Z.S.O.G

ZIMBABWE SOCIETY OF OBSTETRICIANS & GYNAECOLOGISTS

Transabdominal Cerclage for the management of recurrent second trimester pregnancy loss- A Case Series

Dr Rumbidzai Majangara

Reproductive Endocrinologist

Holiday Inn Bulawayo 23 October 2024

ZSOG

ZIMBABWE SOCIETY OF OBSTETRICIANS & GYNAECOLOGISTS

Introduction

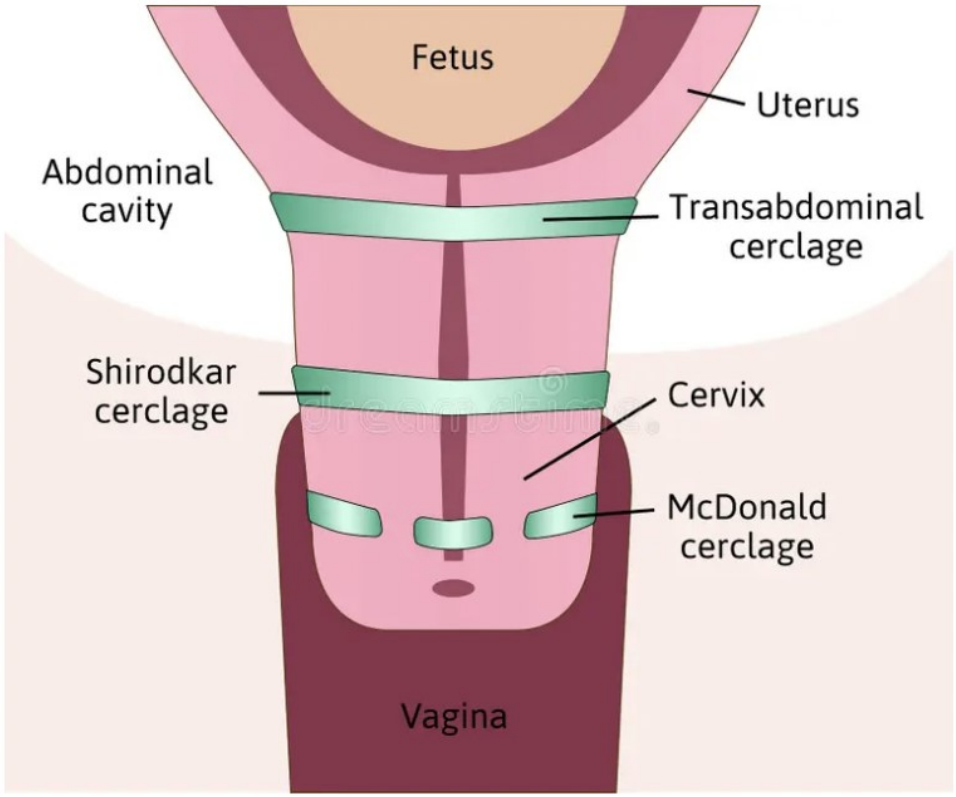
- Cervical insufficiency is estimated to affect 1% of all pregnancies and accounts for up to 8% of recurrent second trimester pregnancy losses.
- Cervical cerclage, when given to the right women with cervical insufficiency, can prevent preterm birth and second-trimester fetal losses
- Indications for Cervical cerclage:
  - History-indicated cerclage for women who have had ≥3 preterm deliveries and/or mid-trimester losses…
  - Ultrasound-indicated cerclage for women with a cervical length <25 mm if they have had ≥1 spontaneous preterm birth &/ mid-trimester loss
  - Rescue Cerclage
  - An abdominal cerclage is indicated for women:
    - Who have had a failed vaginal cerclage (delivery before 28 weeks after a history or ultrasound-indicated [but not rescue] cerclage)
    - When it is not possible to insert a vaginal stitch due to previous severe trauma of the cervix ie- amputated or severely shortened or injured cervix following a difficult previous child birth or cone biopsy

Shennan etal, **FIGO Good Practice Recommendations on cervical cerclage for prevention of preterm birth**. Int J Gynecol Obstet 2021

ZSOG

ZIMBABWE SOCIETY OF OBSTETRICIANS & GYNAECOLOGISTS

Types of Cervical Cerclage



ZSOG

ZIMBABWE SOCIETY OF OBSTETRICIANS & GYNAECOLOGISTS

MAVRIC:A Multicentre Randomised Controlled Trial of Transabdominal Versus Transvaginal Cervical Cerclage (Shennan,et al, 2020, AJOG)

- **P**: History of spontaneous late miscarriage or preterm birth (PTB) between 14-28w with low vaginal cerclage (LVC) in situ (excluding rescue cerclage). 9 sites in UK between 2008 and 2014
- **I**: Multicenter RCT (1:1:1)- transabdominal cerclage (TAC) vs high vaginal cerclage (HVC) vs LVC placed preconception or before 14 weeks of gestation.
- **O**- delivery at <32w of pregnancy

Results: 111 of 139 recruited women conceived.

- Lower rate of PTB <32wafter TAC (8% vs 33%) **NNT=3.9**
- Fewer fetal losses after TAC (3% vs 21%) **NNT=5.3**
- PTB rates were similar for HVC vs LVC (38% vs 33%)
- 72% (28/39) of women with a TAC delivered at term

ZSOG

ZIMBABWE SOCIETY OF OBSTETRICIANS & GYNAECOLOGISTS

Transabdominal Cerclage for the management of recurrent second trimester pregnancy loss- A Case Series

- Five women were treated with laparoscopic transabdominal cerclage, four women preconception and one woman at 12 weeks of gestation
- All women were 1st seen by the author at the consultation for TAC- Borrowdale Fertility & Reproductive Endocrinology Clinic
- All TAC were performed at The Avenues Clinic, Harare

ZSOG

ZIMBABWE SOCIETY OF OBSTETRICIANS & GYNAECOLOGISTS

Ms TC

- 29y P0+2 miscarriages. Known PCOS.
- 2021- pv spotting at 23w-progesterone. Contractions and expulsion of fetus 2 days later.
- 2022- LVC at 12w. At 22w, cervical dilation. To theatre for new LVC. Severe contractions, stitch removed and expelled immediately
- O/E- hirsute,
- TVUS- normal anteverted uterus, PCOM
- Ix- negative APS, antithyroid, DM
- 25.10.2022- Hysteroscopy + preconception Laparoscopic TAC. Normal endometrial cavity and peritoneum. One night in hospital
- LMP-20.11.2022, letrozole, single intrauterine fetus of 6w. ASA + utrogestan pv.
- Complained pelvic and flank pain from 12 weeks on and off.
- 20weeks she could feel obstruction in vagina when inserting utrogestan. VE- cervix prolapsed almost at introitus. TVUS cervical length – stitch 52mm from distal cervix. Frequent reviews. Anxiety around time of previous loss. Stopped utrogestan at 28 weeks.
- Normal fetal growth,
- 02.08.2023- C-section at 36w3d, 2.8kg, breech. TAC left in situ. asymptomatic

ZSOG

ZIMBABWE SOCIETY OF OBSTETRICIANS & GYNAECOLOGISTS

Ms FM

- 29y, P0+3 miscarriages
- 2022 miscarriage at 14 w. Pelvic pain after intercourse and expelled 3 hours later
- 2023 LVC @14w. Bulging membranes at 18w. Stitch removed and expelled immediately
- 2023 LVC @ 7 weeks. Pelvic pain at 18w. Scan viable fetus. Expelled macerated fetus with LVC in situ at 19w.
- O/E- hirsute
- TVUS- normal anteverted uterus, bilateral PCOM.
- Ix- negative APS, antithyroid, DM
- LMP-25.11.2023, single viable fetus 6w
- Laparoscopic TAC at 12 weeks gestation. 2 nights in hospital
- 2 weekly reviews. High anxiety from 16 weeks. Stitch 42mm from distal cervix at 20w.
- Stopped utrogestan at 28w.
- 06.08.2024: C-section at 36w, 2.45kg. TAC left in situ

ZSOG

ZIMBABWE SOCIETY OF OBSTETRICIANS & GYNAECOLOGISTS

Ms FC

- 30y, P0G2
- 2020 miscarriage at 16 weeks- draining, painless cervical dilation, inevitable miscarriage
- 2022- LVC at 12 weeks + utrogestan. From 16weeks brownish pv discharge + dilating cervix. Utrogestan dose increased to 200mg bd pv + in-patient bed rest x 1 month and elevated legs. Original LVC removed and redone at 19 weeks. Cervical dilation with sac in vagina at 22weeks- spontaneous expulsion of non-viable fetus- D&C.
- O/E: 128kg, BMI-46.5.
- VE- Patulous cervix
- TVUS- normal anteverted uterus, PCOM ovaries
- Plan – weight loss BMI 35=75kg
- Ix- negative APS, antithyroid, dm, tsh1.21, HBA1C-4.9%
- Mx- Diet + exercise lost weight to 109kg, amlodipine, LSC TAC placed March 2023. To start OI/TI when ready.
- Separated from partner shortly after surgery and searching

ZSOG

ZIMBABWE SOCIETY OF OBSTETRICIANS & GYNAECOLOGISTS

Ms HM

- 40y P0 G14
- 2001 20 weeks- PROM
- 2003, 16w, spontaneous expulsion of live fetus in complete sac. 2 more 2nd trimester losses.
- Several pregnancy losses 14-18weeks. 4 x failed vaginal cerclages after the 1st 4 miscarriages, then gave up.
- Gave up on cerclage and continued to lose. Last pregnancy 2019, then contraception
- RVD+ on ART since 2012
- 2nd marriage since 2009. Last 9 pregnancies with current partner. 50y, 3 children out of union. Also RVD+
- Care worker in UK.
- O/E large globular uterus 11x7x7cm. Negative APS, Antithyroid Ab, glucose
- Hysteroscopy + Diagnostic laparoscopy 17.10.2023. Large globular uterus. Normal tubes & Ovaries, peritoneum. Converted to open procedure due to difficult access.
- Wrote back 1 month later that marriage had broken down and she was now seeking sperm donation. No reported side effects so far

ZSOG

ZIMBABWE SOCIETY OF OBSTETRICIANS & GYNAECOLOGISTS

Ms SN

- 33y P1+3
- 2018 ectopic pregnancy, laparoscopic salpingectomy
- 2019 failed vacuum delivery then C-section for CPD, Bwt 3.5kg
- 2022 miscarriage at 22w
- 2023 LVC at 20 weeks. Cervix dilated at 24w. LVC redone, dilated again and delivered by caesarean section 2 weeks later. Neonatal death at 3 weeks in NICU.
- + Acne, irregular menses 23-47d cycle,
- VE- defect left lateral cervix extending to corpus. (Cervical trauma)
- TVUS- normal anteverted. multifollicular ovaries.
- Ix- negative APS, antithyroid, DM
- January 2024- Laparoscopic cerclage. Converted to laparotomy-difficult access
- Currently on 2nd cycle of OI/TI with letrozole

ZSOG

ZIMBABWE SOCIETY OF OBSTETRICIANS & GYNAECOLOGISTS

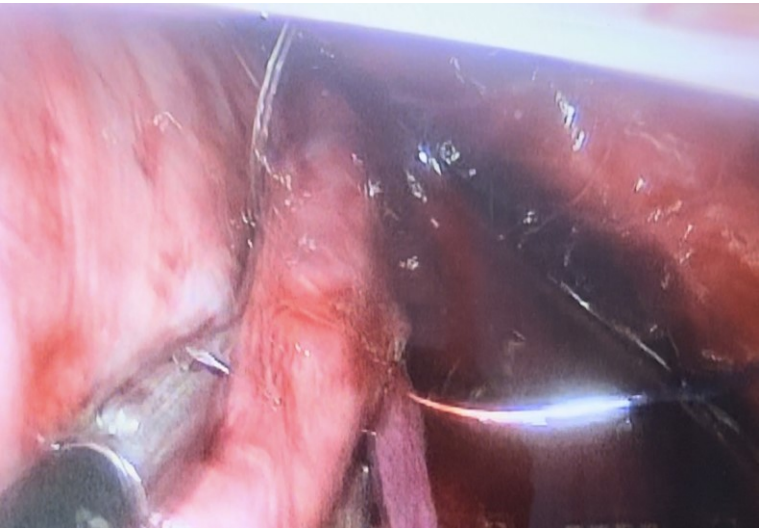
Results

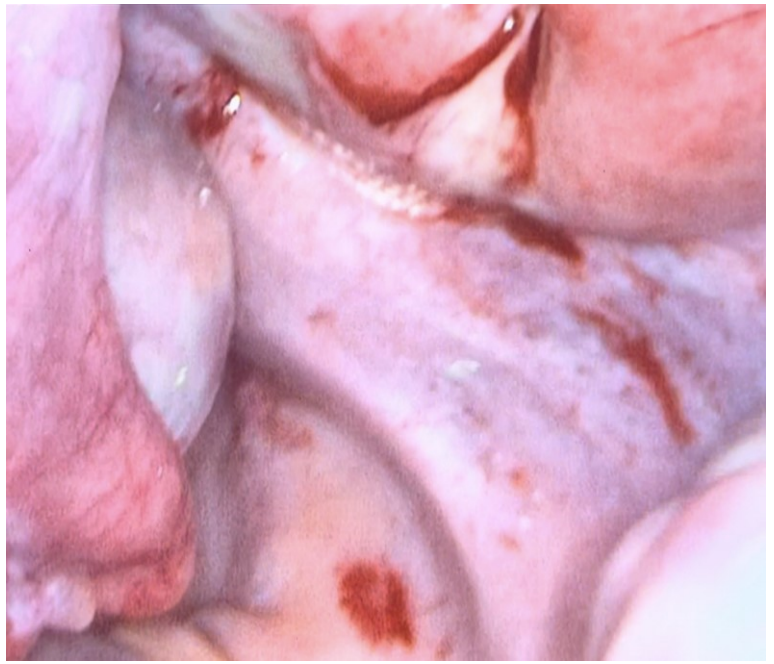
- Five women were treated with laparoscopic TAC, four preconception & one at 11w gestation.
- TAC was placed successfully in all 5 women- 3 completed laparoscopic and 2 converted to laparotomy.
- Two women have delivered healthy live infants after 36w gestation- one with preconception TAC & one with post-conception TAC, both placed laparoscopically.
- Three women have not conceived yet- two lost their marriages soon after the procedure and have not had the opportunity to try to conceive. One woman is currently actively trying to conceive.
- 4 of the 5 women met criteria for diagnosis of PCOS. Is there an association between PCOS and cervical insufficiency?

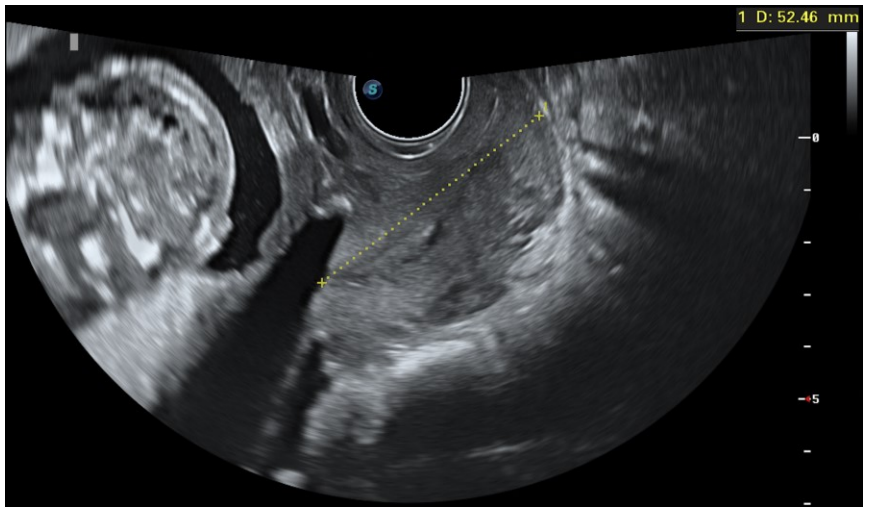
ZSOG

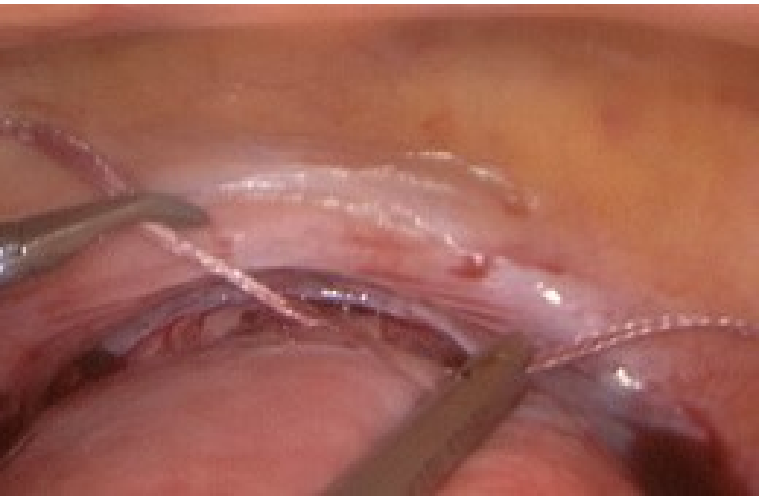
ZIMBABWE SOCIETY OF OBSTETRICIANS & GYNAECOLOGISTS

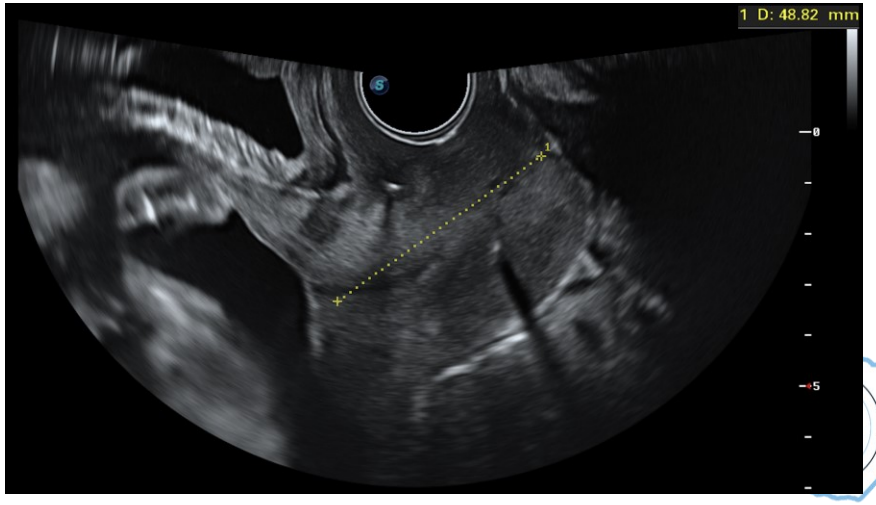
Techniques for Transabdominal cervical cerclage











ZSOG

ZIMBABWE SOCIETY OF OBSTETRICIANS & GYNAECOLOGISTS

Discussion & Recommendations

- In women with a failed vaginal cerclage, TAC was associated with a better pregnancy outcomes vs repeat vaginal cerclage
- Laparoscopic approach is favored - less blood loss, postoperative pain and adhesion formation and faster recovery
- OBGYNs should train and be able to offer this procedure when indicated
- Need more data regarding outcomes of the 2nd and 3rd pregnancies after the 1st caesarean section following TAC
- **3.7 %** pregnant women with PCOS developed cervical incompetence vs **0.6 %** non-PCOS pregnant women **[RR: 5.3]** **Association between polycystic ovarian syndrome and incompetent uterine cervix: A systematic review and meta-analysis** (Sindhu, J Gynecol Obstet Hum Reprod, 2024

ZSOG

DFC-Website-Logo-Full-Colour_1@300x

DAWN FERTILITY CENTRE

11 Dunkirk Drive
Alexandra Park, Harare

Helping Build Families

Services:

- Andrology
  - Semen analysis
  - Sperm DNA fragmentation tests
  - Sperm cryopreservation
- Semen wash for Intrauterine insemination (IUI)
- In vitro fertilization (IVF)/ Intracytoplasmic Sperm Injection (ICSI)
- Fertility Preservation
- Preimplantation genetic testing (PGT)

ZSOG