom of involuntary leakage of urine during coitus that occurs before, during, or after vaginal intercourse.[1] Affected women may experience urine loss at penetration (penetration urinary incontinence [UI]) at orgasm (orgasmic UI) or throughout penetrative sex. Despite its presumably low overall prevalence in the general population, it is reported by 10–66% of women with UI, depending on the definition and methods of assessment used.[2]

The pathophysiology of urine leakage during sexual activity is not completely elucidated. Recent studies underline the importance of urethral insufficiency,[3] contradicting beliefs that CUI is stress UI (SUI) if it occurs during penetration but related to detrusor overactivity when it occurs at orgasm.[4,5] Several studies have demonstrated the impairment of sexual life by the presence of voiding symptoms,[2] but the impact of UI during coitus, in particular, is difficult to assess given that it seldom presents as an isolated symptom.

The primary aim of the present study was to evaluate the prevalence of CUI in a large international series of sexually active women with UI, to further support its clinical relevance. The secondary outcomes included the evaluation of demographic and clinical risk factors for CUI as well as its impact on women's sexuality and quality of sexual life, in terms of frequency and quality of sexual intercourse.

METHODS

This was an epidemiological international, multicenter study, conducted in Italy, Greece, the United States, and Egypt. This study was registered on ClinicalTrials.gov (NCT02306655) and was accepted by the local ethics committee (Comitati Etico Aziende Sanitarie 2372/14). The patients signed informed consent documents.

All consecutive women referred to participating tertiary urogynecological centers between October 2014 and June 2016, for UI, were recruited. Those who stated that they were sexually active and in a stable relationship for at least 6 months and also reported UI, regardless of severity and type, were eligible for inclusion.

Exclusion criteria were patients aged <18 years and those without a stable relationship or with no sexual activity (defined as sexual intercourse at least every 2 weeks).

All the patients recruited in each center underwent medical history and clinical urogynecological examination, using Pelvic Organ Prolapse (POP) Quantification system for classification. They were given a questionnaire that, after 21 questions on demographics and medical history, inquired, using closed questions, on the presence of SUI, urgency UI (UUI), POP, as well as a history of surgical procedures for UI and prolapse. Women reporting both SUI and UUI, in other words women with mixed UI (MUI), were instructed to state which was the predominant type.

As far as CUI was concerned, patients were asked: "Do you leak urine during sexual intercourse?" If the answer was "yes," they were further asked about the timing of its occurrence, whether at penetration, during intercourse, or at orgasm with more than 1 answers allowed.

Demographics and short medical history information included age, marital status, height and weight in order to calculate body mass index (BMI), smoking and menopausal status (pre- or postmenopausal), parity and mode of baby delivery, use of hormonal therapy, previous hysterectomy, failed anti-UI surgery or POP surgery, and current diagnosis of POP.

The severity of UI and its impact on quality of life were assessed using standardized questionnaires: the International Consultation on Incontinence questionnaire (ICIQ-UI) Short Form[6] and Patient Perception of Bladder Condition questionnaire.[7]

Patients were finally asked how much UI influences the overall quality and frequency of their sexual activity using two 4-point Likert questions: not at all, a little, much, and very much.

The Mann-Whitney test was used to compare ordinal and nonnormally distributed continuous variables. Categorical data were analyzed by the χ^2 test with Yates correction or Fisher exact test. Multivariate logistic regression models were fit for the prediction of risk factors, incorporating as explanatory variables all those that showed a P value <.05 in bivariate analysis. Odds ratios (ORs) with 95% CIs were also calculated. Statistical analyses were performed using software (SPSS, Version 23.0; IBM Corp, Armonk, NY, USA). A 2-sided P value <.05 was considered significant.

RESULTS

In all, 1,041 sexually active women with UI were included in this study. Their mean age was 52.4 ± 10.7 years, median (range) BMI was 26.03 (15.6–42), 54.5% were postmenopausal, and 36.5% had POP (stage <II). As far as UI is concerned, 32.9% (342 patients) had symptoms of SUI, 13.6% (142 patients) had UUI, and 53.5% (557 patients) had MUI.

Overall 560 women, 53.8% of the total population, had CUI. Demographic and clinical characteristics of the entire cohort of patients with and without CUI are summarized in Table 1.