



## An Exceptional Case Of Puerperal Prolapse: Management And Review Of The Literature

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**Abstract :** Uterine prolapse is a common gynecological condition but it is rare during pregnancy and exceptional in the post partum period. We present the case of a multiparous patient with no other risk factor whose physiological delivery was complicated by a puerperal prolapse without delivery hemorrhage. The management consisted of manual reduction and clinical monitoring. The postpartum period was simple and the prolapse resolved with uterine involution. The literature remains poor on puerperal prolapse. The physiopathological mechanisms of gestational or puerperal prolapse are the same. Treatment during pregnancy is as conservative as possible, with vaginal delivery allowed if the cervical dystocia is not major. However, an elective cesarean section is recommended by most teams. Pre-existing prolapse before pregnancy does not always have a favorable outcome. Indeed, laparoscopic surgery during pregnancy or at a distance, or even a per caesarean hysterectomy, are discussed for the treatment of this pathology.

**Key words :** puerperal prolapse, prolapse and pregnancy.

## Introduction:

Uterine prolapse is a form of genital prolapse that occurs when the uterus slips from its place in the vagina. Uterine prolapse in pregnancy is a rare event and may occur during pregnancy or be present prior to pregnancy or, more rarely in our patient's case, complicate a previously physiological delivery. Early recognition is essential to avoid possible maternal and fetal risks. Conservative treatment of these patients throughout the pregnancy and during the postpartum period is possible. The surgical alternative can be proposed at all stages from laparoscopic treatment to per cesarean hysterectomy.

## Case report:

Patient aged 36 years, multiparous with 3 live children, born by vaginal route, eutrophic without notion of instrumental extraction or perineal tear with simple postpartum. She presented to the local maternity hospital at H1 for a rapid home delivery with a notion of abdominal expression, with the birth of a eutrophic female newborn. Natural delivery was performed at the local hospital and then referred to us for further management. She was admitted to our facility at H3 of the delivery. The examination revealed a conscious patient, hemodynamically stable. On gynecological examination, the cervix was externalized (Aa-3 Ba-3 C+4 GH-2 PB-3 TVL-5 Ap-3 Bp-3 D-6 according to the POP-Q classification).(Figure 1) On further questioning, the patient reported a sensation of organ descent after delivery. The medical and obstetric history did not reveal any pelvic trauma, prolapsed mass in the vagina during pregnancy, or stress urinary incontinence. On a practical level, manual reduction of the prolapse was performed using saline-soaked compresses. A good uterine globe was found, without externalized bleeding. A uterine revision and an examination under valves did not reveal any abnormality. An oxytocic infusion was administered for 2 hours. At D1 post partum, the examination did not reveal any recurrence of the prolapse. The patient was declared discharged at D3 postpartum and was seen in consultation at D15 with an unremarkable examination. The patient was contacted by telephone at 2 months and she stated that she had no prolapsed mass in the vagina, and that her postnatal consultation at her local hospital had not revealed any abnormalities.

## Discussion:

Uterine prolapse is a common gynecologic condition but is extremely rare in pregnancy, with an incidence of one case per 10,000 to 15,000 deliveries. The management of pregnancy, labor, and delivery varies considerably. (1) The etiology of uterine prolapse in pregnancy is probably multifactorial. Parity, age, race (white and Hispanic), BMI, and a medical history of prolapse have been found to be risk factors for prolapse. (2)(3) Prolapse that develops during pregnancy is due to the physiologic change of pregnancy causing elongation of the cervix on the one hand, and relaxation of the supporting ligaments on the other. (2) Increased cortisol and progesterone levels during pregnancy may contribute to relaxation of the uterus.(4) During delivery, the pelvic floor is distended due to direct pressure from the presentation. Decreased muscle tone of the elevator of the anus is caused

either by denervation or by direct muscle trauma (mid-lateral episiotomy), resulting in a vulvar hollowness and contributing to the development of POP during the puerperal period. (2) (3) For our patient, in addition to the phenomena described above, the increase in intra-abdominal pressure during labor may have contributed to the utero-vaginal prolapse, as the team of Bezza et al (5) also think.

For prolapse developed during pregnancy, conservative treatment is the gold standard because the prolapse regresses after delivery. Bed rest in the Trendelenburg position is recommended to reduce cervical edema. Good genital hygiene is imperative and local antiseptics should be applied in case of ulcerations or infected cervix. (5) (4) These measures protect the cervix from trauma or desiccation. For example, the team of Eddib et al presents the case of a successful pregnancy in a patient with uterine prolapse existing even before pregnancy. The patient responded to local treatment.(6) This same treatment is recommended by the team of Partsinevelos et al.(7) Transperineal ultrasound and magnetic resonance can be used for the evaluation and quantification of POP(3).

In addition, POP can be successfully managed by pessary throughout pregnancy until the onset of labor. (5) For some teams, vaginal pessaries have been used, but they often fall out after a few days. (4) For others, continuous use of a pessary is recommended until labor begins. It has also been suggested that a pessary in the first stage of labor may prevent cervical dystocia and the need for Dührssen incisions of the cervix to facilitate delivery.

If conservative solutions fail, a laparoscopic approach to uterine suspension in early gestation has been reported. (4) Minimally invasive surgery in the pregnant patient can therefore be considered. This is the modified Gilliam suspension. This approach has been progressively accepted because an increasing number of reports published over the last decade testify to its safety(3).

Uterine prolapse during pregnancy can cause antepartum, intrapartum, and puerperal problems. Antepartum complications include preterm labor and spontaneous abortions in cases of prolapse prior to pregnancy. Urinary tract infection and acute urinary retention have also been reported (2) (4). Resistance of the cervix to dilate can lead to rupture at the lower uterine segment, fetal death, and maternal morbidity. Postpartum hemorrhage due to uterine inertia remains a common consequence of prolapse after delivery. (3)

The case reported by the team of Bezza et al describes a successful vaginal delivery (5). Similarly, the team of EDDIB et al advocates vaginal delivery and assumes that prolapse resolves in the third trimester without treatment (6).

Women with severe prolapse are at increased risk for cesarean section due to dystocic labor. Primary cesarean section is an option for severe POP because it appears to be protective against prolapse after delivery (5) This would also explain the possible protective effect of cesarean section in patients with acute POP during pregnancy and not in those with POP before pregnancy (2) Induction of labor with misoprostol and oxytocin should be avoided. Manual pressure of the fundus to increase expulsion efforts during

labor may aggravate uterine prolapse. Most authors recommend conservative management during pregnancy followed by elective cesarean section.(3) The team of Partsinevelos et al also reports elective cesarean section to ensure an uneventful delivery.(7) The alternative option of per cesarean hysterectomy with suspension of the vaginal flange to the pelvic periosteum has been described. (4)

The post-partum period did not reveal any recurrence in our patient. The teams of Daskalakis and Al and Guariglia and Al also describe a complete resolution of the uterine prolapse in the post partum period.(4,8) Indeed, the prolapse persists in patients with a prolapse before pregnancy, but resolves spontaneously in those who develop it during pregnancy. (2) To palliate this recurrence, the team of Hassine and Al proposes the vaginal pessary ring. This was inserted two days later to control the prolapse during the involution period. After 6 months, the uterine prolapse disappeared.(9) In women with severe irreversible uterine prolapse, a caesarean hysterectomy may be considered, followed by suspension of the vaginal cuff at the periosteum covering the sacral promontory. (3) Finally, a recurrence of the prolapse could lead to discussion of a vaginal hysterectomy, an anteroposterior repair, and fixation of the sacrospinous ligament a few months later. (6)

## Conclusion

Puerperal prolapse remains a rare pathology and the treatment is not codified. However, conservative treatment remains the best option. Its prevention would be based essentially on a reduction of the workload and the avoidance of lifting heavy objects during pregnancy and the post-partum.



Figure 1 : Photo of the puerperal prolapse taken at the admission of our patient

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