Table 3. Indications for Cesarean Delivery by Arm of Randomization.

Indication	EM (n=14)	IOL (n=28)	Relative Risk (95% CI)	p Value
Fetal heart rate abnormalities	5 (36%)	4 (14%)	0.4 (0.13-1.26)	0.14
Arrest of dilation	5 (36%)	18 (64%)	1.8 (0.85-3.83)	0.09
Arrest of descent	3 (21%)	5 (18%)	0.8 (0.23-3.0)	0.78
Suspected macrosomia	1 (7%)	0 (0)	NA	

EM=expectant management; IOL=induction of labor.

more likely to have been done for arrest of dilation in the IOL group (64%) compared with the EM group (36%). The difference was not statistically significant, but the study was not designed to be powered to detect a difference in this outcome (Table 3).

Using the analysis criteria stated earlier, the authors of this study concluded that women who received IOL at 39 weeks did not have a statistically significant increase in cesarean delivery compared with those expectantly managed. Larger prospective multicenter studies are needed to produce further evidence on the common practice of elective IOL.

Mifepristone and Misoprostol as Effective as Osmotic Dilation for Second-Trimester Termination

Written by Nicola Parry

Amy E. Paris, MD, Boston University School of Medicine, Boston, Massachusetts, USA, presented results from a prospective randomized clinical trial demonstrating that when compared with mechanical methods, pharmacologic cervical preparation does not prolong procedure times in patients undergoing surgical evacuation of second-trimester pregnancies and is acceptable to both operators and patients [Paris AE et al. *Obstet Gynecol* 2014].

Cervical preparation is recommended before surgical evacuation of second-trimester pregnancies, and in the United States, it is achieved via mechanical methods (osmotic dilators [ODs]), pharmacologic agents (misoprostol and mifepristone), or a combination of both techniques [Fox. *Contraception* 2014; Newmann. *Cochrane Database Syst Rev* 2010]. Mifepristone is considered more effective than misoprostol for first-trimester surgical abortion and between 14 and 16 weeks of gestation, but it is noninferior to ODs with respect to procedure time [Borgatta L et al. *Contraception* 2012; Kapp N et al. *Cochrane Database Syst Rev* 2010; Carbonnel JL et al. *Contraception* 2007]. The combination of mifepristone and misoprostol may also effectively permit evacuation, and it has been shown to be more effective than misoprostol alone for second-trimester surgical abortion.

Although prostaglandins and ODs have been used and studied as cervical preparations before second-trimester surgical abortion, there is no consensus as to which method is superior with regard to safety, procedure time, need for additional dilation, ability to perform the procedure, or patient and physician acceptability [Newmann SJ et al. *Cochrane Database Syst Rev* 2010]. With this in mind, Prof. Paris and colleagues conducted a randomized controlled study to compare the efficacy of pharmacologic versus mechanical cervical preparation before surgical evacuation at 15 to 18 weeks.

The primary endpoint of the study was total abortion time (from insertion of the speculum to its removal) and total operative time. Secondary outcomes were operator- and patient-related experiences.

Fifty women (age, 18 to 45 years; gestational age, 15 to 18 weeks) undergoing surgical abortion were prospectively and randomly assigned to 2 cervical preparation groups. Baseline characteristics were similar in both groups (mean age, 26 years; mean gestational age, 16±2 weeks; 30% were nulliparous; 20% had undergone a previous second-trimester surgical abortion via ODs).

Women in the pharmacologic preparation group received mifepristone (200 mg, orally) 24 hours before the procedure and misoprostol (400 µg, buccally) 2 hours before. Those in the mechanical preparation group underwent OD insertion 24 hours before the procedure.

There was no difference between the pharmacologic and OD groups in the primary outcome of median total abortion time (13.5 vs 14.0 minutes; p=0.99) and operative time (from intrauterine instrumentation to speculum removal; 7.0 vs 8.5 minutes; p=0.51).

With respect to secondary outcomes, physicians rated the ease of procedure similarly for both methods. However, women in the OD group reported more discomfort overnight and indicated that they would prefer mifepristone if they ever needed another procedure.

Prof. Paris concluded that the use of mifepristone, followed by misoprostol, for cervical preparation is as effective as overnight ODs for cervical preparation before surgical abortion for up to 18 weeks and does not result in longer procedure times. She also stated that women prefer the pharmacologic preparation method because it is associated with less procedural discomfort.

Self-Administered Lidocaine Reduces Pain With Instrument Placement, but Not With Intrauterine Device Insertion

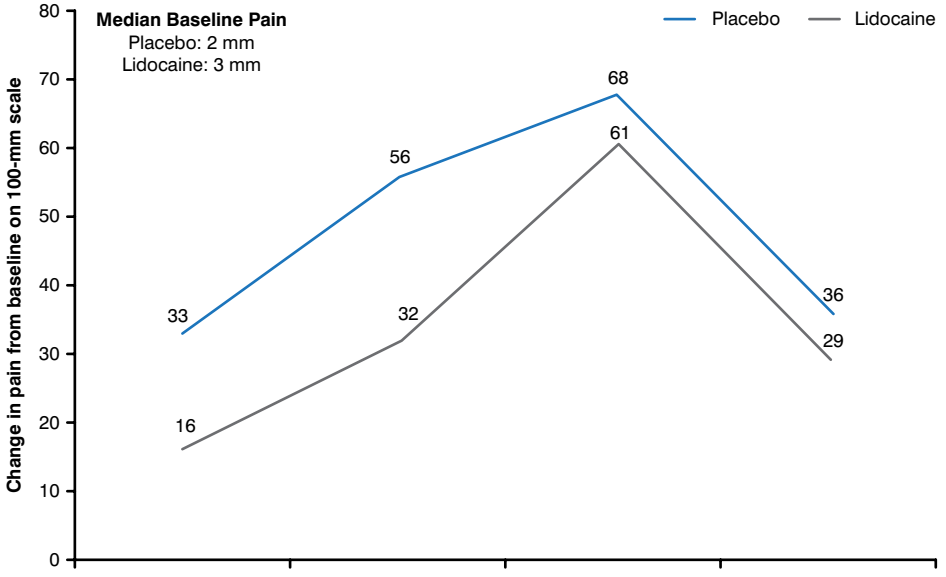
Written by Nicola Parry

Rachel Becker Rapkin, MD, MPH, Morsani College of Medicine, University of South Florida, and University of Pittsburgh Medical Center, Pennsylvania, USA, presented results from a randomized clinical trial, demonstrating that self-administered lidocaine gel does not significantly reduce the pain associated with intrauterine device (IUD) insertion in nulliparous women, but does reduce pain during placement of the speculum and tenaculum, and therefore may be used prior to gynecological examinations and procedures [Rapkin RB et al. *Obstet Gynecol* 2014].

Despite their safety and efficacy in nulliparous women, IUDs remain underutilized, often because of the fear of pain associated with their insertion. To date, studies to investigate pain management have shown that the use of analgesics during IUD placement provide no clear benefit [Rapkin RB et al. *Obstet Gynecol* 2014]. Prof. Rapkin and colleagues conducted a randomized, double-blind, placebo-controlled trial to evaluate the efficacy of self-administered vaginal lidocaine gel before IUD insertion in nulliparous women with no history of pregnancy in the last 6 weeks. Exclusion criteria included women in whom there was prior IUD use or failed attempt at IUD insertion, use of narcotics or benzodiazepines within 24 hours, and contraindication to IUD use or amide anesthetic.

Women were randomized to self-administer 10 mL 2% lidocaine (n=30) or placebo gel (n=29) 5 minutes prior to IUD insertion. They used an electronic visual analog scale (VAS) to measure pain at baseline, during placement of the speculum and tenaculum, insertion of the IUD, and 5 minutes after speculum removal. Women were evaluated 1 week after IUD insertion to assess their need for pain medication after the procedure and their overall satisfaction.

Figure 1. Median Pain Scores During the Intrauterine Device Insertion Procedure



	Speculum	Tenaculum	IUD	5 minutes
Placebo (SD)	33 mm (25.3)	56 (26.9)	68 (20.7)	36 (23.2)
Lidocaine (SD)	16 mm (20.2)	32 (20.2)	61 (20.5)	29 (24.7)
p Value	**0.03**	**0.03**	0.13	0.52

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