Cervical Incompetence

What is cervical incompetence?

- It is a condition of pregnancy in which the cervix begins to dialatation and efface before the pregnancy has reach the term.

- Here the uterIne cervix is not able to retain the (live foetus)pregnancy in the absence of signs and symptoms of labour in second trimester.

- So this results second thrimester miscarriage or preterm birth.

- It has been estimated that cervical incompetence complicates about 1% of pregnancies.

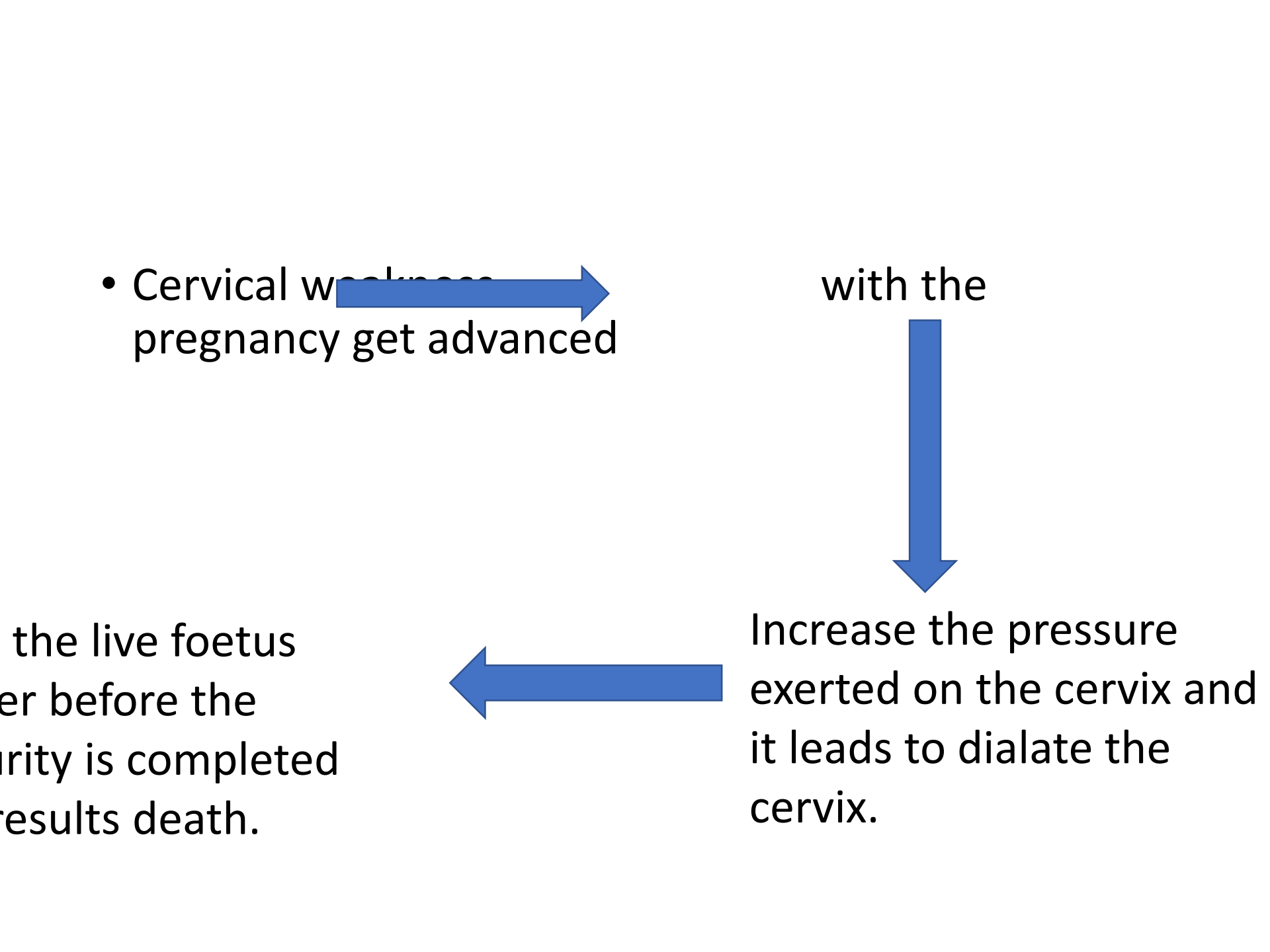
- It also a cause for second thrimester recurrent miscarriages.

Main three points are,

1. Take place in Second trimester
2. Painless expulsion, So it differ from preterm labour.
3. Live foetus, so not due to foetal death.

Sign of cervical waekness

- Funneling at the internal orifice of the uterus, which is a dialatation of the cervical canal at this location.
- In normal pregnancy the dialatation and effacement occurs in response to uterine contractions.
- Cervical weakness is a problem when the cervix is pushed to open by the growing pressure in the uterus as pregnancy progresses.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Risk factors

1. Diagnosis of cervical weakness in a previous pregnancy.

2. Previous preterm prelabour rupture of membranes.

3. A history of conization.(Cervical biopsy)

4. Uterine anomalies.

Diagnosis

- This can be broadly categorized in to two,

1. History based.
2. Ultrasound scan based.

In history based, painless cervical dialatation after first thrimester without labour contractions and expel of a live foetus.

Ultrasound scan based,

- Cervical length less than 25 mm at or before 24 weeks of gestational age , Consider as Cervical incompetence.

Risk of pre term birth inversely proportional to the cervical length.

- Less than 25 mm : 18% risk for pre term birth.
- Less than 20mm : 25% risk of pre term birth.

Treatment

- Cervical weakness is not generally treated unless it appears to threaten a pregnancy.

- Can treat by using ,

1. Cervical cerclage
2. Surgical technique that reinforces the cervical muscles by placing sutures above the opening of the cervix to cervical canal.

Cervical cerclage

- Types of cerclage, according to indication.

1. History indicated.
2. Ultrasound indicated.
3. Rescue.

- Category according to way of insertion.

1. Transvaginal Cerclage (McDonald)
2. High transvaginal cerclage.
3. Transabdominal cerclage.

story indicated

Done on asymptomatic mothers.

Put in 12 -14 weeks.

Used in women with three or more preterm births or second trimester pregnancy loss.

Ultrasound indicated

Perform in mothers with asymptomatic and membranes are not exposed to vagina.

Women with a history of one or more spontaneous mid-trimeste losses or preterm births who are undergoing transvaginal sonographic surveillance of cervical length should be offered an ultrasound indicated cerclage if the cervix is 25 mm or less and before 24 weeks of gestation.

Rescue cerclage

- The decision to place a rescue suture should be individualised, taking into account the gestation at presentation, as even with rescue cerclage the risks of severe preterm delivery and neonatal mortality and morbidity remain high.
- . Insertion of a rescue cerclage may delay delivery by a further 5 weeks on average compared with expectant management/bed rest alone.
- It may also be associated with a two-fold reduction in the chance of delivery before 34 weeks of gestationHo
- There are only limited data to support an associated improvement in neonatal mortality or morbidity. Advanced dilatation of the cervix (more than 4 cm) or membrane prolapse beyond the external os appears to be associated with a high chance of cerclage failure.

Contraindications for cerclage.

1. active preterm labour
2. clinical evidence of chorioamnionitis.
3. PPROM
4. evidence of fetal compromise
5. lethal fetal defect
6. fetal death.

Procedure

- Elective transvaginal cerclage can safely be performed as a day-case procedure.
- Women undergoing ultrasound-indicated or rescue cerclage, given the higher risk of complications such as PPROM, early preterm delivery, miscarriage and infection, may benefit from at least a 24-hour postoperative period of observation in hospital.

- In women undergoing insertion of transabdominal cerclage via laparotomy, an inpatient stay of at least 48 hours is recommended.

When should need to remove the cerclage

- A transvaginal cervical cerclage should be removed before labour, usually between 36+1 and 37+0 weeks of gestation, unless delivery is by elective caesarean section, in which case suture removal could be delayed until this time.

- In women presenting in established preterm labour, the cerclage should be removed to minimise potential trauma to the cervix.