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Title

PD44-03 THE IMPACT OF CYCLING ON WOMEN'S SEXUAL AND URINARY FUNCTIONS

Permalink

<https://escholarship.org/uc/item/9rb4t6v0>

Journal

Investigative Urology, 197(4)

ISSN

0021-0005

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Publication Date

2017-04-01

DOI

10.1016/j.juro.2017.02.2060

Peer reviewed

Sexual Function/Dysfunction: Female

Podium 44

Sunday, May 14, 2017

3:30 PM-5:30 PM

PD44-01

CHARACTERISTICS AND OUTCOMES OF WOMEN PRESENTING TO A MULTIDISCIPLINARY WOMEN'S UROLOGY CLINIC

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INTRODUCTION AND OBJECTIVES: We report on women with a variety of complex, often pain-based pelvic floor conditions managed in a comprehensive multidisciplinary Women's Urology Center (WUC) that offers urological, gynecological, colorectal, psychological, pelvic floor physical therapy and integrative medicine treatments.

METHODS: Women presenting 2011-2015 were reviewed. Descriptive statistics were performed. A mailed survey to patients presenting in 2013-2014 assessed current status and satisfaction with treatment. Baseline and follow up Pelvic Floor Distress Inventory (PFDI-20) overall and subscale scores (Pelvic Organ Prolapse Distress Inventory (POPDI-6), Colorectal and Anal Distress Inventory (CRADI-8) and Urinary Distress Inventory (UDI-6)) were analyzed.

RESULTS: 693 new patients were seen in the specified time period. Mean age was 51 (range 17-91). Most common chief complaints were pelvic pain (219/687, 32%), urine incontinence (110/687, 16%), and overactive bladder (75/687, 11%). WUC treats women with complicated pelvic floor issues, provides 30-90 minute appointments including multidisciplinary care, yet even with this careful, tailored personal management only 89/567 (16%) patients returned the follow up survey. 85% (71/84) of responders were satisfied with the care and 35% (31/88) were still managed at the WUC. Of those who did not return, 44% (19/43) were improved / satisfied and did not need to return, 49% (21/43) had logistical reasons (live out of area, insurance issues, or inconvenient appointment times) and only 7% (3/43) were unhappy with their care. Compared to non-responders, survey respondents had similar age and chief complaint, were more educated ($p=0.02$), and were less likely to smoke ($p<0.01$) but more likely to have diabetes ($p=0.04$). Rates of anxiety and depression were similar between groups ($p=0.25$, $p=0.67$). Most common treatments included pelvic floor physical therapy (55%), pelvic floor trigger point injections (15%), medications (24%), and coping strategies (58%). Mean PFDI-20 scores improved (82 to 64), all subscale scores improved (POPDI-6 from 24 to 17, CRADI-8 from 19 to 17 UDI-6 from 37 to 29) however, only the CRADI-8 met the minimally important difference.

CONCLUSIONS: Complex pelvic floor issues are difficult. Many patients were outside our catchment area, had seen multiple providers and were refractory to standard therapies. Although survey response was low, the majority of patients were pleased with their care. A multidisciplinary clinic providing individualized, comprehensive care is effective for pelvic floor symptoms.

Source of Funding: None

PD44-02

SEXUAL FUNCTION OUTCOMES IN PATIENTS AND PATIENTS' SPOUSES AFTER MIDURETHRAL SLING PROCEDURE FOR STRESS URINARY INCONTINENCE: DATA FROM A MINIMUM OF 3 YEARS OF FOLLOW-UP

Phil Hyun Song, Jae Young Choi, Young Hwii Ko, Ki Hak Moon, Hee Chang Jung, Daegu, Korea, Republic of*

WITHDRAWN

PD44-03

THE IMPACT OF CYCLING ON WOMEN'S SEXUAL AND URINARY FUNCTIONS

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INTRODUCTION AND OBJECTIVES: Cycling health benefits are well known; however, concerns have been raised about its effect on the genitourinary tract, due to prolonged perineal pressure. We conducted an international survey of female athletes to determine the impact of cycling on sexual and urinary function.

METHODS: Cyclists were recruited to complete a survey through Facebook advertisements and outreach to English speaking sporting clubs across the world. Swimmers and runners were recruited as controls. Participants were queried on their physical activities, sexual function with the Female Sexual Function Inventory (FSFI), urinary symptoms with the International Prostate Symptom Score (I-PSS), history of urinary tract infections (UTI), and perineal numbness. High intensity cycling was defined as cycling for more than 2 years, more than 3 times/week, and with a daily average cycling of more than 25 miles.

RESULTS: Of 4,879 respondents, 2,691 (55%) completed the survey. Of these, we compared cyclists who do not regularly swim or run (658, 39%), and swimmers or runners who do not regularly cycle (1,013, 61%). After adjusting for age, body mass index, history of hypertension, diabetes, ischemic heart disease and/or tobacco use, there were no significant differences between cyclists and non-cyclists in the mean storage and voiding subscores of I-PSS nor the total I-PSS score (6.9 vs 7.4, $p=0.12$). Cyclists had significantly higher mean total FSFI scores (22.7 vs 21.3, $p<0.01$) as well as higher mean scores in each FSFI domain, except for satisfaction and pain (Table 1). After adjusting for age, cyclists had higher odds of having a self-reported UTI Odds Ratio (OR) 1.4 (95% 1.1-1.7), and perineal numbness OR 7 (5.3-9.3). High intensity cyclists had no significant differences in the mean

I-PSS score (6.8 vs 6.9, $p=0.69$), nor mean FSFI score (22.9 vs 23.2, $p=0.68$) compared to lower intensity cyclists. High intensity cyclists were more likely to develop perineal numbness, OR 1.6 (95% CI 1.3-2), and saddle sores, OR 2.2 (95% CI 1.8-2.8). Bike seat type had no significant effect in any of the above mentioned results.

CONCLUSIONS: Contrary to previous literature, we demonstrate that cycling has no appreciable effect on female sexual or urinary function. However, our study suggests that cycling may increase the risk of UTI and perineal numbness.

Table 1: Differences in sexual and urinary functions for Cyclists and Non-cyclists women included in our study

	Cyclists 658 (39%)	Non-cyclists 1013 (61%)	p-value
Mean Score in FSFI Domains*			
Desire	3.8	3.6	0.02
Arousal	4.1	3.7	<0.01
Lubrication	4.3	3.9	0.01
Orgasm	3.9	3.6	0.02
Satisfaction	4.4	4.3	0.13
Pain	1.7	1.6	0.09
Mean FSFI Total Score*	22.7	21.3	<0.01
Mean I-PSS Filling Symptoms Subscore*	4.2	4.7	0.17
Mean I-PSS Voiding Symptoms Subscore*	2.4	2.7	0.15
Mean Total I-PSS Score*	6.9	7.4	0.12
Adjusted OR for History of UTI (95% CI)°	1.4 (1.1-1.7)	Referent	<0.01
Adjusted OR for Perineal Numbness (95% CI)°	7 (5.3-9.3)	Referent	<0.01

OR odds ratio, CI confidence interval, SD standard deviation, FSFI Female Sexual Function Inventory (higher score indicates better symptoms), I-PSS International Prostate Symptom Score (higher score indicates worse symptoms), UTI urinary tract infections, BMI body mass index, IHD Ischemic heart disease

* Adjusted for age, BMI, hypertension, diabetes, IHD, and tobacco use

± Questions 2, 4, and 7 of the IPSS (subscore 0-15)

+ Questions 1, 3, 5 and 6 of the IPSS (subscore 0-20)

° Adjusted for age

Source of Funding: none

PD44-04

SUCCESSFUL TREATMENT OF INTERSTITIAL CYSTITIS/BLADDER PAIN SYNDROME (IC/PBS) IN WOMEN WITH PROVOKED VESTIBULODYNIA (PVD)

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INTRODUCTION AND OBJECTIVES: There is wide clinical overlap between PVD and IC/BPS as both conditions may include dyspareunia, chronic pelvic pain, and lower urinary tract symptoms. Unlike with IC/BPS evaluation, PVD patients are distinguished by having confined vestibular pain and positive cotton swab (Q-tip) testing, often with erythema and tenderness at 1:00 and 11:00 peri-urethral Skene's vestibular glands. Successful treatment of PVD has been anecdotally observed to resolve IC/BPS patient bladder symptoms. In addition, treatment of PVD often leads to resolution of gland pathology. The goal of this study was to advance our knowledge concerning the association of successful treatment for PVD and subsequent bladder symptom improvement.

METHODS: An IRB-approved anonymous multi-question internet-based survey was sent to 233 consecutive women who were diagnosed and successfully treated for PVD by two sexual medicine physicians.

RESULTS: 73 (31%) women responded: 55% were 21 - 35 years old. Most common symptoms were dyspareunia (93%), feelings of burning, raw or cutting in the pelvis (75%), pain with tampons (52%), urinary frequency (38%), urgency (30%), bladder pain (26%), and relief of bladder pain with voiding (10%). Prior to being diagnosed with PVD, 71% were seen by 3-10 physicians; 89% were managed by a urologist. Of the 37% diagnosed with IC/BPS, 67% reported <20% improvement in bladder symptoms with various IC/BPS treatments: 74% followed behavioral modifications, 70% used pentosan

polysulfate sodium or amitriptyline, and 59% underwent bladder instillations or hydrodistention. 52% of patients were diagnosed with hormonally associated PVD treated with cessation of hormonal contraceptives (if currently using), and topical estradiol/testosterone creams. Other PVD pathophysiologies included neuro-proliferative PVD (30%) treated with vulvar vestibulectomy, and pelvic floor hypertonicity (74%) treated in part with physical therapy. Successful treatments for PVD improved bladder symptoms by $\geq 80\%$ in 56% of patients and by $\geq 40\%$ in 93% of patients. 78% of patients felt misdiagnosed with IC/BPS.

CONCLUSIONS: Women with IC/BPS may have underlying PVD as pathophysiology and not an intrinsic bladder pathology. Urologic training should include vestibular examination and cotton swab testing, along with education concerning PVD management options (hormone treatment, pelvic floor physical therapy, and vestibulectomy) to best manage women with IC/PBS symptoms.

Source of Funding: None

PD44-05

WRITING IN THE MARGINS OF SEXUAL FUNCTION QUESTIONNAIRES: A QUALITATIVE ANALYSIS FROM WOMEN WITH PELVIC FLOOR DISORDERS

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INTRODUCTION AND OBJECTIVES: Pelvic floor disorders (PFDs) are associated with sexual dysfunction related to impaired arousal, absent or diminished orgasm, and pain, as well as lowered rates of sexual activity. As a result, it is a challenge to assess sexual function in women who are not sexually active. Many decline to answer questions, or may write comments in the margins of forced-choice surveys. "Marginalia" can offer rich, novel sources of data that validated surveys fail to capture. We sought to more comprehensively capture women's experiences by analyzing how women with PFDs respond to sexual function questionnaires.

METHODS: Women with PFDs completed validated written sexual function questionnaires [Study of Sexual Attitudes and Behaviors survey (SSABS), Female Sexual Function Index (FSFI), and Sexual Function for Women with POP, Urinary Incontinence and/or Fecal Incontinence (PISQ-IR)]. Marginalia, or the additions, eliminations, and changes subjects made (by hand) to survey items, were collected. Data were coded and analyzed using grounded theory methodology (Charmaz, 2006).

RESULTS: Ninety-four women completed surveys, the majority of whom experienced FSD (mean FSFI scores were 26.4 ± 5.8 for women <60 and 18.1 ± 12.4 for women 60+; 26.55 or less indicates FSD). Fifty-one (54%) subjects left marginalia, grouped into 4 types: narrative ($n=20$), clarification ($n=65$), elimination ($n=86$), and confusion ($n=6$). Narrative comments were unsolicited feedback or personal details. Clarifications were explanations or changes to survey items. Eliminations were "not applicable" notations or deletions. Confusion marginalia included question marks. Qualitative analysis revealed several themes (See Table 1). Elimination marginalia were commonly made on survey items addressing sexual activity or satisfaction. Fifty-nine (62.8%) subjects left one or more questions blank.

CONCLUSIONS: Analysis of marginalia from sexual function questionnaires amongst women with PFDs revealed critical, previously undocumented information about patients' histories, concerns, thoughts, and factors affecting sexual function. Further in-depth qualitative investigations along with the development of more effective, robust, and specific evaluation tools are key future directions needed to better address patient needs.