Clinical study of vaginal tightening surgery

Jeong-Ho Seo, MD, PhD

Department of Obstetrics and Gynecology, Yoonho Hospital, Seoul, Rep. of Korea

Background: The demand for vaginal tightening surgery has increased.

Objective: The purpose of this study was to evaluate sexual life satisfaction among patients who had undergone vaginal tightening surgery.

Methods: Patients who had undergone vaginal tightening operations from January 2019 to December 2020 were reviewed. We analyzed the clinical data retrospectively.

Results: A total of 105 patients got vaginal tightening operations. Of these, 102 patients (97.1%) were satisfied with the outcome of this surgery. The main operative indications were perineal appearance and sexual functional unsatisfaction. Of these, two patients (1.9%) had complications of postoperative operative site bleeding, which were recovered with additional simple suture techniques. No serious complications occurred.

Conclusion: Vaginal tightening surgery is a safe and effective operation for improving sexual life and cosmetic perineal appearance.

Keywords: operative indications; vagina; vaginal tightening surgery

Introduction

Vaginal tightening surgery is a common gynecological surgery. The main etiology of vaginal outlet relaxation is previous vaginal delivery. Beecham (1980) [1] first defined vaginal relaxation. When two or more fingers can easily enter the vaginal orifice, it is defined as vaginal relaxation. In this report, we analyzed the effectiveness of vaginal tightening surgery and summarized the outcomes of this procedure.

Materials and methods

The study included 105 patients. We categorized the patients into three groups according to the vaginal relaxation classification. The groups were: 1) mild relaxation (grade 1, three fingers fitting tightly at the vaginal orifice); 2) moderate relaxation

(grade 2, three fingers fitting into vagina easily and four fingers fitting tightly); 3) severe relaxation (grade 3, four fingers fitting into the vagina easily). Of the 105 patients, 58 patients (55.2%) were classified as grade 1, 41 (39.1%) grade 2, and 6 patients (5.7%) grade 3 (Table 1).

Vaginal tightening surgery was performed for 105 patients between January 2019 and December 2020. All procedures were performed in the outpatient department under intravenous anesthesia using propofol and midazolam, with patients in the lithotomy position. Anesthetic solution (2% lidocaine) was infiltrated between the vaginal mucosa and rectovaginal fascia at the posterior vaginal wall to facilitate hydrodissection.

The principles of the operation were as follows. First, we excised a somewhat narrow triangle of the skin and the underlying pre-rectal fascia from the posterior vaginal wall to expose the rectum as far as the vaginal orifice. An inverted triangle of the

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Corresponding author: Jeong-Ho Seo

E-mail: drseokr@hanmail.net

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skin was then raised from the perineum to expose the levator ani muscles anteriorly and the external anal sphincter posteriorly. The vaginal mucosa on each side was dissected free above

Table 1. Vaginal relaxation classification of the study population sample (n=105)

Grade	No. of patients (%)
Grade 1	58 (55.2)
Grade 2	41 (39.1)
Grade 3	6 (5.7)
Total	105 (100)

the pre-rectal fascial layer, from the lateral triangular base to the medial plane. The vaginal mucosa was then freely dissected. The medial edges of the latter fascia were sutured together in the midline to support the rectum. To avoid damaging the rectum, the insertion depth of the round needle was checked by inserting the operator's index finger during suturing. The posterior vaginal wall mucosa was closed with a continuous suture from the inside to the vaginal orifice. Digital examination of the anus was undertaken to ensure no injury in the anal canal or rectum. The perineum was repaired by defining the edges of the levator ani muscles and fixing them together using a subcuta-

Fig. 1. Photographs of a 37-year-old female who underwent vaginal tightening surgery. The preoperative view (A) and postoperative view at one month after surgery (B).

Fig. 3. Photographs of a 31-year-old female patient who underwent vaginal tightening surgery. The preoperative view (A) and postoperative view at one month after the operation (B).

Fig. 2. Photographs of a 49-year-old female patient. The preoperative view (A) and postoperative view at 6 months following surgery (B).

Fig. 4. Photographs of a 33-year-old female patient. The preoperative view (A) and postoperative view at one month after surgery (B).

neous suture.

Sequential photographs of the surgical technique are shown in Fig. 1-7.

Results

A total of 105 patients underwent vaginal tightening surgery. All the patients were discharged from our hospital on the day of operation. Post-surgery, the vagina opening of all patients

was able to fit one finger with ease and two fingers tightly. At 6 months following surgery, each patient was asked if the procedure improved their sexual life. We evaluated that there was satisfactory improvement in the sexual life of the treated patients after surgery. Of these, 102 patients (97.1%) were satisfied with the outcome of the surgery. The mean age of the patients was 39.4 years (range, 25–54 years). The median operative time was 30.5 minutes (range, 20–45 minutes). All patients were followed-up postoperatively at 1 week, 1 month, and 6 months. Three patients (2.9%) complained of functional or aesthetic problems following the operation. Two patients (1.9%) experienced post-operative bleeding, which was managed using simple suturing techniques (Table 2).

Discussion

Vaginal delivery can result in pelvic organ fascia and ligament relaxation, muscle damage, and vaginal relaxation [2]. These anatomical changes contribute to sexual dysfunction and a compromised perineal body appearance. The incidence rate

Fig. 5. Photographs of a 43-year-old female patient who underwent surgery. The preoperative view (A) and postoperative view at one month after surgery (B).

Fig. 6. Photographs of a 32-year-old female undergoing surgery. The preoperative view (A) and postoperative view at 6 months after surgery (B).

Fig. 7. Photographs of a 40-year-old female patient. The preoperative view (A) and postoperative view at 6 months following vaginal tightening surgery (B).

Table 2. Patient characteristics and operative results (n=105)

Characteristic	Value
Age (yr)	39.4 (25–54)
Operative time (min)	30.5 (20–45)
Overall patient satisfaction (n)	102 (97.1)
Postoperative complication (n)	2 (1.9)

Values are presented as mean (range) or number (%).

of vaginal relaxation is up to 50% [3,4]. Multiple pregnancies generally increase the incidence of vaginal relaxation. Vaginal tightening surgery is an effective method for correcting vaginal relaxation [5].

Vaginal relaxation is classified into different grades by Beecham [1]. 1) Mild relaxation: three fingers fitting tightly inside the vagina. 2) Moderate relaxation: three fingers fitting inside the vagina easily and four fingers fitting tightly. 3) Severe relaxation: four or more fingers fitting easily.

The demand for gynecological surgery has been increasing in many countries. Of late, there has been a surge in requests for vaginal tightening surgery in the common gynecological field [6]. In this study, we performed 105 vaginal tightening surgeries. Of these, 102 (97.1%) patients reported satisfactory improvement in sexual function and the appearance of the perineal body. Three other studies have reported similar improvements in sexual function following vaginal tightening procedures [7-9]. Abedi et al. [10] reported the results of vaginal tightening surgery and demonstrated improvement via the sexual function index but warned against an increased risk of dyspareunia with diminished vaginal lubrication. In our study, two patients had postoperative bleeding that were treated using simple suture techniques. No serious complications was observed.

In conclusion, vaginal relaxation following vaginal delivery may cause problems for the woman, including sexual life and the cosmetic aspects of the perineum. Vaginal tightening surgery is a safe and effective method that results in enhanced sexual satisfaction and it has a low complication rate. Therefore, this surgical procedure should be considered for women with functional and aesthetic problems relating to vaginal relaxation.

Conflicts of interest

The author has nothing to disclose.

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