

Purandare Hysteropexy in A 32 Years Old Woman with Stage III Pelvic Organ Prolapse and Cesarean Section History: Case Report

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Abstract

Background: In reproductive age and low-parity women, pelvic organ prolapse is an uncommon case. Although this condition isn't harmful, giving an appropriate treatment is important while considering women needs. This case report covers about the management of Purandare hysteropexy in a 32 years old woman with stage III pelvic organ prolapse and cesarean section history.

Case: Conservative surgical therapy, Purandare hysteropexy, was performed on a reproductive age woman with stage III pelvic organ prolapse who wish to conserve her uterus.

Result: Purandare hysteropexy was successfully performed on the patient, and she has better quality of life and minimal complaint after surgery.

Conclusion: Purandare hysteropexy is an appropriate conservative surgical therapy, comparable to mesh using surgery, for women of reproductive age with pelvic organ prolapse.

Key words: pelvic organ prolapse, reproductive-age women, Purandare, hysteropexy

Histeropexi Purandare pada Wanita Usia 32 Tahun dengan Prolaps Organ Panggul Derajat III dan Riwayat Seksio Cesarea: Laporan Kasus

Abstrak

Latar Belakang: Prolaps organ panggul adalah kasus yang jarang terjadi pada wanita usia reproduktif atau riwayat paritas rendah. Walaupun kondisi ini tidak berbahaya, terapi yang diberikan harus sesuai dengan keperluan dari wanita. Laporan kasus ini menggambarkan proses manajemen histeropexi purandare pada wanita usia 32 tahun dengan prolaps organ panggul wanita derajat III dan riwayat seksio cesarea.

Kasus: Terapi bedah konservatif, histeropexi purandare, dilakukan pada wanita usia reproduktif dengan prolaps organ panggul derajat III yang masih ingin mempertahankan uterusnya.

Hasil: Purandare histeropeksi berhasil dilakukan pada pasien. Pasien mempunyai kualitas hidup dan keluhan yang minimal setelah prolaps organ panggul

Kesimpulan: Histeropexi Purandare adalah terapi bedah konservatif, yang sesuai, setara dengan pembedahan yang menggunakan mesh, untuk dilakukan pada wanita usia reproduktif dengan prolaps organ panggul.

Kata kunci: prolaps organ panggul, wanita usia reproduktif, purandare, histeropexi.

Introduction

Pelvic organ prolapse (POP) can be defined as descent of pelvic organs including uterus or vaginal vault, bladder or bowel resulting in herniation of these organs into or through the urogenital hiatus.¹ Incidence of POP increased after 6th decade of life, with greater parity as the main risk factor.^{1,2} In a young age woman, POP case is scarcely found.^{3,4} It's estimated that prevalence of POP for women below 40 years old is 1.4%.⁵

The pathogenesis of POP in younger women differs from older one and not fully understood. Some contributing factors, such as pregnancy, vaginal birth, have family histories of POP, low estrogen level have been found to increase this incident.⁵ Women in this age group tend to seek treatments which can conserve her fertility function.

Current conservative surgical techniques are frequently using mesh as a sling to support the uterus inside the pelvic. However, related side effects or complication have been reported after mesh usage, such as: erosion, vaginal synechia, bladder injury due to mesh protrusion, vesicovaginal fistula, mesh shrinkage, dyspareunia and chronic pain.⁶

This article is our second report on a case of POP in a young woman who had suffered an untreated prolapse after her first delivery. Due to the prolapse, the patient preferred a caesarean section for the second delivery. Thereafter she came to our hospital seeking for conservative treatment due to her symptoms.

The Purandare hysteropexy technique is one of POP treatments to preserve the uterus. This technique was originally used rectus sheath as the sling to support uterus at its place, but it had been modified by using mersilene tape/mesh to give more endurance. By using patient rectus sheath, as an auto graft, we can offer a better prognosis with less side effect and morbidity compared to using mesh.^{7,8}

Case Report

A 32 years-old woman came to our outpatient care, Sanglah General Hospital, Denpasar, Bali. She had complained of a mass bulging from her vagina for 4 year and began to interfere with her work and her sexual life. There was no change in the pattern of bowel movements and micturition. There was no record of chronic diseases such as chronic cough and constipation. There was also no history of the same ailments in her family. The patient is a grocer and never does hard work. The patient had a normal vaginal delivery in 2015. The baby weighted 3000 grams at birth and prolonged delivery was denied. Since the first delivery, she felt a mass protruding from the vagina and left untreated. In 2018, she delivered her second baby by caesarean section because she was concerned about this mass.

The POP Quantification examination result was: Aa 0, Ba +2, C +2, Gh 5, Pb 4, TVL 8, Ap 0, Bp 0, D -1. The patient was diagnosed with stage III cystocele, stage III uterine prolapse and stage II rectocele. Purandare hysteropexy was chosen as a conservative surgical therapy for this patient. It was done on August 27, 2020 at Sanglah General Hospital, Denpasar, Bali.

Before Purandare hysteropexy, anterior Colporrhaphy and Colpoperineorrhaphy was performed to correct prolapse of the anterior and posterior vaginal walls. Purandare hysteropexy began by performing a pfannenstiel incision, as in the previous incision, to avoid additional scar for the patient. Once the fascia was exposed, it was then dissected from the surrounding tissue. The fascia band was made by making a 2 cm transverse incision in of the fascia and then divided into 2 in the middle. After evaluating the internal genital organs, the end of the fascial band was inserted and passed through the lateral side of peritoneum. The contra-

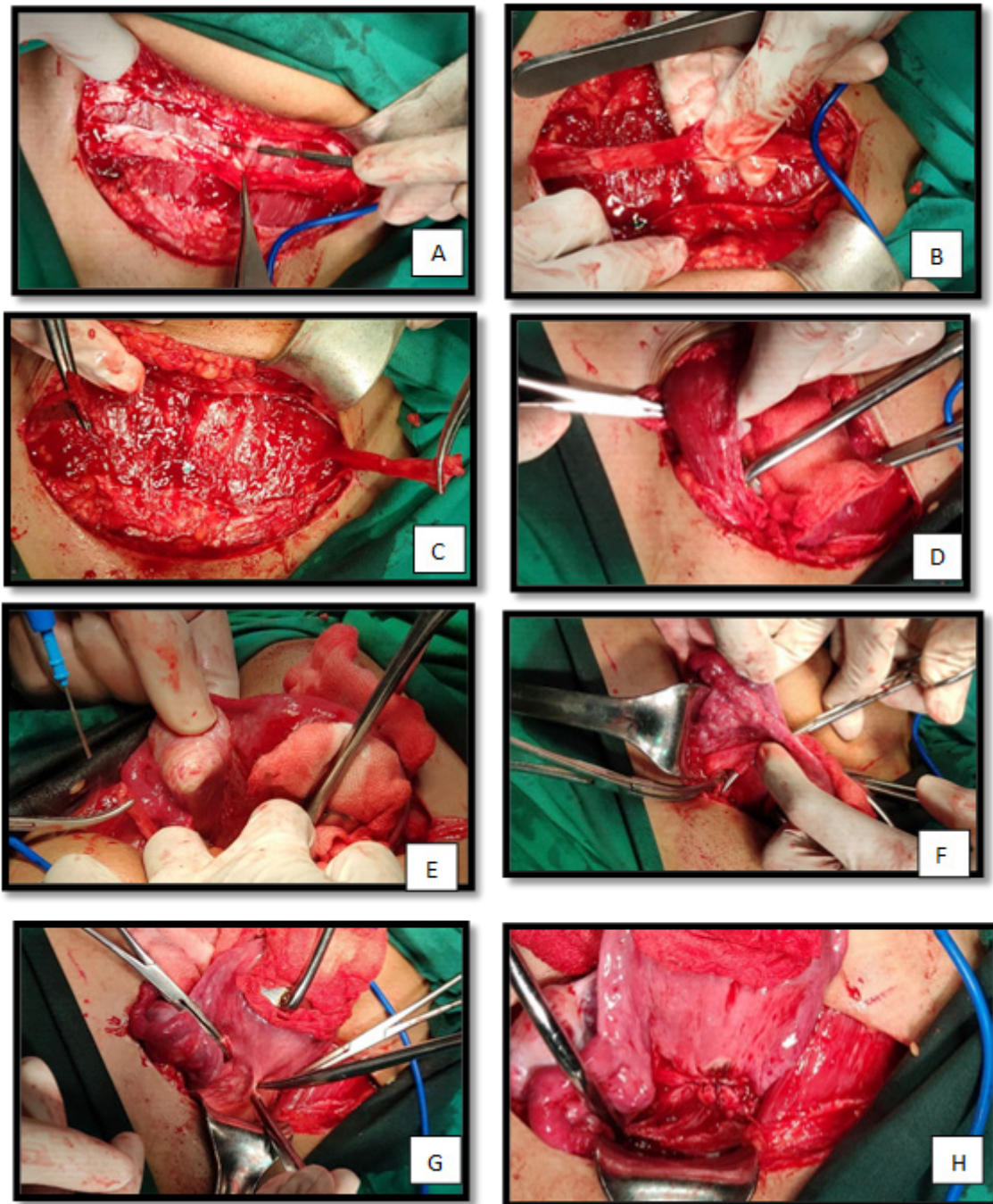


Figure 1 A) Fascia was dissected from surrounding tissue and incised at the centre, (B) the fascia band was made, (C) the band was divided into 2 in the middle, (D) the band was penetrated into peritoneum from the lateral side of rectus muscle, (E) the uterus was fixated, (F) avascular tunnel was made on broad ligament and the band was inserted through this tunnel to surround posterior of uterus, (G) the bladder was separated from uterus (H) the band was brought to anterior side of uterus through contralateral tunnel and sutured to lower segment of the uterus.

lateral fascial band was treated in the same way. After separating uterus and bladder, the surgery was continued by making tunnels on the broad ligament. Both of these fascia bands were penetrated through this ipsilateral tunnel and brought to anterior of uterus from the other side tunnel at approximately the same level as the sacrouterine ligaments. Fascia bands sutured to lower uterine segment with polyglactin 0. Then we closed the bladder flap, followed by abdominal wall.

We found some difficulty in this operation compared to our patient in previous case report. Due to patient's previous surgery, extra time was needed to separate surrounding tissue from the rectus sheath. Adhesion also found between uterus and bladder which must be dissected carefully to avoid any bladder injury.

Patient was admitted at our hospital for 2 days post operation. There were no further complaints about the mass at subsequent follow-up. The patient denied neither micturition nor defecation abnormalities. After 3 months following the surgery, patient stated that she is no longer bothered by mass bulging from vagina anymore. She also denied having post-surgery sexual discomfort. Patient was satisfied with the surgery and the result.

Discussion

This surgery was more difficult than our first reported Purandare hysteropexy⁹, especially when separating rectus sheath with surrounding tissue and uterus with bladder. We were able to carry out our operation in almost same way as the previous one, except the skin incision and adhesion release at rectus sheath with surrounding tissue and bladder with uterus.

Before uterine conservation procedures emerged, hysterectomy was the best option for any symptomatic POP due to its possibility to reoccur. Beside its function

to preserve fertility, uterine conservation procedure was found to have less morbidity than hysterectomy, such as three times lower risk of urinary complication.¹⁰ Any conservative procedure should be consider because it seems to be safe for women who want uterine preservation.

In 1965, dr. B. N. Purandare introduced Purandare hysteropexy, which used rectus sheath strips as a sling material to correct and support uterus position.¹¹ Purandare hysteropexy was later developed by Dr. B. N. Purandare and Pravin Mhatre using polypropylene mesh to attached uterus in the same way while the others side fixated to rectus muscle. It is offers dynamic support to the uterus compared to sacrohysteropexy methods.¹² This dynamic support allows a reproductive-age women to have another pregnancy as in our first case using this technique. However, uterus becomes tilted abnormally backward after surgery. There is a risk of the bowel loop getting stuck between the uterus and the anterior abdominal wall.¹³ Because both of these bands anchored to anterior of the uterus, this procedure must be redone during the next cesarean section (LSCS).

This technique initially used the patient's rectus sheath as a medium to support the uterus. Thus, any unfamiliar body responses which normally associated with mesh usage can be avoided.¹⁴ Erosion, vaginal synechia, bladder injury due to mesh protrusion, vesicovaginal fistula, mesh shrinkage, dyspareunia and pain can be found as mesh related complication.⁶ Despite the complication, mesh or any synthetic materials are currently chosen by many gynecologist because of its durability, availability and inexpensiveness.¹⁵

In our hospital, we still choose to use patient rectus sheath to minimize complication during and after conservative uterine preservation surgery. This native tissue also gives more mobility than mesh to uterus. This procedure also can be redone

easily during cesarean section in the next delivery. Recurrent prolapse could be found after long term follow up, due to low durability of this rectus sheath, but no more than stage I.¹⁶

Purandare hysteropexy using rectus sheath is a conservative surgical therapy, as an alternative comparable to mesh using surgery, which is suitable for women of reproductive age with pelvic organ prolapse. Although its durability is lower than mesh, side effect or complication associated with mesh can be avoided by using rectus sheath with great result satisfaction.

Conflict of interest: none

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