Available online at www.sciencedirect.com

ScienceDirect

Journal of the Chinese Medical Association xx (2018) 1−6

www.jcma-online.com

Original Article

Improvement of overactive bladder symptoms: Is correction of the paravaginal defect in anterior vaginal wall prolapse necessary?

Hung-Yen Chin [a,b,c], Huang-Hui Chen [a], Ching-Hui Chen [a,b], Chi-Hsin Chiang [c], Chin-Jung Wang [d,*]

[a] *Department of Obstetrics and Gynecology, Taipei Medical University Hospital, Taipei, Taiwan, ROC*
[b] *Department of Obstetrics and Gynecology, College of Medicine, Taipei Medical University, Taipei, Taiwan, ROC*
[c] *Department of Obstetrics and Gynecology, Chang Gung Memorial Hospital at Keelung, Keelung, Taiwan, ROC*
[d] *Department of Obstetrics and Gynecology, Division of Gynecologic Endoscopy, Chang Gung Memorial Hospital, Linkou Medical Center and Chang Gung University College of Medicine, Taoyuan, Taiwan, ROC*

Received July 24, 2017; accepted November 23, 2017

Abstract

Background: To explore the relationship between overactive bladder (OAB) symptoms and paravaginal defects (PVDs), and to identify the necessity of PVD repair by transvaginal mesh (TVM) for the treatment of OAB symptoms.
Methods: A retrospective clinical study of 30 women with advanced cystocele with limited apical and posterior vaginal wall prolapse was conducted to identify any changes in OAB symptoms following a single Perigee procedure. Prolapse was assessed using the pelvic organ prolapse quantification (POP-Q) system, and paravaginal defects were identified by sonography. Complete urodynamic examination was performed prior to and one year after operation. All patients completed the overactive bladder questionnaire pre- and postoperatively for a quantitative assessment of OAB symptoms.
Results: All patients showed a significant improvement at points Aa and Ba in the POP-Q system. The results of the administered questionnaire revealed statistically significant improvement postoperatively. The difference of OAB symptoms between the group with PVDs and that with central defects was not statistically significant ($p = 0.67$). Moreover, no statistically significant improvement of OAB symptoms in the group with repaired PVDs was observed postoperatively ($p = 0.42$).
Conclusions: Statistical improvements of symptoms exist after Aa and Ba points recovery as evaluated by POP-Q system regardless of PVD existence identified by sonography. Repairing PVD did not show significantly improve the severity of OAB symptoms in objective urodynamic data or subjective questionnaire data. The superiority of TVM in PVD repair to manage OAB symptoms seems not manifest.
Copyright © 2018, the Chinese Medical Association. Published by Elsevier Taiwan LLC. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Keywords: Cystocele; Overactive bladder; Overactive detrusor; Surgical mesh; Urinary bladder prolapse; Vaginal prolapse

1. Introduction

In 2002, the Food and Drug Administration (FDA) cleared the first surgical mesh product specifically for use in pelvic organ prolapse (POP). However, in 2008 and 2011, the FDA issued a safety communication that warned physicians and consumers about an increase in adverse event reports related to the mesh used for urogynecological procedures. By convening an advisory panel and issuing orders to manufacturers to

Conflicts of interest: The authors declare that they have no conflicts of interest related to the subject matter or materials discussed in this article.

* Corresponding author. Dr. Chin-Jung Wang, Department of Obstetrics and Gynecology, Division of Gynecologic Endoscopy, Chang Gung Memorial Hospital at Linkou, 5, Fu-Hsin Street, Taoyuan 333, Taiwan, ROC.
E-mail address: wang2260@gmail.com (C.-J. Wang).

https://doi.org/10.1016/j.jcma.2017.11.013
1726-4901/Copyright © 2018, the Chinese Medical Association. Published by Elsevier Taiwan LLC. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Please cite this article in press as: Chin H-Y, et al., Improvement of overactive bladder symptoms: Is correction of the paravaginal defect in anterior vaginal wall prolapse necessary?, Journal of the Chinese Medical Association (2018), https://doi.org/10.1016/j.jcma.2017.11.013

address specific safety and effectiveness concerns, the FDA reclassified transvaginal mesh (TVM) from class II (moderate risk) to III (high risk) in 2014. During this period, owing to the numerous lawsuits and the serious FDA warnings, some of the controversial products were taken off the market. This had caused a concern among urogynecologists because the products were unique and irreplaceable.

Before TVM was released to the market, successful treatment of paravaginal defects (PVD) was one of the most challenging aspects of pelvic reconstructive surgery. The technical difficulties in performing an effective PVD repair, as described by White in 1912,[1] have limited its widespread use in clinical practice.[2,3] Thus, anterior colporrhaphy became the most popular surgical procedure to repair anterior vaginal prolapse, owing to its simplicity.[2] However, the recurrence rate was high associated with anterior colporrhaphy, which could be attributed to inadequate PVD repair, was an extremely significant limitation.[4] The mesh of TVM connected with four anchors had adequate support to repair the paravaginal defect and was acclaimed because of its ability to repair a cystocele in one procedure regardless of the defect, i.e., whether central or paravaginal. The outcomes of advanced anterior vaginal wall prolapse repair by TVM have been cited in several studies.[5−9]

Overactive bladder (OAB) symptoms, such as urinary frequency, urgency, and nocturia, are common among patients with vaginal anterior wall prolapse.[10,11] Previous studies reported that patients with severe vaginal prolapse (cystocele grades 3 and 4) experience more urinary urgency and frequency.[12] Even, a significant decrease in detrusor overactivity following surgery was noted among patients with advanced prolapse.[12,13] Nevertheless, the relationship between vaginal wall prolapse and OAB symptoms still remains controversial.[14−16] This may be because, previously, anterior vaginal wall repair was inadequate, especially for PVDs.[1,2,4]

In this study, we employed the Perigee™ system (Transobturator Anterior Prolapse Repair System, American Medical Systems Inc., Minnetonka, MN), which was a pioneer of TVM device and designed to repair central and bilateral PVDs simultaneously.[5,17,18] A sonographic scan was performed, as described by Ostrzensky, to assess paravaginal wall defects precisely.[19] Consequently, we could evaluate whether PVD repair by Perigee affects OAB symptoms.

The aim of this study was to explore the relationship between OAB symptoms and PVDs and to identify the necessity of PVD repair by TVM for the treatment of OAB symptoms.

2. Methods

The statistical data were from our previous study conducted from 2006 to 2010. This study was supported by the Medical Research Project (CMRPG250091) at Chang Gung Memorial Hospital in Keelung, Taiwan, and approved by the Institutional Review Board of the same institution. All patients had OAB symptoms for more than 6 months. Our diagnosis of OAB syndrome was consistent with the following definition proposed by the International Continence Society (ICS) in 2002: urinary urgency with or without urge incontinence, usually with urinary frequency (voiding eight times or more in a 24-h period), and nocturia (awakening two or more times at night to void).[20] All patients with OAB symptoms had no history of anti-incontinence surgery, pelvic reconstructive surgery, or any urological surgery. The exclusion criteria also included the presence of symptoms related to voiding dysfunction with high residual urine volume, chronic pelvic pain, and painful bladder syndrome. Furthermore, patients on medication that could affect bladder function and those with hypertension, diabetes mellitus, diabetes insipidus, neurological disorders, stroke, and psychological problems, followed up on an outpatient basis, were also excluded. All patients underwent routine urinary and pelvic examinations. Patients with pathological conditions, such as urinary tract infection, urogenital tract malignancy, pelvic mass or malignancy, urethral diverticulum, urinary tract stone history, or intravesical lesion were also excluded. In addition, no patient showed a significant increase in uterine size or pelvic mass in sonographic examination.

Patients were screened according to the Baden−Walker system.[18,21] Those with anterior wall prolapse of Grade 3 or above were enrolled. The prolapse in each vaginal segment was measured according to the pelvic organ prolapse quantification (POP-Q) system. A sonographic scan was performed, as described by Ostrzensky and Osborne, to assess PVDs (Fig. 1).[19] A 27-Hz curved transducer was used with the patient having full bladder and lying supine. The images were in a transverse suprapubic view (Fig. 1).

A complete urodynamic examination was performed immediately prior to and one year after operation. This includes urodynamic studies, consisted of filling cystometry, urethral pressure profilometry, and free uroflowmetry, performed with the patient in supine position and using water media with a Duet Logic G2 manometer (Medtronic-Dantec™, Denmark). A triple-lumen urethral catheter (8 Fr.) was inserted into the urethra and then pulled at 2 mm/s. For uroflowmetry, the patients were seated on a micturition chair for the assessment, with sufficient gauze placed in the vagina during the test.

All patients were asked to complete the overactive bladder questionnaire (OAB-q, translated into Chinese, downloaded from the website: https://www.pfizerpatientreportedoutcomes.com, Copyright © 2004 Pfizer Inc.) for the quantitative assessment of symptoms before and one year after operation.[22]

2.1. Operative procedures

The Perigee procedure, similar to that described by Palma et al., was performed in all patients by the same physician. The patients were placed under general endotracheal anesthesia. Dissection made the rollover of the anterior vaginal wall to the level of the bladder neck possible. Lateral dissection at the ischium-pubic level allowed four Perigee needles to pass through. Each needle was pulled back, and the mesh underneath the cystocele was kept in a tension-free manner. The mesh was drawn down to the lowermost portion of the cystocele and fixed at that point by suture.

Please cite this article in press as: Chin H-Y, et al., Improvement of overactive bladder symptoms: Is correction of the paravaginal defect in anterior vaginal wall prolapse necessary?, Journal of the Chinese Medical Association (2018), https://doi.org/10.1016/j.jcma.2017.11.013

Download English Version:

https://daneshyari.com/en/article/10218850

Download Persian Version:

https://daneshyari.com/article/10218850

Daneshyari.com