Women with Deep Infiltrating Endometriosis: Sexual Satisfaction, Desire, Orgasm, and Pelvic Problem Interference with Sex

Giulia Montanari, MD,* Nadine Di Donato, MD,* Arianna Benfenati, MD,* Giulia Giovanardi, MD,* Letizia Zannoni, MD,* Claudia Vicenzi, MD,* Serena Solfrini, MD,* Giuseppe Mignemi, MD,* Gioia Villa, MD,* Mohamed Mabrouk, MD,*† Claudio Schioppa, PhD,‡ Stefano Venturoli, MD,§ and Renato Seracchioli, MD*

*Minimally Invasive Gynaecological Surgery Unit, S. Orsola Hospital, University of Bologna, Bologna, Italy; †Gynecologic Oncology Division, Sacred Heart Hospital, Negrar, Italy; ‡European Center for Advanced Research in Economics and Statistics (ECARES), Université Libre de Bruxelles (ULB), Brussels, Belgium; §Department of Obstetrics and Gynecology, Gynecology and Reproductive Medicine Unit, S. Orsola-Malpighi Hospital, Bologna, Italy

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ABSTRACT

Introduction. Endometriosis is a chronic and progressive condition of women of reproductive age. It is strongly associated with a significant reduction of quality of life (QOL) and sexual function.

Aims. This study aims to objectively evaluate sexual function in women with deep infiltrating endometriosis (DIE) and to study the impact of endometriosis symptoms and type of lesion on patient's sexual function.

Methods. This is a cross-sectional study in a tertiary care university hospital. It included 182 patients with preoperative clinical and ultrasound diagnosis of DIE who were referred to our center from 2008 to 2011.

Main Outcome Measures. A sexual activity questionnaire, the Sexual Health Outcomes in Women Questionnaire (SHOW-Q) was used to collect data pertaining to satisfaction, orgasm, desire, and pelvic problem interference with sex. Short Form 36 (SF-36) was used to evaluate QOL. Demographic and clinical characteristics were assessed: age, body mass index, parity, ethnicity, postsecondary education, employment, smoking, history of surgical treatment, and hormonal contraception. Patients were asked about pain symptoms (dysmenorrhea, dyspareunia, dyschezia, chronic pelvic pain, and dysuria) using a visual analog scale.

Results. The mean values obtained on the different scales of the SHOW-Q showed poor sexual function (mean SHOW-Q total score 56.38 ± 22.74). Satisfaction was the dimension most affected (mean satisfaction score 55.66 ± 34.55), followed by orgasm (mean orgasm score 56.90 ± 33.77). We found a significant correlation between the SF-36 scores and the SHOW-Q scores ($P < 0.0001$). Sexual dysfunction and deterioration of QOL seem to be correlated. Analyzing the impact of symptoms and lesions on sexual function, we found that dyspareunia and vaginal DIE nodules significantly affect sexual activity ($P < 0.05$).

Conclusion. The results of this study demonstrated that women with DIE have a sexual function impairment, correlated with the overall well-being decrease. Moreover, the presence of dyspareunia and vaginal endometriotic lesions seems to be involved in sexual dysfunction. **Montanari G, Di Donato N, Benfenati A, Giovanardi G, Zannoni L, Vicenzi C, Solfrini S, Mignemi G, Villa G, Mabrouk M, Schioppa C, Venturoli S, and Seracchioli R. Women with deep infiltrating endometriosis: Sexual satisfaction, desire, orgasm, and pelvic problem interference with sex. J Sex Med 2013;10:1559–1566.**

Key Words. Deep Infiltrating Endometriosis; Sexual Function; Dyspareunia; SHOW-Q; Quality of Life; Chronic Pelvic Pain

Introduction

Endometriosis is a chronic and often progressive condition of women of reproductive age in which endometrial glands and stroma are present outside the uterus. Deep infiltrating endometriosis (DIE) is defined as a form of endometriosis that penetrates for more than 5 mm under the peritoneal surface [1,2]. Endometriosis induces an inflammatory reaction and an

infiltration of anatomic structures, and it can cause pain symptoms. The pain syndrome represents the major clinical problem of this disease, manifesting as dysmenorrhea, dyspareunia, chronic pelvic pain, dysuria, and dyschezia. However, women with endometriosis may have no symptoms at all, and finding endometriosis in some women may be coincidental, even in women with DIE.

DIE can involve the uterosacral ligaments, vagina, intestinal wall, rectovaginal pouch, ureter, and urinary bladder [3,4].

Endometriosis reportedly affects more than 170 million women worldwide [5], and the prevalence is usually estimated to be between 30% and 50% of symptomatic premenopausal women [6]. It is estimated that the incidence of DIE is around 20% of women with endometriosis [7]. DIE is strongly associated with a significant reduction in quality of life (QOL) [8–12] and sexual function [13–15]. In particular, sexual activity seems to be severely impaired among women with deep dyspareunia [16–18]. Several studies have correlated dyspareunia with the presence of DIE, specifically of the uterosacral ligaments [19,20]. Ferrero et al. demonstrated in a cross-sectional study that among subjects with deep dyspareunia, those with DIE of the uterosacral ligaments have the most severe impairment of sexual function [17].

Many studies indicate that women with endometriosis have less sexual and partnership satisfaction than healthy women [16–18–21,22]. Tissue fibrosis, pain, neural invasion, and chronic inflammation are among the factors which may contribute to sexual dysfunction in women with DIE. In particular, the neural invasion is represented by the penetrating action of the endometriosis cell of the wall of adjacent organs and consequently by the contraction of a close relation with the nerve fibers [22].

Furthermore, endometriosis may have a direct impact on sexual life through the interaction of physical and psychological factors.

Few studies in the literature underlined the impact of DIE on specific aspects of sexual functioning like sexual arousal, desire, orgasm, or other aspects of sexual activity.

In the present study, we assessed the impact of DIE on sexual activity, analyzing different areas of sexual life. Additionally, we tried to evaluate symptoms and localization of endometriotic lesions and their potential influence on sexual function.

Aims

We sought to, objectively, evaluate sexual function in women with DIE and to study the impact of endometriosis symptoms and type of lesion on patients' sexual function.

Methods

Design and Patients

For this cross-sectional study, full ethical approval was obtained from the local ethics committee for the study protocol (155/2008U/Oss).

From January 2008 to March 2011, in the Minimally Invasive Gynecological Surgery Unit of the Department of Gynecology, S. Orsola-Malpighi Hospital, University of Bologna, a consecutive series of 200 patients with preoperative clinical and ultrasound diagnoses of DIE agreed to take part in the study protocol. Inclusion criteria were as follows: women with DIE diagnoses, aged between 18–48 years and with knowledge of the Italian language. Women without a histological diagnosis of DIE were excluded. DIE was considered histologically confirmed when the lesion penetrated >5 mm under the peritoneal surface [1].

All women underwent gynecological examination and pelvic transvaginal and abdominal ultrasonography in order to evaluate the presence of pelvic endometriosis.

The transvaginal sonography (TVS) was performed by specialists with expertise on it using a standardized predefined technique, as previously described [23–28].

TVS was performed in a systematic manner using commercially available ultrasound machines equipped with a transvaginal wide-band transducer.

The DIE nodules in the posterior or anterior pelvic compartment were investigated by an ultrasound technique already described [23–28].

Other diagnostic tests, such as magnetic resonance imaging and computed tomography, were performed when indicated to evaluate the presence, localization, and extension of endometriosis lesions. Patients were assessed concerning demographic and clinical characteristics (age, body mass index [BMI], parity, ethnicity, postsecondary education, employment, smoking, history of surgical treatment, hormonal contraception). We evaluated pain symptoms using a visual analog scale (VAS) for five components of DIE-related pain: dysmenorrhea, dyspareunia, dyschezia, chronic pelvic pain, and dysuria. We used an 11-point scale