Sexual function in women with pelvic floor disorders

Rebecca G. Rogers, MD

Regent's Professor, Departments of Obstetrics and Gynecology and Surgery, and Director, Division of Urogynecology, University of New Mexico Health Sciences Center, Albuquerque, NM

Cite as: *Can Urol Assoc J* 2013;7(9-10):S199-201. http://dx.doi.org/10.5489/cuaj.1625
Published online October 9, 2013.

Abstract

Pelvic floor disorders (PFDs) can impact sexual function. This summary provides an overview of the impact of stress urinary incontinence and pelvic organ prolapse and their treatments on sexual function. In general, interventions that successfully address PFDs will generally improve sexual function as well. However, there are patients whose sexual function will remain unchanged despite treatment, and a small but significant minority who will report worsened sexual function following treatment for their pelvic floor dysfunction.

Difficulties with sexual function are common among women with pelvic floor disorders (PFDs). The following summary provides an overview of how to assess sexual health among patients with PFDs, the effects of PFDs and their treatments on sexual function, and also provides some insight into how to counsel these individuals about sexual activity.

Assessing sexual function

The simplest way to identify and begin to assess sexual function in the clinical setting is to ask the patient a series of simple questions: Are you sexually active? Do you have any problems? Do you have any pain with sexual activity? Notably, one should avoid asking if a patient is satisfied with her sex life, as satisfaction relates to expectations, which are highly variable from patient to patient.

Another way of assessing sexual function in women with pelvic floor disorders is to use a validated questionnaire. With respect to validated assessment tools, the International Continence Society (ICS) has evaluated the various instruments that can be used to quantify sexual function among women with urinary incontinence and pelvic organ prolapse. The ICS has given grade A recommendations (highly recommended) to three tools: the International Consultation on Incontinence Modular Questionnaire–Female Sexual Matters associated with Lower Urinary Tract Symptoms (ICIQ-FLUTSsex), and the 12- and 31-question Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaires (PISQ-12 and PISQ-31).[1] The PISQ has recently been refined and updated; the new validated tool is referred to as the International Urogynecological Association (IUGA)-Revised (PISQ-IR),[2] and is currently undergoing validation into more than 20 different languages. These questionnaires can be used as part of general assessment of the sexual life of women seeking care for their pelvic floor dysfunction.

Sexual health: Impact of PFDs and their treatments

In general, most PFDs negatively affect sexual health, and successful treatment of those problems improves function as well as other quality of life measures.

Hysterectomy and sexual health

Removal of the uterus has been thought to affect sexual function. In some women, rhythmic uterine contractions at the time of orgasm are perceived as pleasurable, and hysterectomy results in loss of that experience. For women who undergo hysterectomy for menorrhagia or other uterine pathology, resolution of the underlying condition typically results in improved quality of life including sexual function. There are three trials which have compared total hysterectomy to supracervical hysterectomy. These studies have shown that there is no difference in impact on sexual health whether the hysterectomy procedure is total or supracervical, whether women are aware if the cervix has been removed or not.[3-5] That being said, if a particular patient is adamant about needing her cervix to maintain sexual function, it should be left intact.

Oophorectomy at the time of hysterectomy may have an adverse impact on sexual health, particularly in premenopausal women. If there is a compelling reason for oophorectomy in a premenopausal woman, transdermal testosterone replacement may be considered to help maintain/improve sexual function.[6] While data are unknown regarding the impact of postmenopausal oophorectomy on sexual health, the senescent ovary continues to make testosterone throughout a woman's lifespan. Testosterone has been used as a treatment for low sexual desire in postmenopausal women, but the effects of this treatment are not consistent. Additionally,

one needs to be aware that it may be difficult for patients to apply the correct dose of testosterone if using transdermal formulations, and potential irreversible complications of excess testosterone use include voice deepening and clitoromegaly.[6]

Urinary incontinence and sexual health

Women with urinary incontinence report impaired sexual function compared to those without urinary incontinence. Studies have shown that surgery to address stress urinary incontinence (SUI) has a positive impact on sexual function, particularly with resolution of coital incontinence.[7,8] In a systematic review of 18 studies addressing sexual function post-SUI surgery, 32% of patients reported an improvement, 55% reported no change and a small but still substantial 13% of patients reported worsening of sexual function. Improvements in sexual health following treatment for SUI are due to a reduction in coital incontinence; it has not been shown that surgery has any impact on other aspects of sexual function such as desire, arousal or orgasm. Head-to-head studies of different types of incontinence surgeries (e.g., tension-free vaginal tape vs. transobturator tape) have not shown any significant differences between these interventions with respect to sexual function.[9]

In general, women who experience an improvement in their incontinence, regardless of the intervention, achieve improvement in sexual function as well. Pelvic-muscle exercises, continence pessaries and behavioural therapy have all been shown to improve sexual function among women with SUI, with a reduction in coital incontinence.[10,11] The impact of neuromodulation has been assessed among a small number (n=13) of women with refractory overactive bladder, among whom this intervention was associated with significant improvements in sexual frequency, desire, lubrication, orgasm, satisfaction, pain and total Female Sexual Function Index score, although this observational study lacked a control group.[12]

Prolapse and sexual health

Women with pelvic organ prolapse also typically report an impact of their condition on sexual function. When prolapse is addressed surgically, sexual function improves as well as body image. Improvement has been documented in both native tissue as well as grafted repairs in the majority of patients, although a small but significant number of women will report worsened sexual function following repair. Reasons for worsened function include dyspareunia, which may occur with mesh-related problems, or in native tissue repairs. Part of the problem with surgical treatment may be excessive shortening of the vagina. How short is too short? While no firm cut off exists, further shortening is likely to have a negative impact on sexual function in women whose vagina is equal to or shorter than 7 cm in length. As such, when treating a sexually active patient, the preoperative vaginal length needs to be assessed. This may help the surgeon choose an abdominal approach to repair, which will help to preserve vaginal length when compared to a vaginal approach.

Multiple authors have reported on the negative effects of posterior repair on sexual function, even when not associated with levatorplasty. It could be that women who undergo posterior repair do not report that same benefit in sexual function as those who do not undergo posterior repair as part of their prolapse surgery. For example, a study evaluating patients undergoing prolapse repair found that the proportion of patients reporting dyspareunia did not change among those with posterior repair, but among those who did not undergo posterior repair, the proportion with dyspareunia decreased significantly.[13] In a meta-analysis of prolapse repairs using mesh, dyspareunia was reported at approximately 10% postoperatively.[14]

Counselling patients

It is important to inform patients about the impact of their conditions on sexual health and the potential impact of interventions to treat those conditions. Importantly, women need to be reassured that prolapse does not preclude sexual activity, and that no harm can come to her or her partner from sexual activity before or after repair. Lubricants may be helpful to some patients, particularly as they resume sexual activity following treatment, and their use should be discussed.

Conclusions

Problems with sexual functioning are common among women with PFDs. In general, interventions that improve pelvic floor function usually also improve sexual function, with a small but significant population of women who will report worsened sexual function following treatment. Physicians should open the lines of communication with their patients with respect to sexual function and discuss the impact (positive or negative) of their condition and its treatment on their sexual function.

Competing interests: This article is part of a CUAJ supplement sponsored by Astellas Pharma Canada, Inc. Dr. Rogers serves as the Data Safety Monitoring Chair for the TRANSFORM trial, sponsored by American Medical Systems.

References

1. Staskin D, Kelleher C, Bosch R, et al. Incontinence. *Fourth International Consultation Proceedings. Health Publication*. In: Abrams P, Cardozo L, Khoury S, Wein A, editors. Paris; 2009:368-99.
2. Rogers RG, Rockwood TH, Constantine ML, et al. A new measure of sexual function in women with pelvic floor disorders (PFD): the Pelvic Organ Prolapse/Incontinence Sexual Questionnaire, IUGA-Revised (PISQ-IR). *Int Urogynecol J* 2013;24:1091-103. http://dx.doi.org/10.1007/s00192-012-2020-8
3. Learman LA, Summitt RL Jr, Varner RE, et al. A randomized comparison of total or supracervical hysterectomy: surgical complications and clinical outcomes. *Obstet Gynecol* 2003;102:453-62. http://dx.doi.org/10.1016/S0029-7844(03)00664-1
4. Gimbel H, Zobbe V, Andersen BM, et al. Randomised controlled trial of total compared with subtotal hysterectomy with one-year follow up results. *BJOG* 2003;110:1088-98. http://dx.doi.org/10.1111/j.1471-0528.2003.02395.x
5. Thakar R, Ayers S, Clarkson P, et al. Outcomes after total versus subtotal abdominal hysterectomy. *N Engl J Med* 2002;347:1318-25. http://dx.doi.org/10.1056/NEJMoa013336
6. Shifren JL, Braunstein GD, Simon JA, et al. Transdermal testosterone treatment in women with impaired sexual function after oophorectomy. *N Engl J Med* 2000;343:682-8. dx.doi.org/10.1056/NEJM200009073431002

7. Jha S, Moran P, Greenham H, et al. Sexual function following surgery for urodynamic stress incontinence. *Int Urogynecol J Pelvic Floor Dysfunct* 2007;18:845-50. http://dx.doi.org/10.1007/s00192-006-0245-0
8. Jha S, Ammenbal M, Metwally M. Impact of incontinence surgery on sexual function: a systematic review and meta-analysis. *J Sex Med* 2012;9:34-43. http://dx.doi.org/10.1111/j.1743-6109.2011.02366.x
9. Barber MD, Kleeman S, Karram MM, et al. Transobturator tape compared with tension-free vaginal tape for the treatment of stress urinary incontinence: a randomized controlled trial. *Obstet Gynecol* 2008;111:611-21. http://dx.doi.org/10.1097/AOG.0b013e318162f22e
10. Bø K, Talseth T, Vinsnes A. Randomized controlled trial on the effect of pelvic floor muscle training on quality of life and sexual problems in genuine stress incontinent women. *Acta Obstet Gynecol Scand* 2000;79:598-603. http://dx.doi.org/10.1034/j.1600-0412.2000.079007598.x
11. Handa VL, Whitcomb E, Weidner AC, et al. Sexual function before and after non-surgical treatment for stress urinary incontinence. *Female Pelvic Med Reconstr Surg* 2011;17:30-5. http://dx.doi.org/10.1097/SPV.0b013e318205e263
12. Pauls RN, Marinkovic SP, Silva WA, et al. Effects of sacral neuromodulation on female sexual function. *Int Urogynecol J Pelvic Floor Dysfunct* 2007;18:391-5. http://dx.doi.org/10.1007/s00192-006-0168-9
13. Komesu YM, Rogers RG, Kammerer-Doak DN, et al. Posterior repair and sexual function. *Am J Obstet Gynecol* 2007;197:101.e1-6. http://dx.doi.org/10.1016/j.ajog.2007.03.054
14. Abed H, Rahn DD, Lowenstein L, et al. Incidence and management of graft erosion, wound granulation, and dyspareunia following vaginal prolapse repair with graft materials: a systematic review. *Int Urogynecol J* 2011;22:789-98. http://dx.doi.org/10.1007/s00192-011-1384-5

Correspondence: Dr. Rebecca G. Rogers, University of New Mexico, 2211 Lomas Blvd NE, Albuquerque, N.M. 87106; rrogers@salud.unm.edu