

Pregnancy outcome after placement of laminaria and subsequent second trimester removal

Margaret R. Monroe, MD¹, Tiffany R. Tonismae, MD¹, Raphael Guichard, MD¹

1. Bayfront Health, St. Petersburg, FL, USA

Abstract

OBJECTIVE: To report the pregnancy outcome after the removal of laminaria that was placed for an elective termination of pregnancy at 19 weeks gestational age.

BACKGROUND: According to data collected by the CDC, patients present for elective termination of pregnancy in 11.4 per 1000 women (reported between 2010 to 2019), and only 6.2% of these abortions are performed between 14 and 20 weeks gestation. For second trimester abortions, osmotic dilation prior to a dilation and curettage or evacuation is common practice.

Patients undergo extensive counseling when considering an elective termination of pregnancy, however, rarely, a patient changes their mind even after the process has been started. Specifically, patients who receive osmotic dilators, in this case Laminaria tent inserts, for cervical dilation and preparation, they can change their mind and request removal of laminaria. There is limited data in the literature about pregnancy outcomes following attempted elective termination of pregnancy when the process has been interrupted. In review of 19 cases of women who had undergone extensive cervical dilation with laminaria in preparation for dilation and curettage for elective abortion, the outcomes of these pregnancies varied. Four of the nineteen cases resulted in full term, uncomplicated vaginal deliveries of viable infants. However, six of the pregnancies resulted in spontaneous abortion or fetal/neonatal death, while the remaining nine pregnancies experienced complications including premature preterm rupture of membranes, preterm delivery, maternal infection and hemorrhage. Further, most of these patients received some type of broad-spectrum antibiotic after laminaria removal for prevention of acute chorioamnionitis. This case represents one case of Laminaria insertion for termination with subsequent presentation one month following with preterm premature rupture of membranes past viability.

CASE DESCRIPTION: A 25-year-old gravida 3 para 1011 presented to the emergency department (ED) for removal of laminaria that was placed several hours prior at Planned Parenthood in preparation for an elective termination at 19 weeks 5 days gestation. Eight laminaria sticks were placed under cervical block for anesthesia around 10am and patient reported that severe cramping and contractions began shortly after. She then had a change of heart and decided she wanted to keep the pregnancy and have the laminaria removed. Laminaria was removed by obstetric provider and cervix was noted to be 2-3cm dilated with erythema and oozing of blood noted within cervical os from mechanical dilation. Fetal heart tones were confirmed via ultrasound, and patient was discharged on prophylactic antibiotics with Metronidazole and Cephalexin. Patient was given strict preterm labor and preterm premature rupture of membranes (PPROM) precautions.

The patient returned for evaluation at 24 weeks 3 days for PPRM and was found to have advanced cervical dilation. She

was delivered via emergent cesarean section for fetal bradycardia and infant was transferred to neonatal intensive care unit (NICU). Final pathology for placenta showed severe necrotizing acute chorioamnionitis and mild acute umbilical panvasculitis, with no villitis identified. Patient remained afebrile with complete blood count within normal limits both prior to and after delivery.

DISCUSSION: While outcomes following prolongation of pregnancy after attempted termination of pregnancy vary greatly, limited literature is available for review to properly counsel patients. While it is rare for patients to change their mind once termination procedures have been initiated, providers should be knowledgeable about possible outcomes and risks. It is reasonable to allow the pregnancy to proceed with strict preterm labor, infection, and PPROM precautions. Patients should be counseled on the high risk of fetal morbidity and mortality, however, successful pregnancy outcomes have been documented. At this time, there is not enough data to prove risk reduction with antibiotic administration. In this case with advanced cervical dilation and manipulation of the amniotic membranes at the time of laminaria removal, we chose to treat the patient with broad spectrum antibiotics to help reduce risk or severity of acute chorioamnionitis and PPROM. Further studies are needed to determine risk reduction in patients given antibiotics compared to those that do not receive antibiotics in similar cases.