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Third Grade Uterine Prolapse in Young Age after Second Surgical Reconstruction

Abstract

Recurrent Pelvic organ prolapse is a condition that affects the quality of life for women. Uterine prolapse percentage reached 35-50 % of women and the incidence increases with age and parity. In young women in reproductive age, uterine prolapse incidence is low, only 2 % nulliparous women experience POP. This case report aims to study the causes of uterine prolapse stage III-IV at young age after second reconstructive surgery. A 38 years old woman came to gynecology outpatient clinic dr Soetomo hospital, her chief complaint was uterine dropped after second reconstructive surgery. She had the first surgery at the age of 22, with reduction of round ligament (Baldy-Webster suspension), and had the second reconstruction surgery at the age of 31 years. A Purandare procedure was done few weeks afterwards, when she had cough and the pelvic organ going downward again. The third operation is scheduled, few weeks afterward, it was decided to do purandare procedure because of her age and nulliparity. However, due to severe adhesion and during surgery right tuboovarial abcess is found, SVH-SOD, adhesiolisis and Purandare procedure to suspend cervix stomp. Histopathologic result shows decreased collagen levels IA2. As a conclusion, the cause of twice uterine prolapse in these patients is the decrease of collagen, intraabdominal pressure and infection from tuboovarial abscess.

Keywords: Recurrent uterine Prolapse; Collagen; Purandare

Case Report

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Introduction

Pelvic organ prolapse (POP) is a condition that affects the quality of life for women. Uterine prolapse percentage reached 35-50% of women and the incidence increases age and parity. Approximately, 50% of women who gave birth vaginaly will suffer genital prolapse. In the United States, the age was associated with the increased incidence of uterine prolapse surgery, which are women over the age of 50 years, i.e. from 2.7 to 3.3 per 1000 women with uterine prolapse. The data of uterine prolapse incidence in Indonesia has not been established yet. According to the annual report of obstetrics and gynecology department, Hasan Sadikin Hospital in 2007, the incidence of uterine prolapse during 2007 were 30 cases [1,2].

Some important factors in the incidence of uterine prolapse are: age, hormones, estrogen, collagen density, birth injury, obesity, chronic cough, and chronic constipation. Factors affecting ligaments, pelvic floor muscles, pelvic organs and fascia [3,4].

In young women in reproductive age, uterine prolapse incidence is low, mentioned only 2% of nulliparous women have POP. Some study found that patients with uterine prolapse had decreased collagen substance. The component of immature collagen cross-links patients is relatively higher compared to non-POP patients. This newly formed collagen is degraded easier than older glycated material, thus resulting in decreased collagen matter, which cause glycated collagen tissue disorders produce with impaired mechanical force. Increased metalloproteinase activity showed increased collagen degradation in patients with POP [5-7].

This case report will present the cause of uterine prolapse stage III-IV at young age, after twice reconstructive surgery, which was caused by the decreased of collagen, intraabdominal pressure and infection of tuboovarial abscess.

Case Report

A 37-year- old woman came to the gynecology outpatient clinic dr. Soetomo hospital Surabaya on November 16, 2011 with a chief complaint of uterine bump out and want a third time operations. In 1996, patients came to the gynecology outpatient clinic Adi Husada hospital Surabaya because of uterine bump out. She was diagnosed with uterine prolapse 3rd - 4th grade and reconstructive surgery was performed with round ligament reduction (Baldy- webster suspension). Patients return to good condition but 2 weeks later the patients coughing and uterine bump out again. Patients undergo a traditional massage therapy and herbal therapy but the symptom did not improve. She was married 9 years afterwards (in 2005) and came back to the gynecology outpatient clinic Adi Husada hospital Surabaya. OB/GYN diagnosed her with uterine prolapse after reduction round ligaments and performed second reconstructive surgery with Purandare procedure. One week after discharged from hospital, the patient had cough and uterine bump out again. Patient had difficulties in sexual intercourse because of difficult penetration. In 2011, 6 years afterwards, patient came to Adi Husada hospital and wished her uterus to be removed, because the couple wished the problem solved and not repeated. She was reffered to dr Soetomo hospital, Surabaya, because of prediction of technical difficulties due to repeated reconstructive surgery.

From physical examination, her gynecologic organs were within normal limit. The lump appears to be a part of the uterus. Parametrial adnexa were suspected to have adhesion. Laboratory examination results were within normal limit.

The patient was diagnosed with 3rd-4th stage uterine prolapse (Banden-Walker System). In regard of the nulliparity and age, the third reconstructive surgery with Purandare procedure was arranged. During the surgery, the uterus had limited mobility, were adhered with intestinal and the adhesion was released. In addition, the bottom of the uterus is also difficult to be released from the rectum. The right aparametrial adnexa were edematous and contained pus. The surgeon decided to do SVH-SOD, adhesiolisis and purandare procedure of the vaginal stomp. The diagnosis after the surgery was uterine prolapse grade III-IV, right Tubo Ovarial Abcess and severe adhesion.

Histopathology examination was done on the specimen removed from the surgery, and was compared with uterus removed from surgery of non-prolapsed uterus uterine myoma. Histopathologic examination result from the right adnexa was suppurative granulation, chronic salphingitis. Before that examination with VanGieson staining and Mason Tricome was done to assess the connective tissue collagen in the round ligament. Both collagen preparations obtained positive results. IA2 collagen immunohistochemistry examination also showed positive results in both specimens, but prolapsed uterine had fewer network of collagen tissue than those in uterine myoma specimen.

Table 1: Comparative pathology anatomy results of the patient's uterine prolapse with patient's uterine myoma.

Diagnose	Uterine Prolapse III-IV grade + Tubo Ovarial Abses D + great adhesion	Uterine myoma
Therapy	Supravaginal Hysterctomy -Salphingo Oopherestomy Dextra + Purandare cervical stomp from SVH	Total Abdominal Hysterectomy -Bilateral Salphingo Oopherectomy
PA	Uterus, Cervix, adnexa extra; -Granulation tissue Suppurative -Chronic Saphingitis dextra	Uterus, cervix, adnexa, dets -Leiomyoma uteri
Mason tricome	Colagen positif	colagen positif
Von gieson	Colagen positif	colagen positif
Colagen I A2	Positif	Positif
Not	When compared to paraffin blocks uterine prolapse have fewer collagen network from paraffin blocks uterine myoma	

Discussion

Diagnosis uterine prolapsed

In this case, the patient was a 38-year-old woman who had undergone reconstructive surgery twice. The chief complaint of patients is small bump out since 1996. Mild pain is felt. No complaints of urinary and bowel disorders. During 6 years of marriage this patient only had sex intercourse with her husband once, because of difficult penetration. The symptoms above describes the symptoms of pelvic organ prolapse.

Physical examination of the patient is carried out by visual inspections with speculums and vaginal examination. From visual inspection, a bulge coming out of the vaginal introitus with impression it was the uterus. From vaginal examination, most part of the uterus was palpated in the vagina. In an attempt to push the uterus back to the abdominal cavity was failed. From inspection with speculums, no protrusion on either the anterior segment or posterior segment. Abdominal ultrasound was intended to evaluate the liver due to chronic hepatitis B, not intended to evaluate the POP. It was concluded that the patient diagnosis was uterine prolapse degree III-IV without cystocele and rectocele.

Management of uterine prolapsed in women of reproductive age

This patient had her first surgery in 1996, the operation with a reduction of round ligament (Baldy-Webster suspension). Taken into consideration that at that time she was not married so that patients conservation of the uterus is the first choice. A week after surgery the patient had cough and the uterus came down again.

The second operation was carried out in 2005. Purandare procedure was done. The selection of this method was because the patient wanted to have children, and methods of first operation procedure was failed, so the uterus is retained and this method is easier and easily controlled by the operator. However, 2 weeks after surgery the patient had a cough and the uterus went down again. Because of the patient nulliparity and age, operation by conserving the uterus is by purandare was taken into consideration. There was also a possibility that the previous surgery was not optimal. During the surgery, the uterus had limited mobility, were adhered with intestinal and the adhesion was released. In addition, the bottom of the uterus is also difficult to be released from the rectum. The right aparametrial adnexa were edematous and contained pus. The surgeon decided to do SVH-SOD, adhesiolisis and purandare procedure of the vaginal stomp. The diagnosis after the surgery was uterine prolapse grade III-IV, right Tubo Ovarial Abcess and severe adhesion. The hysterectomy in patients in reproductive age and still has no child theoretically should not be done, but with some consideration the presence of infection and small chance of reproduction success rate, this action must be performed. Tuboovarial abscesses are a source of infection resulted in severe uterine adhesions to the rectum so that the uterus has limited mobility and cannot be removed upwards. When released feared an injury to the rectum so that there will be a new, more serious problems. In this case SVH-SOD action may be warranted. For purandare action on vaginal butts to prevent vaginal prolapse.

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Caused uterine prolapsed

This patient had twice reconstruction surgery. Both operations failed 1-2 weeks later and were started by the same event that is coughing. Intra-abdominal pressure can also affect the occurrence of failure. Operating results sent to the anatomy and pathology as well as a comparison of the operating results of the examined patients with non- prolapsed uterus myoma uteri i.e. as initially examined the results of Granulation suppurative, chronic Salphingitis dextra after it was examined by Van Gieson staining and Mason Tricome to assess the connective tissue collagen in the round ligament. Both collagen preparations obtained positive results. After that examined IA2 collagen immunohistochemistry also obtained positive results in both preparations but in preparation uterine prolapsed have fewer than collagen network of collagen tissue in preparation uterine myoma. Possible causes of uterine prolapse in these patients are apart from the intra-abdominal pressure caused by coughing is also suspected due to decreasing levels of collagen. Tubo Ovarial Abscess causing severe adhesions that cause uterine mobilization difficult.

Conclusion

Can be concluded several possible causes uterine prolapsed in these patients decrease of collagen, intra-abdominal pressure and infection from abscesses ovarial Tubo.

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