Purandare Hysteropexy Technique in a 28-year-old Female with Pelvic Organ Prolapse Stage III: A Rare Case Report

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Background: Pelvic organ prolapse is rarely found in reproductive-age women or in women with low parity. However, the finding has be further investigated to determine any risk factor involved, as well as to decide on the most appropriate management. This case report discusses the management of Purandare hysteropexy in a 28-year-old female with pelvic organ prolapse stage III. Case: A conservative surgical management on a reproductive-age woman with pelvic organ prolapse stage III, who wants to preserve her uterus. Result: The patient had an anatomical reconstruction. She had a better quality of life after the Purandare hysteropexy, and had less complains. Conclusion: Purandare hysteropexy is one of the conservative surgical management on reproductive-age women who still wants to conserve their uterus or reproductive organ.

Keywords: pelvic organ prolapse, reproductive-age women, Purandare, hysteropexy

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INTRODUCTION

Pelvic organ prolapse is the descend or prolapse of uterus/vault, bladder, or rectum through the urogenital hiatus that affect women of all ages.¹ Pelvic organ prolapse does not directly causing death, but it affects the quality of life.

Complaints may arise from the protruded mass causing an uncomfortable feeling, a urine incontinence, a fecal incontinence or even a sexual disfunction. These symptoms affect socially and financially. An epidemiology study of pelvic organ prolapse (POP) stated that the peak incidence of POP occurred in women at their sixth decade of life with more number of parity as their main risk factor.¹,²

POP is rarely found in a young age woman. Other intrinsic factor, such as the genetic or congenital bearing of the pelvic floor support, is one of the POP risk factor in young age woman.²,³,⁴

CASE REPORT

A 28-year-old woman with one parity complained a mass protruding from her vagina for the last one year. She complained the protruded mass started to disturb her work and sexual life since one month ago. There was no pattern change in her defecation and micturition, no history of chronic disease such as chronic cough or constipation, and no history of the same complaint within her family. She worked as a construction worker since 5 months ago, 5 hours per day. She had a normal vaginal...
delivery without any instrumentation in 2008. She denied any prolonged labor during her last delivery.

From the gynecology examination and Valsalva maneuver, a mass protruded through the hymen was seen from the urogenital hiatus. The mass consists of the anterior, the posterior wall of vagina, and the uterus. The POP Quantification examination result was: Aa +1, Ba +2, C +4, Gh 5, Pb 2, TVL 7, Ap -2, Bp -1, D +2. The Pap smear was negative for Intraepithelial Lesion or Malignancy (NILM). The patient was diagnosed with a cystocele grade III, uterine prolapse grade III, and rectocele grade II. Purandare hysteropexy was selected as a conservative surgical management for this patient. It was done on April 13, 2016 at Karangasem General Hospital, Karangasem, Bali.

Purandare hysteropexy technique started by performing midline incision until fascia was exposed. Next, the fascia was dissected from the surrounding tissue, and a fascia band was made by making a 2 cm transversal incision in the middle of the fascia. Another fascia band was made on the contralateral side. Next step was opening the peritoneum. After evaluating the internal genital organ, the tip of the fascia band was inserted and passing through the peritoneal cavity. The contralateral fascia band was treated in the same manner. The operation continued with creating a bladder flap.

![Figure 1](image_url)

**Figure 1.** (A) Dissecting the fascia, (B) transverse incision in the middle of fascia, (C) the fascia band, (D) penetrating the muscle and peritoneum, (E) inserting the fascia band, (F) creating the bladder flap, (G) the avascular tunnel on broad ligament, (H) inserting the fascia band to the anterior of the uterus, (I) suturing the end of both fascia bands.

The surgery continued by creating an avascular tunnel on both side of broad ligament and pulling the end of fascia band towards the tunnel, to approximate the fascia in front of the uterus, approximately the same level of sacrouterine ligament. Suture the fascia band and combined the end of both end of fascia band on the level of lower uterine segment with polyglactin 0.

Purandare hysteropexy technique ended by doing retro-peritoneal of the bladder flap, evaluating any bleeding and finally suturing each layer of the abdominal wall.
DISCUSSION
In this case report, POP was found in reproductive-age woman with one parity, which was a rare case and not fulfilling the general prevalence of POP. Pelvic organ prolapse was generally found in post menopause age, with high parity number.1,2 One of the main problems was to identify other risk factors that played a role in this patient, in order to prevent the recurrence of POP in this patient after the management was performed.

Various study stated that there are genetic and hereditary factor that causing the weakness of pelvic floor molecularly. There are approximately 10 genes that involve in the pathophysiology of POP, where mostly of those gene was in 9q21 chromosome.3,4 The combination of those genetic variability causes mutation in the collagen and matrix metalloproteinase, and causing deficiency of synthesis and/or degradation of collagen and elastin of pelvic floor structure.4

The second problem in this case was the option of management that can be done upon this patient. She still wants to have another pregnancy in the future, as the result the option of management that can be done was by conserving her uterus.

The management of POP generally divided into two, which are conservative and surgical, where the surgical also can be performed conservatively by preserving the uterus and also radically with hysterectomy5,6. There are various conservative surgical techniques for correcting POP, the selected one was Purandare hysteropexy. This technique was using the native fascia of the patient itself as the media to support the uterus. As the result, any foreign body reaction that usually related with the usage of mesh can be avoided.7

Even though there are other conservative surgical technique for POP, Purandare hysteropexy technique is superior, especially for a young age woman who still wants to have another pregnancy. This technique has a minimal complication during and post-surgery, and has a good prognosis. As a result, the patient still has a chance to get pregnant.

SUMMARY
This study reports a 28-year-old woman with POP grade III, with a history of one parity. It is a rare finding and does not fit the POP epidemiology. There are various studies about the intrinsic factors of POP, such as genetic factor involved in the pathophysiology. However, the gene involved in the pathphysiology still cannot be determined.

A conservative surgical management was done for this patient, Purandare hysteropexy was selected to reconstruct the POP anatomically, with minimal complication during operation, short duration of operation, and also good result from the anatomy and also functionally. A long time follow up is required to monitor the recurrence of POP in this patient. Informing the patient to avoid the POP recurrence risk factor is necessary. The patient should avoid vaginal delivery in hernest pregnancy, and avoid heavy daily activities such as lifting heavy loads.

In the third month after the surgery, there was no POP recurrence. The patient had a normal micturition and defecation, and had less POP anatomical, functional and social complaints.

REFERENCES

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