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Case Report

A successful pregnancy outcome following embolisation for post modified Manchester Fothergill haemorrhage: an interesting case report

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ABSTRACT

Genital prolapse is one of the most common disorder affecting women of varying age group; though it typically affects older and parous women. Malfunction of the pelvic support is the most common cause of this disorder. Increasing age and excess weight are established risk factors for pelvic organ prolapse. In young nulliparous women conservative surgery is preferred to preserve the fertility of the patient. The approach of surgery can be either vaginal or abdominal depending on the classification of prolapse. We reported a rare case of a 36-year-old P1L0 (IUFD1) A1 with cervical elongation who was apprehensive to have a child. She was managed at our institute and had a successful pregnancy outcome in spite of undergoing embolization for secondary haemorrhage following modified Manchester-Fothergill operation.

Keywords: Pelvic organ prolapse, Cervical elongation, Manchester Fothergill

INTRODUCTION

The Manchester operation is an additional fertility-sparing surgical approach to treatment of pelvic organ prolapse associated with cervical elongation which was first performed in 1888 by Dr. Archibald Donald of Manchester, England.[1]

A high degree of acceptance or satisfaction and a low morbidity rate of this surgery make it a good option. Although minor complications like infection, hematoma and voiding difficulty have been reported, major complications are postoperative bleeding and cervical stenosis.[2] We presented here a case, with stage 3 prolapse as per POPQ classification due to elongated cervix who developed secondary haemorrhage following modified Manchester Fothergills repair on third post-operative day which was managed with the help of interventional radiologist conservatively. She conceived after one year of surgery, was ANC registered and delivered eventually with us.

CASE REPORT

36 years old, P1IUFD1A1 presented to the gynaecology outpatient department with something coming out per vaginum since 5 years which was smaller to start with but increased in size gradually. It was not associated with any menstrual, bowel or bladder complaints. There was no history of chronic cough or constipation or any other medical or surgical illness in the past. She was married since 7 years, had one abortion 6 years back and full term vaginal delivery of Still birth female child (3 kg) around 5

years back in village hospital setup, details of which were not available. Detailed history taken was not suggestive of Induction of labour, prolonged labour, or instrumental delivery. Her menstrual cycles were regular, every 28-30 days, in which she would bleed for 3-4 days and was not associated with pain. General and systemic examination revealed no significant abnormality. She had central obesity with BMI 27 kg/cm^2. Per speculum gynaecologic examination revealed bulky, but healthy, cervix protruding out of the introitus. Uterocervical length was 5 inches (12.5 cm) and estimated cervical length was 3 inches (7.5 cm) with taut Mackenrodt and Uterosacral ligaments. Point C was +3.5 cm and Point D was- 7 cm with cervix being the leading point, diagnosis of stage 3 prolapse as per POPQ system of classification was made. On Bimanual examination the uterus was retroverted, normal sized, bilateral fornices were free. Pap smear was normal and Ultrasonography of abdomen and pelvis revealed no abnormality

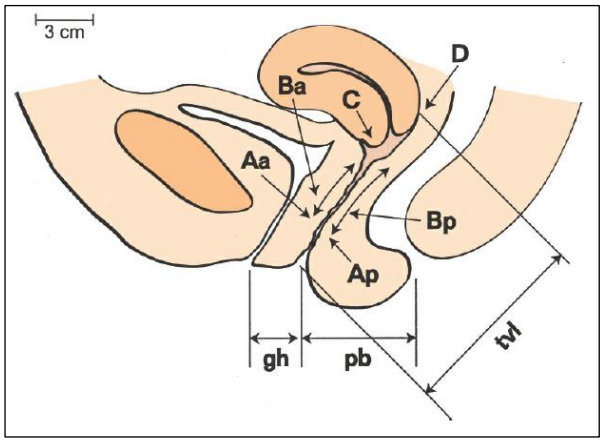

Figure 1: Anatomy.

Note: Aa- Anterior wall; Bb- anterior wall; C- cervix or cuff; gh- genital hiatus; pb- perineal body; tvl- total vaginal length; Ap- posterior wall; Bp- posterior wall; and D- posterior fornix.

Table 1: POPQ classification of the patient as represented in tabular form.

POPQ classification		
-3	-3	+3.5
+5.5	+3	+8
-3	-3	-7

Owing to her desire to preserve fertility and menstrual functions; after thorough counselling and taking fitness from Anaesthesia team for surgery. She was posted post menstrually for modified Manchester Fothergill procedure. Patient and her husband were explained and counselled about the procedure and associated complications like infection, haemorrhage; future pregnancy complications like abortions and preterm delivery. After obtaining Informed consent, Procedure was done under Regional Anaesthesia. After thorough examination and confirming the cervical length, cervix was dilated, vaginal flaps and vesico- cervical space was created and about 5cm of cervix was amputated after ligating the descending cervical arteries. The raw edge of the cervix was covered with vagina by Sturmdorf sutures. She was put on broad spectrum antibiotics. Immediate post operatively patient was vitally stable and urine output was adequate.

On postoperative day 3, she complained of bleeding pervaginum with soakage of 2 pads fully over 3hours. On examination she had tachycardia with pulse rate of 126 beats per minute; blood pressure was 100/70 mmHg. Systemic examination revealed no abnormality and on per speculum examination diffuse oozing from suture site was noted. Her emergency investigations were sent and blood was kept ready. After communication with interventional radiologist, she was shifted for CT angiogram to locate for any active site of bleeding. CT angiogram revealed active blush around the uterine arteries on the left side and small blush around the vaginal arteries of the right side. After taking consent; embolisation of left uterine artery and right sided vaginal artery branches was done. Post procedure she was transfused with one pint whole blood and continued on IV antibiotics and analgesics. She was discharged two weeks post embolization. After 1year patient missed her periods and turned out UPT positive. She was registered in the antenatal clinic and had a regular follow up. She was admitted for safe confinement at 35 weeks and underwent an emergency LSCS at 36.5 weeks for Breech presentation in labor. Baby was female child of 2.3 kg cried immediately after birth was kept with mother and discharged after 7 days.

DISCUSSION

The length of the cervix is about 2.5 cm with the vaginal and the supravaginal parts being of equal lengths. The cervical elongation may affect either part. The long axis of the cervix is rarely the same as the long axis of the body of the uterus, due to antiflexion or retroflexion[1]. Most commonly, the elongation of the supravaginal part is associated with the uterineprolapse. Infra-vaginal elongation tends to be congenital in origin. Elongation of supravaginal part is due to the strain imposed by the pull of the cardinal ligaments to keep the cervix in position, along with the weight of the uterus making it fall through the vaginal axis.[2]

Some women may have no symptoms of a prolapsed cervix, especially if it is minor. If symptoms do occur, they may include a feeling of pressure in the vagina, pain during sex, problems urinating or backache. Women with severe cases may also feel or see the uterine tissue coming out of the vaginal opening. Less severe cases may be managed conservatively by Keigel's exercises which helps strengthen the weakened pelvic floor, weight loss to reduce the strain on the muscles and vaginal pessary inserted into the vagina to help hold the cervix and uterus in place.[4] Failure of conservative treatments warrants the need for surgery to repair the weakened muscles. This is

quite challenging in those women who want to preserve their uterus and more so, in those young patients who want to conceive. The Manchester Fothergill procedure is fertility-sparing surgical approach to treatment of pelvic organ prolapsed.[5]

However, this operation involves near-complete amputation of the cervix, leaving behind a small stump that is prone to dysfunction and future cervical incompetence, defeating the very purpose of procedure. The incidence of spontaneous miscarriages, cervical dystocia, cervical tears, incomplete rupture of uterus and secondary infertility is increased. Further, pregnancies that do occur are associated with high chances of operative delivery and caesarean sections.[6]

The Manchester operation is a procedure that involves excision of the cervix and suture of the cervical stump to the cardinal ligament. Since the Manchester operation maintains the uterine body, it seems effective in correcting uterine prolapse caused by true cervical elongation. In contrast, the Sleeve operation, was devised because, it was considered that amputation of cervix in the Manchester repair significantly hampered future fertility.[7] Manchester repair should be preferred in women who are multiparas, and it is unlikely that many wish to conceive again. Sleeve operation is superior to the Manchester repair in maintenance of fertility and the ability of the woman to have a normal vaginal delivery as the cervix remains anatomically intact and will not hinder future pregnancies.[8-10] In the above discussed case, the case of genital prolapse was successfully treated by Manchester repair but the case faced the most common major complication that is post-operative bleeding. This complication was effectively managed with embolization of uterine artery, preserving the patient's fertility. The spontaneous conception and uneventful delivery applauds the effectiveness of the Manchester repair for treating genital prolapse and use of interventional radiology to treat a dreaded complication.

CONCLUSION

The Manchester Fothergill procedure is fertility-sparing surgical approach to treatment of pelvic organ prolapsed. However, this operation is associated with postoperative bleeding and cervical stenosis as major. A multidisciplinary care can effectively manage these complications conservatively giving woman the autonomy for a safe future child birth

This interesting procedure, though done uncommonly, is worth considering, in the appropriately selected patient. Reporting of such cases in literature, by means of publications, is encouraged, to study it further. Perhaps, it could become the treatment of choice, for women with cervical elongation, interested in retaining their uteri, either for future fertility or otherwise!

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