Is the Uterus a Sexual Organ? Sexual Function Following Hysterectomy

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DOI: 10.1002/smrj.59

ABSTRACT

Introduction. Hysterectomy has been a mainstay of gynecologic therapy for 100 years. It can be postulated that hysterectomy could affect female sexual function due to psychological factors, and also due to disruption of the local nerve and blood supply and the intimate anatomical relationships of the pelvic organs.
Aim. To evaluate the effects of hysterectomy performed for benign conditions on female sexual function.
Methods. Peer-reviewed publications were identified through a PubMed search using the search terms "hysterectomy," "benign," "sexual function," "dyspareunia," "orgasm," "libido," and "dysfunction." The search was completed through to February 2015 and was limited to articles published in English.
Main Outcome Measure. The main outcome measure was sexual function after hysterectomy for benign conditions. As hysterectomy is performed via various routes, abdominal (open and laparoscopic) and vaginal, sexual function in each group was evaluated.
Results. Studies were of varying methodology. Majority of women demonstrated either unchanged or improved sexual function after hysterectomy performed by any route in the short term. A significant minority of women reported sexual dysfunction following hysterectomy. Deterioration in sexual function was found on long-term follow-up, which is probably an effect of aging and bilateral salpingo-oophorectomy. There were no proven benefits supracervical compared with total hysterectomy either in the short term (up to 2 years postsurgery) or long term (up to 15 years after hysterectomy).
Conclusions. Women can be positively reassured that hysterectomy does not negatively affect sexuality. Health professions should be aware that a minority of women may develop adverse effects after the operation. Preoperative education about the potential negative sexual outcomes after surgery may enhance satisfaction with hysterectomy, independent of whether negative sexual outcomes are experienced. **Thakar R. Is the uterus a sexual organ? Sexual function following hysterectomy. Sex Med Rev 2015;3:264–278.**

Key Words. Hysterectomy; Benign; Sexual Function; Dyspareunia; Libido; Orgasm

Introduction

Hysterectomy has been a mainstay of gynecologic therapy for 100 years. It continues to be performed frequently because it is tremendously effective for the treatment of abnormal uterine bleeding and pelvic pain [1]. A population-based survey identified a total of 7,438,452 women who had undergone inpatient hysterectomy between 1998 and 2010. Although there was an increase in trend in the number of hysterectomies performed from 1998 to 2010, a substantial decline (36.4%) was noted between 2002 and 2010. The median number of hysterectomies per hospital declined likewise by more than 40%. The decline was noted for all indications: leiomyoma (–47.6%), abnormal bleeding (–28.9%), benign ovarian mass (–63.1%), endometriosis (–65.3%), and pelvic organ prolapse (–39.4%) [2].

From times immortal, the uterus has been an object of enigma. Ancient Egyptians believed the uterus was a free-floating, independent, autonomous organ that wandered the body, its traveling ways causing all sorts of mental and physical maladies, disturbing and disrupting women from inside out. The term *hysteria* comes from the Greek word "hysterika," meaning "uterus." It was believed that a wandering and discontented uterus was responsible for the female ailment of excessive emotion and hysteria. In fact, for centuries, a hysterectomy, or removal of the uterus, was thought to cure emotional instability, as well as a host of other unrelated symptoms [3]. With evolving times, views about the uterus have changed. In 1966, Masters and Johnson suggested that the uterus was involved in the process of orgasm [4]. Subsequently in 1972, Singer described three types of orgasm: vulval, uterine, and blended. It, therefore, stands to reason that the removal of the uterus at hysterectomy could lead to female sexual dysfunction albeit in the group who experiences uterine orgasm [5]. The traditional model of human sexual response described by Masters, Johnson, and Kaplan depicts the stage of desire leading on to arousal, a plateau of heightened arousal that peaks briefly and releases in the experience of orgasm, to be followed by resolution [6]. However, the physiology of sexual function may be an important issue with men, while women may be more concerned with emotional intimacy [6]. While the frequency of intercourse may equate to improved sex life in some women, female sexual functioning may be more a matter of quality than quantity [7]. Moreover, sexual well-being may not be the same an absence of sexual dysfunction [8]. Understanding sexuality after hysterectomy, therefore, needs careful interpretation. Historically, the uterus has been regarded as the regulator and controller of important physiological functions, a sexual organ, a source of energy and vitality, and a maintainer of youth and attractiveness [9]. Little wonder, therefore, that women may feel that their sexuality could be affected after a hysterectomy.

When a hysterectomy is performed, there is disruption of the local nerve and blood supply and the intimate anatomical relationships of the pelvic organs. The nerve supply may be damaged in several ways: the main branches of the nerve plexus which traverse beneath the uterine artery may be cut during division of the cardinal ligaments [10], extensive dissection of the paravaginal tissue may disrupt the pelvic neurons passing from the lateral aspect of the vagina [11], or the removal of the cervix may result in the loss of a large segment of intimately related plexus [11]. Shortening of the vaginal vault after hysterectomy could result in dyspareunia [12], while estrogen and testosterone deficiency caused by hysterectomy and bilateral salpingo-oophorectomy (BSO) may cause vaginal dryness and libido loss [13]. Even when the ovaries are preserved, ovarian failure can occur after a hysterectomy [14]. It is, therefore, logical to hypothesize that hysterectomy could lead to sexual dysfunction. The idea that sexual well-being may differ according to the type of hysterectomy is based on the hypothesis that the techniques damage the innervation and supportive structures of the pelvic floor in varying degrees [15].

To comprehensively evaluate sexual function after hysterectomy, it is important to make a distinction between hysterectomy for benign and malignant disease as the operations performed for the two conditions involve varying degrees of dissection and disruption of the neuroanatomy of the pelvic organs [16,17]. During simple hysterectomy, only the ligaments with nerves innervating the uterus and the cervix are interrupted, sparing those innervating the surrounding structures. In contrast, radical hysterectomy in which the ligaments are disrupted more laterally is more likely to lead to sexual dysfunction [18]. A nerve sparing technique has been developed to overcome these issues, preserving innervations of pelvic organs, and there is accumulating evidence that the nerve sparing approach impairs sexual function less [18,19]. Cancer treatment modalities, including chemotherapy, surgery, and radiation, as well as patient and partner psychosocial issues, can all influence sexual function [18,20]. The issue of sexuality in women who have a radical hysterectomy is more complex. This review article is, therefore, restricted to women who have a hysterectomy for benign conditions of the uterus.

Aims

The study aims to evaluate the effects of hysterectomy performed for benign conditions on female sexual function.

Methods

Peer-reviewed publications were identified through a PubMed search using the search terms "hysterectomy," "benign," "sexual function," "dyspareunia," "orgasm," "libido," and "dysfunction." The search was completed through to