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Case Study
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INDUCED MID TRIMESTER TERMINATION OF PREGNANCY IN A PATIENT WITH PREVIOUS FOUR CESAREAN SECTIONS – A CASE REPORT

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ABSTRACT
The rate of cesarean sections is increasing worldwide and when patient with previous multiple cesarean sections approach for termination of pregnancy; obstetricians are being challenged to tackle the situation with scarred uterus. There is no safest proved method of medical termination of pregnancy in such patients. Furthermore, uterine rupture is a known complication. This case report presents our experience with the use of Foleys catheter with intravenous oxytocin for the management of second trimester medical termination of pregnancy in patient with previous four cesarean sections and ligation failure. The known techniques and drugs used in this case were successful; however, further studies are needed for better understanding of the technique used in such cases, considering the gestational age. In addition to this efficacy, complications, and side effects must be taken into account.

KEYWORDS: Termination of Pregnancy, Vaginal route, previous four Cesarean Sections, Foleys catheter, oxytocin.

INTRODUCTION
The rate of cesarean sections is increasing worldwide and when patient with previous multiple cesarean sections approach for termination of pregnancy; obstetricians are being challenged to tackle the situation with scarred uterus.[1] This becomes more difficult in cases of previous multiple cesareans and moreover, in such cases there are meager experiential studies available. There is no safest proved method of medical termination of pregnancy in such patients. Uterine rupture, haemorrhage and hysterotomy or hysterectomy remains uncommon and inevitable complications of any termination method used in second trimester pregnancy.[2]

Since, last few decades, termination of pregnancy in second trimester of the patients with previous cesareans, mostly surgical procedures were preferred, but constant developments in medicine have swapped risky surgical practices with harmless and more effective methods. Such several works laid the different approaches of labor induction when the cervix is unfavorable, including misoprostol, Foley's catheter, double-balloon catheter, laminaria tents, and use of oxytocin.[3] This case report presents our experience with the use of Foleys catheter followed by intravenous oxytocin for the management of second trimester miscarriage in patient with previous four cesarean sections and operated earlier for tubal ligation.

CASE REPORT
A 26-year-old patient, gravida 5 para 4 living 4, with four months of amenorrhea approached to health center with Tubal Ligation failure and demanding Medical Termination of Preganancy. Patient was 18.5 gestational weeks by the last menstrual period and 18 gestational weeks by the ultrasound. She was married for 10 years and her previous obstetric history was significant for four lower segment cesarean sections (LSCS). She also underwent tubal ligation 1.5 years back during her fourth cesarean section. Clinically, her uterus was 18-20 weeks in size and was externally ballotable. Previous LSCS scar showed no signs of tenderness and patient was healthy otherwise. Pelvic trans-abdominal ultrasound was requested to rule out Placenta accreta spectrum and measure scar thickness. All laboratory findings were within the normal ranges. Patient was counseled regarding conservative and surgical management options and the associated risks and benefits were discussed. Accordingly, a conservative plan of termination of pregnancy was planned after taking consent of patient and her relatives.

After reserving two units of blood, antibiotic coverage was started with injection Cefosulbactum 1gm IV 12 hourly and injection Metronidazole 100 cc IV 8 hourly. Mechanical induction of labour was initiated using 18 Fr Foley's catheter with balloon filled with 30 cc Normal saline. After twenty-four hours, a repeat induction was done using 22 Fr Foleys catheter using 80 ml normal

saline. The catheter was kept in situ for another 24 hours after which it was expelled. Following this, injection Oxytocin 1 IU in 500 ml normal saline with rate of 8 drops/min was started intravenously and was titrated hourly up to 6 IU. Patient started experiencing pain and was judiciously monitored for any signs of scar rupture.

Patient was vitally stable. Her vaginal examination revealed a 4 cm dilated cervical os, and abortus was felt in the vagina. The fetus weighing 600 gm was aborted vaginally and 20 unit of oxytocin infusion was started. Twenty minutes later, placenta was completely delivered with membranes. The estimated blood loss was 200 ml. Patient was vitally stable all through with no extra bleeding. The following day, patient was stable with minimal vaginal bleeding and the repeated complete blood count (CBC) was normal; prophylactic antibiotics were continued on day 2 post abortion. Post-abortion USG showed no signs of any scar dehiscence or rupture, Uterus contours were regular and there was no free fluid in abdomen. The patient was discharged home with tablet amoxicillin– clavulanate 625 mg every 12 hours orally for 7 days and contraceptive counseling. Follow-up appointment was scheduled after 6 weeks for laparoscopic tubal ligation.

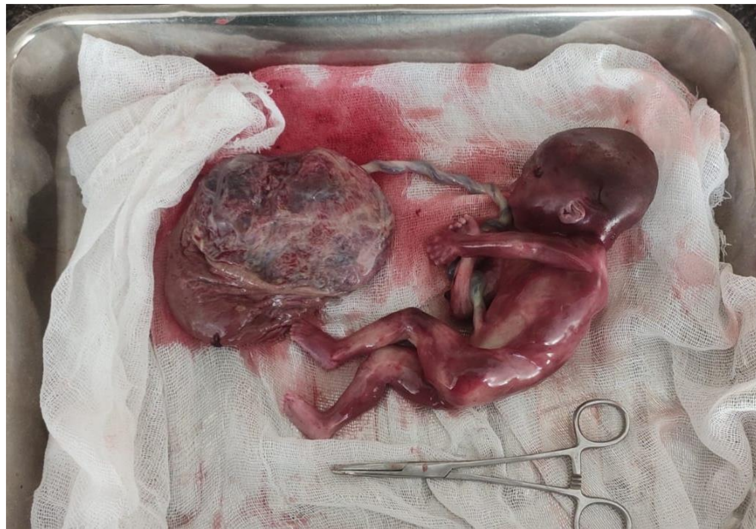

Fig.1: Abortus with completely expelled placenta.

DISCUSSION

Methods for induction of labour in an unfavorable cervix are more or less categorized into either pharmacological or mechanical methods. Lalitkumar *et al, 2007*, has provided a detailed review of the current literature on mid-trimester methods of abortion with respect to efficacy, side effects and acceptability which gives a lead to further studies.[3] These have been used effectively for termination of pregnancies in patients with previous cesareans. Several reports of termination of pregnancy for the patients with previous cesareans have been reported by using different doses various drugs and methods.[4] According to, Sarah Arrowsmith, et. al. 2010, oxytocin, prostaglandin and their synthetic derivatives are the commonly used medications which act on the pregnant uterus as stimulants.[5]

Foley's catheter method can be used for mechanical induction of labour in patients with previous cesarean sections. It involves transcervical insertion of Foley's catheter which applies pressure on the internal cervical os, stretching the lower uterine segment and increasing local prostaglandin production. There is a lack of compelling evidence suggesting increased risk of uterine rupture because mechanical devices can also be readily removed when needed and are stable at room temperature.[8] Some reports cautioned against mechanical methods of cervical ripening or induction of labour because of the perceived increased risk of infection. But, Jozwiak *et al* report no evidence of increased infection for either mothers or babies.[9] Amina Nagy Elasy *et. al.* has also studied the efficacy of intracervical Foley's catheter with intravenous oxytocin infusion successfully for abortion in cases of previous cesareans.[21] Some more noticeable studies over use of Foley's catheter using different drugs for abortion through vaginal route have also been published.[10]

Oxytocin is the better pharmacologic agent for induction of labor when the cervix is favorable. Numerous studies have focused on the use of oxytocin in labor induction and have been found that various doses of oxytocin as per requirement are effective in establishing adequate labor patterns.[6] However, some reports suggests that use of any drug without proper study of patient and inappropriate doses can lead to rupture of scarred uterus.[7]

This case report presents our successful experience of mid trimester medical termination of pregnancy in patient with previous four cesarean sections using Foleys catheter, followed by intravenous oxytocin. It creates a platform for further studies on the subject.

CONCLUSION

As per the literature consulted, there are no published reports unfolding the consequences induction for second trimester vaginal abortion in women with previous four cesarean sections and ligation failure. The methods and techniques used in this case were successful; but, further studies are needed for better understanding of the technique used in such cases, considering the gestational age. In addition to this efficacy, complications, and side effects must be taken into account.

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