



## A case report of conservative treatment of pelvic organ prolapse in a 40-year-old pregnant woman

Serveh Parang<sup>1</sup>, Nasrin Soufizadeh<sup>2</sup>

1 Department of Midwifery, Faculty of Nursing and Midwifery, Kurdistan University of Medical Sciences, Sanandaj, Iran

2 Department of Obstetrics and Gynecology, Faculty of Medicine, Kurdistan University of Medical Sciences, Sanandaj, Iran

### Case Report

#### Abstract

**BACKGROUND:** Pelvic organ prolapse (POP) is a rare event in pregnancy. Genital organs' prolapse is multi-factorial and can be caused due to weakness of connective tissue and pelvic support muscles and also nerve damage. The purpose of this study is to report a case of conservative treatment of POP in pregnancy.

**CASE REPORT:** A 40-year-old woman with multiparous at week 17 of pregnancy complaining of heaviness, pressure, and mass protrusion from the vagina was referred to the Sayedolshohadaei Hospital in Sanandaj, Iran. On vaginal examination, Grade 3 prolapse based on Pelvic Organ Prolapse Quantification System (POP-Q) was diagnosed. Conservative treatment with pessary was ordered for her and bed rest was recommended followed by personal hygiene. Her pregnancy ended successfully and no complications happened for the mother and the baby.

**CONCLUSION:** Management and treatment of POP in an individualized and separate approach can be adopted based on the patient preferences. Use of pessary to prevent complications would be useful and can be considered as a noninvasive treatment in consulting patients.

**KEYWORDS:** Treatment; Pelvic Organ Prolapse; Pregnancy

**Date of submission:** 12 Sep. 2020, **Date of acceptance:** 15 Jan. 2021

**Citation:** Parang S, Soufizadeh N. A case report of conservative treatment of pelvic organ prolapse in a 40-year-old pregnant woman. Chron Dis J 2021; 9(2): 81-4.

### Introduction

Pelvic prolapse is the dislocation of one of pelvic organs downwards or forwards from the original location, which indeed means the dislocation of bladder, uterine, and rectum.<sup>1</sup> Although the rate due to pelvic organ weakness is not considerable, this disorder has induced considerable disorders in women and has reduced their quality of life (QOL)<sup>2</sup>, in a way that its direct effect on urinary tract, digestive system, and sexual activity can have an impact on daily activity of women and raise

problems for them, in addition to imposing a lot of costs to their families.<sup>1,2</sup>

Results of different articles demonstrate the high prevalence of pelvic organ weakness among women with or without symptoms.<sup>3-7</sup> Nygaard et al. observed at least one of pelvic organ disorders among 23.7% of women in the United States.<sup>3</sup> In a review study in developing countries, its prevalence has been reported 19.7%.<sup>5</sup> In some studies such as Iran, 68.0 to 81.0% of women have shown at least one of the pelvic organ disorders.<sup>6-7</sup>

The causes of the pelvic organ prolapse (POP) are multi-factorial and include connective tissue weakness, pelvic muscle weakness, and also nerve damage. The most significant reasons can be pregnancy,<sup>1,9</sup> normal vaginal delivery history,<sup>1,8,9</sup> ageing, increase in body mass index

#### Corresponding Author:

Serveh Parang; Department of Midwifery, Faculty of Nursing and Midwifery, Kurdistan University of Medical Sciences, Sanandaj, Iran

Email: serveh.parang@gmail.com

(BMI), hysterectomy history, history of surgery for treating pelvic prolapse, and race.<sup>1</sup>

Genital organ prolapse during the first pregnancy occurs rarely; it occurs once in 10000-15000 pregnancies.<sup>9</sup> Urinary retention, urinary tract infection, cervix infection, bleeding during pregnancy, abortion, and preterm labor can be mentioned as complications of genital organ prolapse during pregnancy.<sup>10,11</sup> During labor because of cervix scar and fibrosis, there is a risk of cervical dystocia and secondary cessation of cervical dilatation.<sup>9</sup>

Albeit the spontaneous vaginal delivery (SVD) in these people occurs as 40-80%, cesarean section (C-section) and assisted delivery (forceps or vacuum) is also prevalent.<sup>9</sup> So far, no care treatment guideline for POP during pregnancy has been designed; hence management and treatment will be via an individualized and discrete approach and decision will be made based on the client's preference and conditions.

### Case Report

A 40-year-old woman with a history of three times of pregnancy and two terms of vaginal delivery, during her week 17 of pregnancy complaining of a mass protrusion from her vagina was referred from Marivan City to Sayedolshohadaei Hospital in Sanandaj, Iran. In the examination, the external os of cervix was closed, with edema, size increase, and a little scratch, but it was not dry. Grade 3 prolapse based on the POP-Q criteria was diagnosed (Figure 1).

Based on the client's statements, she had genital prolapse after the second delivery but she had not performed the proper follow ups. During her current pregnancy along with increase in pregnancy age, the degree of prolapse had increased. However, except for the mass protrusion from her vagina, the patient had no other complaint.

One of the conservative treatments for the management of POP is using pessary.

Pessaries are made of silicon; they are soft and flexible, with no smell, no allergic effect or risk of carcinogenicity. For this patient, a Ring-With-Support-Folding type of pessary in size 5 (Milex, CooperSurgical, USA) was used. Prophylactic antibiotic therapy (single-dose Erythromycin and Cefixime) for treatment of the cervicovaginal infection was prescribed, as well as bed rest in lateral position for two weeks. She was ordered to resume routine daily activities after this period. She was also trained to follow hygienic procedures and have no intercourse in this period.



**Figure 1. Prolapsed cervix of a pregnant woman in week 17**

She was recommended to come to the clinic for monthly control of pessary, which due to the long distance between her living place and the clinic, a follow-up of up to two months was performed, the following caring was not performed, and the follow-up was performed by phone call. The patient had no symptoms indicating urinary tract retention, pain, infection, bleeding, or any other common complaints during pregnancy. Eventually, the pregnancy period was finished successfully and in week 37 of pregnancy she had normal vaginal delivery in Marivan Hospital. She got a son weighing 3100 g with an Apgar score of 9/10, with no complication either for mother

or the baby.

### Discussion

The degree of pelvic damage in pregnant nulliparous women compared to non-pregnant nulliparous women is higher.<sup>9,7</sup> Nygaard et al. noticed that with an increase in the number of pregnancies, the pelvic disorders also increase.<sup>3</sup> In the present patient, POP occurred after several pregnancies. Increase in the degree of prolapse after third pregnancy can be relevant to physiological changes during pregnancy like hormonal changes, especially progesterone and Relaxin hormone impacts that lead to cervix softening and enlarging.

It has been proved that the risk of prolapse enhances with increase in the number of labors.<sup>9</sup> Tegerstedt et al. have reported the main risk factors of POP as ageing and increase in the number of labors; thus prevalence of pelvic disorders in multiparous women was four times more than that in nulliparous ones.<sup>4</sup> In spite of the fact that the patient age was not much, she was suffering from such a severe disorder that most probably it was pertinent to two risk factors of multiparous and several vaginal deliveries.

The patient had the history of a long and complicated labor along with one episiotomy incision in her previous labors. Complicated labor is another risk factor of pelvic disorders;<sup>12</sup> however, in the study by Gyhagen et al., the history of episiotomy, assisted delivery, ruptures and second degree of perineal tears or more severe ones in comparison to SVDs was not concomitant of the risk of symptomatic pelvic disorders.<sup>8</sup> The conceivable reason is that in the study of Gyhagen et al.,<sup>8</sup> only women with a history of one C-Section or normal delivery were checked while the very recent case had the history of two normal vaginal deliveries. In addition, they had studied women with symptomatic pelvic disorders, whereas the current case was suffering from POP with

no symptoms.

This patient was a farmer and had heavy activities like lifting heavy objects in the farm that can be an affecting factor in causing POP. Furthermore, Walker and Gunasekera in their study had reported heavy activity and poor nutrition as risk factors of POP,<sup>5</sup> but assessing the nutrition condition of the current patient was not possible.

In the study by Gyhagen et al., the baby weight at birth and the high BMI of the mother along with height less than 160 cm were considered as risky factors in causing symptomatic pelvic disorders after vaginal delivery.<sup>8</sup> The patients' current BMI was in the group of overweight and she was less than 160 cm tall, but her previous children weighed less than 4000 g. Therefore, she had two more underlying risk factors that made her susceptible to POP. In total, there were underlying risk factors in this patient, including the history of numerous deliveries, vaginal delivery, complicated delivery, episiotomy incision, hard job, heavy activity, high BMI, and short stature, which had eventually intensified POP during recent years.

So far, no standard caring instruction for pelvic organ prolapse during pregnancy has been devised. Management of prolapsed uterine during labor is exclusively decided for each individual depending on the patient's degree of prolapse, age of pregnancy, number of pregnancies, and preference. In these patients, because of weakness in pelvic organs that results in preterm delivery and cervix laceration, unusual labor is prevalent.<sup>9</sup> However, in recent case the pregnant woman delivered in week 37 of pregnancy. It should be noted that controlling the bleeding after labor in patients with POP because of uterine atony is hard because it is not possible to perform hand massage of uterine due to prolapse.<sup>9</sup> But in this case, the amount of bleeding after delivery was normal and eventually there was no complication neither

for the mother nor for the baby.

### Conflict of Interests

Authors have no conflict of interests.

### Acknowledgments

The Marivan and Sayedolshohadaei hospitals that supported us in collecting information in regard to this patient are sincerely appreciated.

### References

1. Berek J. Berek & Novak's gynecology. Alphen aan den Rijn, Netherlands: Wolters Kluwer; 2020.
2. Gholami Chaboki B, Mehrabi Y, Ramezani Tehrani F, Kavousi A. Factors associated to pelvic prolapse in women, weighted logistic regression model in complex sampling studies. *J North Khorasan Univ Med Sci* 2014; 6(1): 117-23.
3. Nygaard I, Barber MD, Burgio KL, Kenton K, Meikle S, Schaffer J, et al. Prevalence of symptomatic pelvic floor disorders in US women. *JAMA* 2008; 300(11): 1311-6.
4. Tegerstedt G, Maehle-Schmidt M, Nyren O, Hammarstrom M. Prevalence of symptomatic pelvic organ prolapse in a Swedish population. *Int Urogynecol J Pelvic Floor Dysfunct* 2005; 16(6): 497-503.
5. Walker GJ, Gunasekera P. Pelvic organ prolapse and incontinence in developing countries: Review of prevalence and risk factors. *Int Urogynecol J* 2011; 22(2): 127-35.
6. Taimoori B, Roudbari M. The prevalence of symptoms of pelvic floor disorders in women that referred to the clinic of gynecology in Ali-ebn-Abitaleb hospital, Zahedan, Iran. *Zahedan J Res Med Sci* 2006; 8(3): 203-10. [In Persian].
7. Direkvand Moghadam A. Investigating on relationship between birth weight and prevalence and severity of pelvic organ prolapse. *Iran J Obstet Gynecol Infertil* 2012; 15(16): 13-9. [In Persian].
8. Gyhagen M, Bullarbo M, Nielsen TF, Milsom I. Prevalence and risk factors for pelvic organ prolapse 20 years after childbirth: A national cohort study in singleton primiparae after vaginal or caesarean delivery. *BJOG* 2013; 120(2): 152-60.
9. James DK, Steer PJ, Weiner CP, Gonik B. High risk pregnancy e-book management options-expert consult. Philadelphia, PA: Elsevier Health Sciences; 2010.
10. Patel S, Roberts S, Rogers V, Zink A, Duryea E, Morgan J. Williams obstetrics. New York, NY: McGraw-Hill Education; 2018.
11. Lo TS, Chen CK, Dass AK, Pue LB, Cortes EF. Spontaneous pregnancy after pessary placement in a patient with infertility and advanced pelvic organ prolapse. *J Minim Invasive Gynecol* 2016; 5(1): 38-40.
12. Guariglia L, Carducci B, Botta A, Ferrazzani S, Caruso A. Uterine prolapse in pregnancy. *Gynecol Obstet Invest* 2005; 60(4): 192-4.