

PROTOCOL #40 - Maternal Fetal Medicine, University of New Mexico

Cervical Incompetence

I. General

- Defined as recurrent second trimester pregnancy loss caused by an intrinsic or acquired weakness in cervical tissue integrity in which the cervix undergoes painless effacement and dilatation.
- Occurs in degrees and may present as classically defined recurrent pregnancy loss in the second trimester in the absence of labor, or as an abnormally shortened cervix that predisposes the patient to preterm labor, preterm premature rupture of the membranes (PPROM), and preterm delivery

II. Management protocol for patients with a history of “classic” cervical incompetence:

- Offer a prophylactic vaginal cerclage, to be performed at the close of the 11th to 12th week of gestation generally using a McDonald cerclage or a Shirodkar
 - operative note describing the procedure and the placement of the knots should be dictated.
- Patients should report vaginal infections and bleeding but are not placed at pelvic or bedrest.
- Cerclage is removed at or about 36 weeks gestation in the office or in L&D. Care is taken to cut below the knots so as to completely free the suture(s) from the cervix.
- Labor rarely ensues immediately upon cerclage removal
- For patients presenting early in pregnancy with a history of “classic” cervical incompetence and a cervix shortened to an extreme degree, an abdominal cerclage is a consideration.

III. Prophylactic cerclage for patients “at risk” for cervical incompetence: includes those without a history of “classic” incompetent cervix, but with a history of unexplained preterm labor, PPROM before 32 weeks, cervical conization, and uterine anomaly.

- Obtain baseline cervical length early in gestation and follow at regular intervals depending upon the previous history and usually not to exceed 2 weeks
- Consider cerclage if the cervical length is less than 2.5 cm.
- A McDonald or Shirodkar procedure is generally performed if sufficient cervical tissue is present. Pelvic rest should be instituted, and bedrest may be considered.

IV. Rescue cerclage for patients with preterm labor and signs and symptoms suggestive of incompetent cervix, including advanced cervical effacement/dilatation:

- The patient is admitted to L&D and evaluated for the presence of bleeding and infection. Amniocentesis to detect infection in utero may be considered if the uterine contractions abate and the patient is stable with an ongoing pregnancy.

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- Antenatal steroids should be considered for gestational ages between 24 and 34 weeks.
- The rescue cerclage is performed under regional anesthesia on L&D. Antecedent tocolysis and tocolysis continuing after the procedure should be given consideration.
- Risks of cerclage, including precipitating preterm labor, PPROM, infection, and bleeding should be presented to the patient.
- A period of hospitalization, bedrest, and pelvic rest is recommended. Close follow-up is mandatory due to the high risk of infection, preterm labor and PPROM in these pregnancies
- The alternative management to cerclage includes in hospital observation, strict bed rest, and following cervical length by transvaginal ultrasonography.
- In the setting of a significantly effaced and/or dilated cervix, it is not clear that either management (bedrest vs. bedrest + cerclage) is superior. Plan of care should be individualized based upon the patient's wishes and the conformation of the cervix, i.e. how difficult it would be to place a successful cerclage.

REFERENCES

Vaisbuch E, Romero R, Mazaki-Tovi S, Erez O, Kusanovic JP, Mittal P, Gotsch F, Ward C, Romero V, Chaiworapongsa T, Pacora P, Yeo L, Hassan SS. The risk of impending preterm delivery in asymptomatic patients with a nonmeasurable cervical length in the second trimester. *Am J Obstet Gynecol.* 2010 Nov;203(5):446.e1-9.

Owen J, Hankins G, Iams JD, Berghella V, Sheffield JS, Perez-Delboy A, Egerman RS, Wing DA, Tomlinson M, Silver R, Ramin SM, Guzman ER, Gordon M, How HY, Knudtson EJ, Szychowski JM, Cliver S, Hauth JC. Multicenter randomized trial of cerclage for preterm birth prevention in high-risk women with shortened midtrimester cervical length. *Am J Obstet Gynecol.* 2009 Oct;201(4):375.e1-8.

Drakeley AJ, Roberts D, Alfirevic Z. Cervical stitch (cerclage) for preventing pregnancy loss in women. *Cochrane Database of Systematic Reviews* 2003, Issue 1. Art. No.: CD003253. DOI: 10.1002/14651858.CD003253.