KAWITA BAPAT

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Learn simply

Cervical Insufficiency

Passion profession same

Suspect the diagnosis[1]

- History of one or more prior unexplained mid-trimester pregnancy loss
- Presence or absence of risk factors[2]
- Confirm gestational age
- Document fetal wellbeing

Low clinical index of suspicion

- *Discuss the options of cervical cerclage, but do not recommend*[3]
- Discuss progesterone supplementation[4]

High clinical index of suspicion

- **Recommend prophylactic cervical cerclage**[3]
- Review risks and benefits
- Obtain written consent
- Discuss progesterone supplementation[4]

Patient declines cerclage

Serial cervical length[5]

Remains normal

Routine care

Cervical shortening noted

- Consider revisiting the option of cervical cerclage[6]
- Discuss progesterone supplementation[7]
- √ NST to exclude uterine contractions

If contractions

- Admit to hospital
- **√ fetal fibronectin**[8]
- *Bed rest/pelvic rest*
- **Antenatal steroids**
- MFM, NICU consults

If no contractions

- Outpatient management
- Serial cervical length q 1–2 weeks
- **√ fetal fibronectin**[8]
- *Consider bed rest/pelvic rest*
- Consider antenatal corticosteroids

Patient consents to cerclage

Exclude contraindications to cervical cerclage placement[9]

Place cervical cerclage

Technical considerations include...

- Type of cerclage and technique[10]
- Use of tocolytic agents, antibiotics[11]

Subsequent follow-up

- Weekly or biweekly visits
- **Serial cervical length**[5]
- Ask about complications[12]
- *Pelvic rest (no tampons, intercourse)*

Remove cerclage electively at 36–37 weeks (consider earlier removal if there are contractions, bleeding, or PROM)

1. Cervical insufficiency (also known as cervical incompetence (CI)) refers to a functional weakness of the cervix resulting in a failure to carry a pregnancy till term. CI is a clinical diagnosis characterized by acute, painless dilatation of the cervix usually in the mid-trimester (16–24 weeks) culminating in membrane prolapse and/or pPROM with resultant preterm and often previable delivery.

2. Symptoms may include watery discharge, pelvic pressure, vaginal bleeding, or pPROM, but most women are asymptomatic. Uterine contractions are typically absent or minimal. The cause is not known. There is no test in the non-pregnant state that can confirm the diagnosis. CI complicates 0.1–2% of all pregnancies, and is responsible for 15% of births between 16–28 weeks' gestation.

3. Risk factors for CI include a prior history of CI, in utero diethylstilbestrol (DES) exposure, connective tissue disorders (Ehlers-Danlos syndrome), cervical hypoplasia, (possibly) prior cervical surgery (cone biopsy, LEEP), and (possibly) ≥2 late D&E procedures. Most patients with CI have no identifiable risk factors.

1. Prophylactic (elective) cerclage placement at 13–16 weeks is the appropriate treatment for CI, because of the 15–30% risk of recurrence. If the prior preterm birth was due to preterm labor and not CI, then elective cerclage is not indicated. In women with prior spontaneous preterm birth, serial cervical length measurements with cerclage placement, if shortened, are recommended. Elective cerclage has only been proven effective in women with ≥2 mid-trimester pregnancy losses due to CI. Prophylactic cerclage is not indicated for multiple pregnancies or a history of in utero DES exposure in the absence of a prior pregnancy loss.

2. Progesterone supplementation (17α-hydroxyprogesterone caproate 250 mg IM weekly starting between 16 and 20 weeks through 36 weeks) can prevent preterm birth in women with prior spontaneous preterm birth of a liveborn singleton between 20 weeks and 36 weeks 6 days. This option should be discussed and the discussion documented.

1. Cervical length (CL) should be measured serially in women at high risk for preterm birth, including a baseline measurement at 16–18 weeks and q 1–2 weeks thereafter depending on the clinical setting. Measurements can be discontinued at 24 weeks. Mean CL at 22–24 weeks is 3.5 cm (10th–90th percentile is 2.5–4.5 cm). A CL of <2.5 cm is abnormal. A CL of <1.5 cm occurs in <2% of women, but is associated with a 60% and 90% risk of preterm birth <28 weeks and <32 weeks, respectively.
2. Cervical cerclage placement for either asymptomatic cervical shortening (salvage/rescue cerclage) or premature effacement and/or dilatation of the cervix (emergent cerclage) is controversial. The weight of evidence in the literature suggests that there is no benefit from such procedures.
3. It remains controversial as to whether progesterone supplementation administered vaginally can prevent preterm birth in some women at high risk by virtue of a short cervix (<1.5 cm) measured on transvaginal ultrasound in the mid-trimester.

1. Absolute contraindications to cerclage include uterine contractions/preterm labor, intraamniotic/vaginal infection, ruptured membranes, IUFD, major fetal structural/ chromosomal anomaly incompatible with life, absence of patient consent, and ≥28 weeks' gestation. Relative contraindications include unexplained vaginal bleeding, IUGR, advanced cervical dilatation with prolapsing membranes (because of 50% risk of rupture of membranes), and ≥24 weeks' gestation.

2. Written consent is required. An ultrasound should be performed prior to placement to confirm fetal viability and exclude major structural anomalies. Regional anesthesia is preferred. A postoperative ultrasound is recommended to confirm fetal well-being. subsequent cesarean delivery, and should therefore be reserved for women in whom a transvaginal cerclage is technically impossible to place or who have failed previous transvaginal cerclage placements.

1. There are insufficient data to recommend routine use of prophylactic antibiotics or tocolytic medications for elective cerclage placement, although there may be some benefit for emergency cerclage.

2. Short-term complications (<24 hours) include excessive blood loss, PROM, and pregnancy loss (3–20%). Long-term complications include cervical lacerations (3–4%), chorioamnionitis (4%), cervical stenosis (1%), and bladder pain and migration of the suture (rare). Puerperal infection is two-fold more common in women with a cerclage (6%).