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Cervical preparation for second-trimester surgical abortion prior to 20 weeks' gestation: SFP Guideline #2013-4

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Abstract

For a dilation and evacuation (D&E) procedure, the cervix must be dilated sufficiently to allow passage of operative instruments and products of conception without injuring the uterus or cervical canal. Preoperative preparation of the cervix reduces the risk of cervical laceration and uterine perforation. The cervix may be prepared with osmotic dilators, pharmacologic agents or both. Dilapan-S™ and laminaria are the two osmotic dilators currently available in the United States. Laminaria tents, made from dehydrated seaweed, require 12-24 h to achieve maximum dilation. Dilapan-S™, made of synthetic hydrogel, achieves significant dilation within 4 h and is thus preferable for same-day procedures. A single set of one to several dilators is usually adequate for D&E before 20 weeks' gestation. Misoprostol, a prostaglandin E1 analogue, is sometimes used instead of osmotic dilators. It is generally regarded as safe and effective; however, misoprostol achieves less dilation than overnight osmotic tents. The literature supports same-day cervical preparation with misoprostol or Dilapan-S™ up to 18 weeks' gestation. As the evidence regarding alternative regimens increases, highly experienced D&E providers may consider same-day regimens at later gestations utilizing serial doses of misoprostol or a combination of osmotic and pharmacologic agents. Misoprostol use as an adjunct to overnight osmotic dilation is not significantly beneficial before 19 weeks' gestation. Limited data demonstrate the safety of misoprostol before D&E in patients with a prior cesarean delivery. Mifepristone, a progesterone receptor antagonist, is also effective for cervical preparation prior to D&E, although data to support its use are limited. The Society of Family Planning recommends preoperative cervical preparation to decrease the risk of complications when performing a D&E. Since no single protocol has been found to be superior in all situations,

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... Various mechanical devices can be used to induce labor. The device is commonly inserted into the cervical canal or the extra-amniotic space and works through dilation of the cervical canal and/or the endogenous release of prostaglandins and oxytocin[3, 4] , the Foley urinary catheter being the most common device deployed. The balloon is then inflated and sometimes traction is applied. ...

... Other mechanical agents have been developed that overcome common prejudices against these devices. Some are hydrophilic agents made from sterile sea weed (known as laminaria tents) or synthetic materials (such as Dilapan-S or Dilasoft) that function through gradual radial expansion of the cervical canal as well as stimulating the release of endogenous prostaglandin and oxytocin[3, 4] . To date, Dilapan-S has been described in literature as a useful tool in cervical preparation prior to dilation and evacuation in induced abortion < 20 gestational weeks[4,5]. ...

... Some are hydrophilic agents made from sterile sea weed (known as laminaria tents) or synthetic materials (such as Dilapan-S or Dilasoft) that function through gradual radial expansion of the cervical canal as well as stimulating the release of endogenous prostaglandin and oxytocin[3,4]. To date, Dilapan-S has been described in literature as a useful tool in cervical preparation prior to dilation and evacuation in induced abortion < 20 gestational weeks [4, 5]. Dilapan-S is a tiny rod made from synthetic hydrophilic material (Aquacryl 90) attached to a polypropylene handle. ...

Cervical ripening with an osmotic dilator (Dilapan-S) in term pregnancies – An observational study

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infectious morbidity. For same day procedures, synthetic osmotic dilators are preferred over laminaria tents as they achieve adequate cervical preparation more quickly [31]. ...

Synthetic Osmotic Dilators for Cervical Preparation Prior To Abortion—An International Multicentre Observational Study

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... There is, however, evidence that osmotic dilators are effective over other means of cervical ripening such as prostaglandins [3], thus explaining the popularity of their use. Additionally, the Society of Family Planning recommends the preoperative use of cervical dilators to decrease the risk of complications when performing dilation and extraction [4]. Some complications of osmotic dilators such as infection have been reported in the literature, but uncommon amongst the literature is the retention of laminaria. ...

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... Derived from the seaweed *Laminaria japonica* or *digitata*, laminaria complications include infection, ruptured membranes, device fragmentation or retention and rarely anaphylaxis [1,2]. Conversely, Dilapan-S is a faster-acting synthetic polyacrylate-based hydrogel rod without reported hypersensitivity reactions [3]. Since laminaria placement is frequently an outpatient procedure, risk factor identification, early recognition and rapid treatment of hypersensitivity reactions is imperative. ...

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... This procedure is performed as an inpatient surgical maneuver. It begins with a period of preoperative cervical preparation to obtain adequate cervical dilation which is accomplished by use of prostaglandin analogue and it is performed under general

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... While the referring provider was unsure of when or how the perforation occurred, a review of the literature recommends against use of rigid dilators alone in the second trimester and thus pre-procedure preparation is essential. 6 Cervical preparation prior to dilation and evacuation can be done pharmacologically, namely with mifepristone and/or misoprostol, or mechanically with osmotic dilators. Insufficient cervical dilation is an independent risk factor for complications. ...

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... The preparation of the cervix at the 17-22 weeks period of pregnancy requires greater time, sometimes 2-3 days (with replacement of dilators) [17]. The comparison of Dilapan-S with laminaria tents showed that the adequate cervical dilation on the 2nd day was achieved in 98 and 56% of women respectively [18]. ...

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Cervical preparation for dilation and evacuation at 20–24 weeks' gestation

January 2020 · Contraception

Eleanor A Drey · Justin T. Diedrich ·  Sara J Newmann

Although only 1.3% of abortions in the United States are between 20-24 weeks' gestation, these procedures are associated with elevated risks of morbidity and mortality. Adequate cervical preparation before dilation and evacuation (D&E) at 20-24 weeks' gestation reduces procedural risk. For this gestational range, at least one day of cervical preparation with osmotic dilators is recommended before ... [\[Show full abstract\]](#)

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