

UTERINE PROLAPSE IN PREGNANCY: A CASE REPORT AND REVIEW OF LITERATURE

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Abstract

Uterine prolapse in pregnancy is a rare occurrence associated with significant complications. It is usually best managed conservatively with bed rest and use of appropriate pessary. This is the first reported case that has demonstrated the effectiveness of a Gellhorn pessary in restoring the prolapse till labour, along with a review of various other pessaries in literature. When considering the mode of delivery, obstetricians should look out for cervical inflammation and oedema associated with the uterine prolapse which may complicate an otherwise normal vaginal delivery.

INTRODUCTION

Uterine prolapse that occurs during pregnancy is a rare condition. Fewer than 300 cases have been reported in the literature, mostly before the 1970s. Previous estimates have put the incidence of uterine prolapse in pregnancy at 1 in 10 000-15 000 deliveries worldwide.⁴

It is hypothesised that the descent of the uterus is initially associated with prolongation of the cervix followed by descent of the body of the uterus.³

Although a rare occurrence, there is still a need for obstetricians to be aware of the management of uterine prolapse which allows for an uneventful pregnancy, labour and delivery. Currently, there is no clear guidance on the management of this condition.

Here we present a case of a lady who developed uterine prolapse during pregnancy and the issues surrounding her management, which ultimately led to a successful and uneventful vaginal delivery.

CASE REPORT

A 26 year old Indian lady gravida 4 para 2, was admitted in her 27th week of pregnancy for management of uterine prolapse in pregnancy. Her two children were aged four and two and were born via normal vaginal deliveries, weighing 2.7kg and 2.8kg respectively. She had no history of uterine prolapse prior to the current pregnancy. In the 12th week of gestation, she noticed a protrusion from her vagina. She had no other symptoms and her voiding was normal. She was

able to reduce the protrusion regularly. In the 27th week of gestation, she presented with uterine contractions. The os of the prolapsed cervix was closed and elongated. At maximal straining, the prolapse was approximately 2 cm below the level of the hymen. Her contractions were successfully inhibited with IV salbutamol and she was discharged with a vaginal ring pessary.

Two weeks later, she developed acute retention of urine. The ring pessary had fallen out and the prolapse had returned. After initial transurethral catheterization to relieve the urinary retention, Mrs SS had a gellhorn pessary fitted to reduce the prolapsed cervix. This helped to reduce the prolapse and thus maintained normal voiding. Mrs SS was discharged and advised to have plenty of bed rest.

At 37 weeks of gestation, a viable male infant weighing 2.6 kg was delivered vaginally following rupture of membranes. She progressed well in labour. No prolapse of the uterus or cervix was noted during the second or third stages of labour. The placenta was delivered spontaneously. The prolapse returned postpartum and a vaginal ring pessary was inserted two days later to control the prolapse during the period of involution.

DISCUSSION

Literature review of uterine prolapse in pregnancy describes clinical features of pelvic pressure, lower back pain, urinary tract symptoms (e.g. acute retention, incontinence), cervical inflammation and cervical mucosal ulcerations. Similarly, complications reported range from patient discomfort,

cervical desiccation and ulceration, urinary tract infection, acute urinary retention to miscarriage and even maternal death¹.

Traditional Chinese methods of treating prolapse involved the Chinese Native doctors saturating the protruding portion of the cervix with kerosene oil and setting fire to it. The resulting dense scar tissue of the cervix required multiple incisions to deliver the babies with forceps.¹ Undeniably, we have come a long way in the management of uterine prolapse coincident with pregnancy.

The prolapsed uterus is usually managed by reducing the prolapse and bed rest in a slight Trendelenberg position. These methods have shown to protect the cervix from trauma and desiccation and decrease the incidence of preterm labour.⁵ This has been widely recommended in several papers, including Piver and Spezia⁹ and Daskalakis et al.¹

After reduction is accomplished, authors such as Sawyer⁸ and Piver & Spezia⁹ recommend placement of a well-fitting lever or doughnut pessary, which will often allow the patient to continue with the pregnancy without much trouble.¹ The following table shows a comparison of papers which discussed the use of various vaginal pessaries to treat uterine prolapse during pregnancy.

Figure 1

Ref no, author, year	Pessary used	Indication	How it works	Comments
Piver & Spezia ⁹ 1968	Doughnut 	Second and third degree uterine prolapse	It is inflated by a bulb and valve assembly and occludes the upper vagina to support a uterine prolapse. Protect cervix from local trauma of protrusion.	<i>Restored prolapse</i> <i>Recommended that large doughnut should be inserted and left in place until the onset of labour.</i>
Sawyer ⁸ 2000	Lever pessary (Hodge) 	Mild uterine prolapse with retroversion	Broad anterior limb of Hodge prevents pessary from turning and precludes pressure on urethra.	<i>Restored prolapse.</i> <i>Concluded that largest lever pessary should be fitted and left in place until the onset of labour.</i>
Daskalakis ¹ 2007	Lever pessary (Hodge)			<i>Also effectively restored prolapse till labour.</i>
Vogel ⁴ 2001	Ring 	First and second degree uterine prolapse	Fitted into posterior fornix and supports displaced uterus.	<i>Fell out after a few days of overlying into patient.</i>

Figure 2

Current case report, Mrs SS 	Gellhorn	Second or third degree uterine prolapse	Concave surface of pessary sits 90° to the vaginal axis, either the cervix or vaginal vault. Stem prevents turning the support within vagina, so able to keep even large prolapse in place by means of a comparatively small size pessary Exerts a suction effect that helps pessary retention.	Requires a capacious vagina so that the base is broad enough to rest above levators.
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However, in this case with Mrs SS, a well-fitting Gellhorn pessary was successfully placed, after a trial of the easily available ring pessary failed to work. The suction action and bulkier nature of the Gellhorn type promised to aid with pessary retention, although it was noted that it would also be difficult for both the patient and the doctors to remove it at a later time. Mrs SS accommodated the Gellhorn pessary well and her prolapse was efficiently restored till the time of delivery, and she did not complain of any difficulties with the pessary. Effective restoration of the prolapse with Gellhorn pessary also contributed to preventing further episodes of urinary retention as a sequela of the prolapse.

The mode of delivery is also a concern in this case. It is apparent that over the years, normal vaginal deliveries have increased and the need for forceps has decreased.⁹ Literature review shows that the majority of women are delivered by normal vaginal delivery.

Uterine prolapse coincident with pregnancy & mode of delivery (1968-2008)

Figure 3

Author & ref no	Year	No of patients	Delivery	Infant	Complications
Piver MS & Spezia J ⁹	1968	8	SVD SVD SVD C.section (emergency)	Alive Alive Alive Alive	Cervix & 3 rd perineal lacerations Cervical lacerations Cervical lacerations 2 nd inertia; puerperal endometritis
Lavery JP ¹²	1973	1	SVD	Alive	Prolonged labour
Hill FS ³	1984	1	SVD	Alive	PROM
Brown HL ⁸	1997	2	SVD SVD	Alive Alive	Preterm labour Preterm labour + PROM
Matsumoto ⁷	1999	1	SVD	Alive	0
Sawyer D ⁸	1999	1	SVD	Alive	Induced labour at 40+1 weeks
Vogel Y ⁴	2003	2	C. section (elective) C. section (elective)	Alive Alive	Cervical lacerations, desiccations + oedema Cervical lacerations, desiccations + oedema
Guariglia L ²	2005	1	SVD	Alive	0
Daskalakis G ¹	2007	1	C. section (elective)	Alive	0
Fartinsavelez GA ³	2008	1	C. section (emergency)	Alive	0

However, it is essential for the obstetrician to look out for the presence of cervical inflammation or oedema which may

complicate a vaginal delivery, especially if there is inadequate time for sufficient antepartum treatment. Daskalakis¹ in 2007 suggested elective Caesarean section near term to avoid further pelvic floor damage, especially where the cervix is oedematous and elongated. Therefore, obstetricians need to look out for these complications in a timely manner. If there are no such complications the decision ultimately lies with the patient.^{1,2}

CONCLUSION

Uterine prolapse in pregnancy is a rare occurrence and best managed conservatively. This is usually attained with bed rest and placement of an appropriate pessary. This is the first reported case that has demonstrated the effectiveness of a Gellhorn pessary in restoring the prolapse till labour. When considering the mode of delivery, obstetricians should look out for cervical inflammation and oedema which may complicate an otherwise normal vaginal delivery.

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