

Successful Twin Pregnancy Outcome after Laproscopic Cerclage In Patient With Cervical incompetence – A Case Report

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INTRODUCTION/OBJECTIVE

Laparoscopic transabdominal cervicoisthmic cerclage (LTCC) offers a less invasive alternative to conventional transabdominal cerclage and is typically recommended for individuals diagnosed with cervical insufficiency.¹ Few cases have been reported on Laproscopic Transabdominal Cervicoisthemic Cerclage (LTCC) performed during pregnancy in twin gestation. We believe this is the first reported case of a successful twin pregnancy following pre-pregnancy Laparoscopic Transabdominal Cervicoisthmic Cerclage (LTCC) in a patient with a history of failed vaginal cerclage during a previous twin gestation. Although one prior case has been reported of a successful twin pregnancy after pre-pregnancy LTCC, that patient had a septate uterus and underwent concomitant metroplasty, making cervical insufficiency an uncertain contributor to preterm labor.¹ Our case is unique in that cervical incompetence was the likely primary factor, without confounding uterine anomalies.

CASE REPORT

A 29-year-old patient with a history of infertility conceived a twin pregnancy via in vitro fertilization (IVF). A high vaginal cerclage was placed at 14 weeks gestation; however, she experienced pregnancy loss at 24 weeks. Subsequently, she underwent two unsuccessful single-embryo transfers. Given the history of failed vaginal cerclage and suspected cervical insufficiency, the patient underwent a pre-pregnancy laparoscopic transabdominal cervicoisthmic cerclage (LTCC) using Mersilene tape. She later conceived twins following a double embryo transfer. Cervical length was closely monitored throughout the pregnancy. Her cervix remained longer than 3cm and closed till term. Her cervical length as per surveillance scans was as follows:

- 10 weeks: 3.5 cm
- 15 weeks: 4.0 cm
- 22 weeks: 3.7 cm
- 28 weeks: 3.5 cm
- 32 weeks: 3.5 cm
- 35 weeks: 3.5 cm

The patient underwent an elective cesarean section at 37 weeks with successful delivery of both twins. The cerclage was left in situ for potential future pregnancies.

DISCUSSION

With increasing use of ART for conception, more and more cases with multiple pregnancy are seen in clinical practice now. Few cases have been reported on Laproscopic Transabdominal Cervicoisthemic Cerclage (LTCC) performed during pregnancy in twin gestation. Pre-pregnancy LTCC is effective in preventing preterm birth in twin pregnancies with previous history of twin mid-trimester loss. This case highlights how the length of the cervix was conserved despite a well growing twin pregnancy.

CONCLUSION

There has been considerable research on the efficacy of laparoscopic transabdominal cervical cerclage (LTCC) versus vaginal cerclage, both during and prior to pregnancy.. This case report is the first with successful twin pregnancy outcome after LTCC on a patient with history of cervical incompetence in previous twin gestation despite vaginal cerclage. Close cervical length surveillance throughout the pregnancy demonstrated the efficacy of the LTCC. This should be followed by a case series in which multiple patients undergoing the same intervention are assessed for outcomes. Future research should also compare the efficacy of high vaginal versus laparoscopic cerclage in preservation of cervical length specifically for twin gestations.

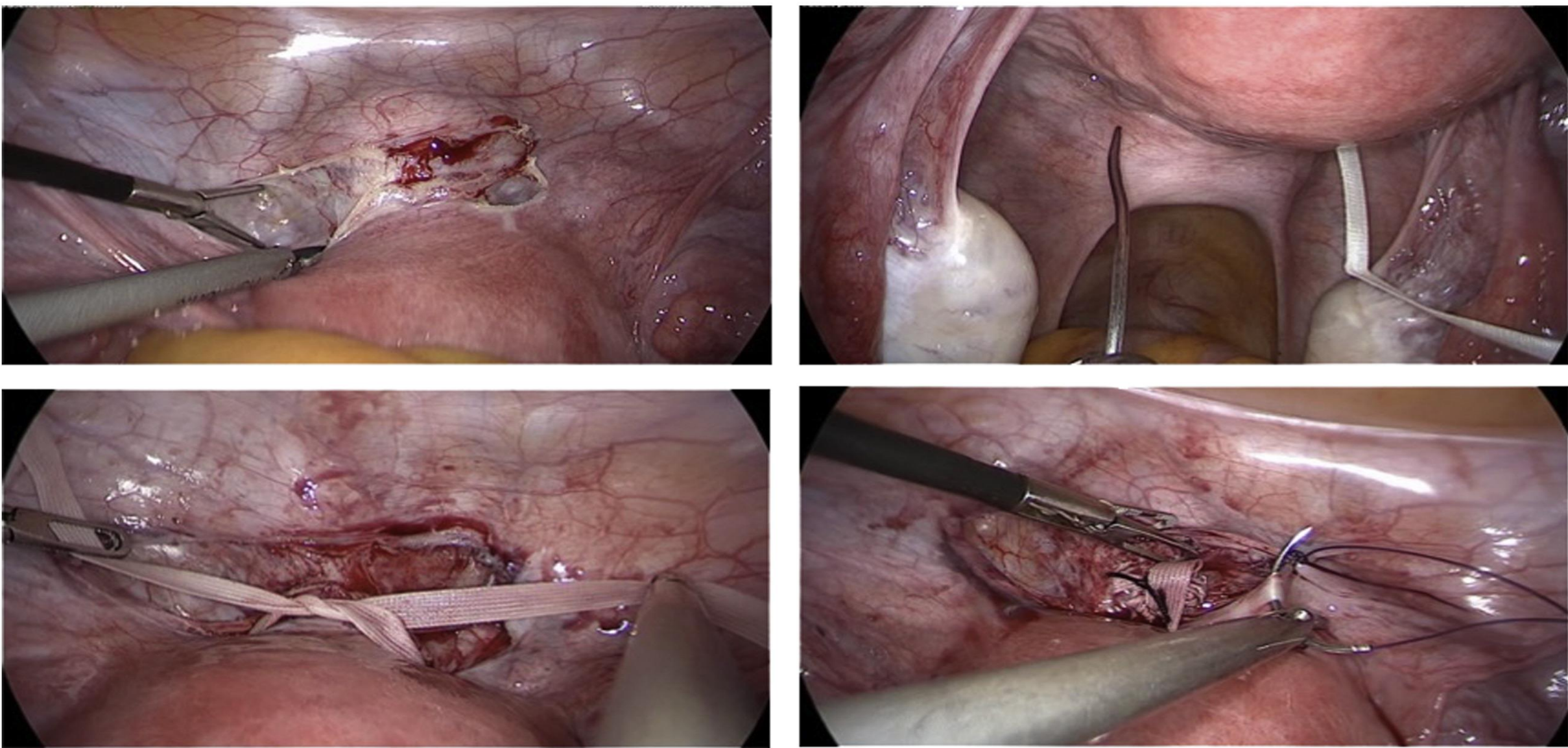


FIGURE 1: Laparoscopic abdominal cerclage technique. Top left: Opening the peritoneum to reveal the cervicoisthmic junction. Top right: Inserting a straightened needle of the double-arm Mersilene polyester tape at the internal cervical os. Bottom left: Securing the cerclage knot anterior to the cervix. Bottom right: Closing the overlying peritoneum. Clark. Laparoscopic abdominal cerclage. Fertil Steril 2020.²

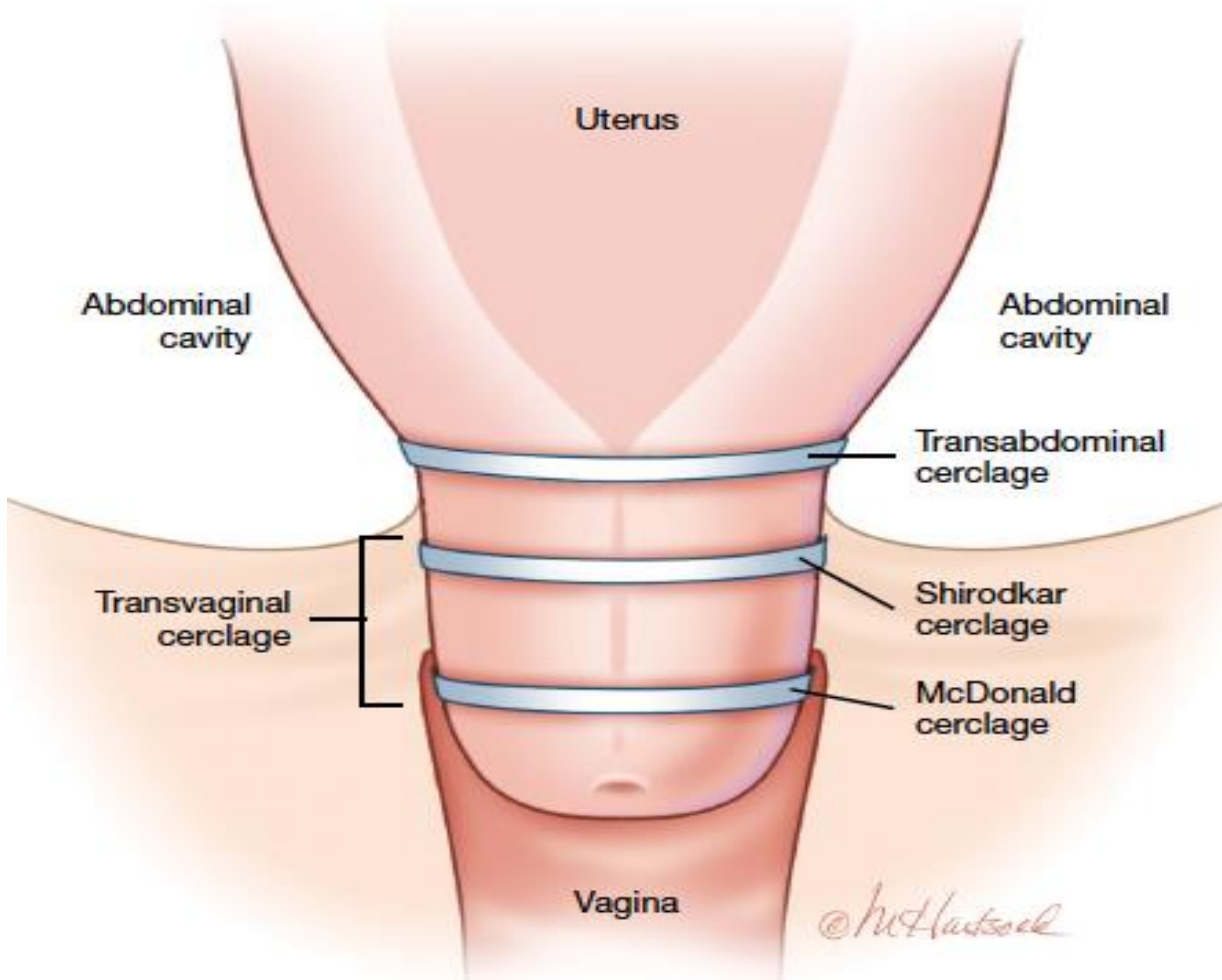


FIGURE 2: Suture placement in Transvaginal and Transabdominal Cerclage procedures.³

REFERENCES

