

Cervical Cerclage: A Lifesaving Procedure for High-Risk Pregnancies

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DESCRIPTION

Cervical cerclage is a surgical procedure that plays a critical role in the management of high-risk pregnancies, particularly in women with a condition known as cervical insufficiency or incompetent cervix. This condition, which can lead to premature birth or pregnancy loss, involves the weakening or opening of the cervix prematurely during pregnancy. Cervical cerclage is designed to prevent these complications by reinforcing the cervix with sutures, thereby reducing the risk of preterm birth. For many women, this procedure is lifesaving, allowing them to carry their pregnancies to term and deliver healthy babies.

Understanding cervical insufficiency

Cervical insufficiency is a condition where the cervix, which normally remains tightly closed during pregnancy, begins to shorten, thin, or open prematurely. This condition can lead to the loss of a pregnancy or premature birth, particularly in the second trimester when the growing fetus places increasing pressure on the cervix. The exact cause of cervical insufficiency is not always clear, but it can be associated with factors such as previous cervical surgeries, trauma to the cervix, congenital abnormalities, or a history of preterm birth.

Women with cervical insufficiency often do not experience symptoms until the cervix begins to open, at which point it may be too late to prevent preterm labor or pregnancy loss. This makes early detection and intervention crucial in managing high-risk pregnancies. Cervical cerclage is one of the most effective interventions available to prevent these outcomes.

The role of cervical cerclage

Cervical cerclage involves placing stitches around the cervix to reinforce it and prevent it from opening too early. The procedure is typically performed between 12 and 24 weeks of pregnancy, depending on the individual circumstances of the patient.

Prophylactic (preventive) cerclage: This is usually performed in women with a known history of cervical insufficiency or recurrent pregnancy loss. It is typically done between 12 and 14 weeks of pregnancy before the cervix begins to show signs of weakening.

Therapeutic (rescue) cerclage: This type is performed when the cervix is found to be shortening or dilating during an ultrasound in the second trimester, usually between 16 and 24 weeks of pregnancy. It is a response to early signs of cervical insufficiency detected during pregnancy.

Emergency (rescue) cerclage: This is performed when the cervix has already begun to open, but the membranes have not yet ruptured, and there is still a chance to prolong the pregnancy. This type of cerclage is often seen as a last resort to prevent imminent preterm birth.

The procedure

Cervical cerclage is generally performed under regional anesthesia, such as spinal or epidural anesthesia, although general anesthesia may also be used in some cases. The procedure can be done transvaginally, where the stitches are placed through the vagina, or transabdominally, where the stitches are placed through an incision in the abdomen.

During the procedure, the cervix is accessed using a speculum, and strong sutures are placed around it to close it off and reinforce its structural integrity. The stitches are typically made of a non-absorbable material that will be removed later in the pregnancy, usually around the 37th week, or earlier if labor begins spontaneously.

The transabdominal approach, although less common, may be necessary in cases where the cervix is too short or difficult to access through the vagina, or if a previous transvaginal cerclage has failed. This approach involves making an incision in the abdomen and placing the stitches higher up on the cervix. Because of the complexity of this procedure, the stitches are usually left in place for future pregnancies and delivered *via* cesarean section.

Effectiveness and benefits

Cervical cerclage has been shown to be highly effective in reducing the risk of preterm birth and pregnancy loss in women with cervical insufficiency. Studies have demonstrated that this procedure can significantly prolong pregnancy, giving the fetus

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Received: 28-Jun-2024, Manuscript No. RSSD-24-33596; **Editor assigned:** 01-Jul-2024, PreQC No. RSSD-24-33596 (PQ); **Reviewed:** 17-Jul-2024, QC No. RSSD-24-33596; **Revised:** 24-Jul-2024, Manuscript No. RSSD-24-33596 (R); **Published:** 31-Jul-2024, DOI: 10.35248/2161-038X.24.13.428

Citation: Michael J (2024). Cervical Cerclage: A Lifesaving Procedure for High-Risk Pregnancies. *Reprod Syst Sex Disord*.13:428.

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more time to develop and increasing the chances of a healthy birth. For women with a history of second-trimester pregnancy losses or preterm births, cervical cerclage can be a critical intervention.

Risks and considerations

While cervical cerclage is generally safe and effective, it is not without risks. Potential complications include infection, bleeding, rupture of the membranes, and preterm labor. In some cases, the cerclage may fail, leading to premature delivery despite the intervention. Additionally, the procedure may not be suitable for all women, particularly those with certain infections, uterine contractions, or other medical conditions that contraindicate the placement of the cerclage.

Another consideration is that cervical cerclage is not a guarantee against preterm birth. While it significantly reduces the risk, it does not eliminate it entirely. Therefore, women who undergo this

procedure are usually closely monitored throughout their pregnancy. This monitoring may include regular ultrasounds to assess cervical length, as well as frequent prenatal visits to check for signs of preterm labor or other complications.

CONCLUSION

Cervical cerclage is a lifesaving procedure for many women with high-risk pregnancies due to cervical insufficiency. By reinforcing the cervix and preventing it from opening prematurely, cerclage can significantly reduce the risk of preterm birth and pregnancy loss, giving the fetus more time to develop and increasing the chances of a healthy outcome. While the procedure carries some risks, the benefits for women with a history of cervical insufficiency are considerable, making it an essential tool in the management of high-risk pregnancies.