



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

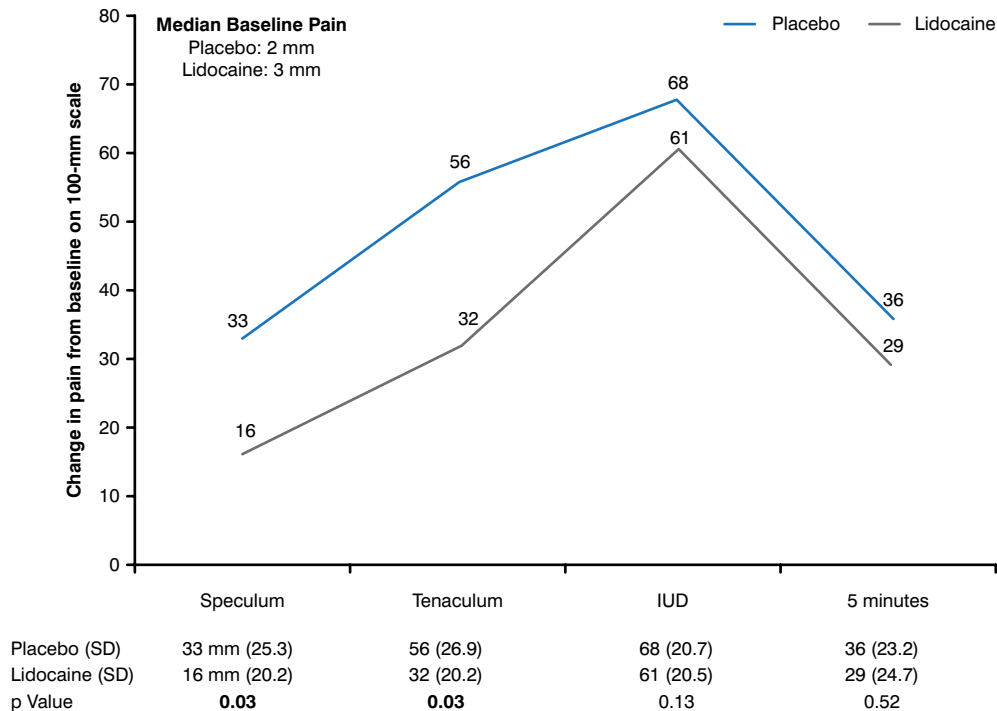
Rachel Becker Rapkin, MD, MPH, Morsani College of Medicine, University of South Florida, and University of Pittsburgh Medical Center, Pennsylvania, USA, presented results from a randomized clinical trial, demonstrating that self-administered lidocaine gel does not significantly reduce the pain associated 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



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The median pain score (Figure 1) was not different between baseline and IUD insertion in the lidocaine and placebo groups (61 mm vs 68 mm;  $p=0.13$ ), and 5 minutes after speculum removal (29 mm vs 36 mm;  $p=0.52$ ); however, differences were significant at the time of speculum placement (16 mm vs 33 mm;  $p=0.03$ ) and tenaculum placement (32 min vs 56 mm;  $p=0.03$ ).

At the 1-week follow-up phone call, 84% of women in the lidocaine group and 90% of women in the placebo group were somewhat or very satisfied with their IUD placement, and 83% and 93%, respectively, would probably or definitely recommend the IUD to a friend.

Prof. Rapkin concluded that although self-administered vaginal lidocaine does not reduce pain with IUD insertion in nulliparous women, it does significantly decrease pain after speculum and tenaculum placement and therefore may be used prior to gynecological procedures involving these instruments.

## Monozygotic Twinning Risk Increases With Day 5 Embryo Transfer and Assisted Embryo Hatching

Written by Nicola Parry

Jessica R. Kanter, BS, Emory University, Decatur, Georgia, USA, presented results from an 11-year study showing an increased incidence of monozygotic twin pregnancies over the past decade in association with the use of assisted reproductive technology (ART) [Kanter JR et al. *Obstet Gynecol* 2014]. Results also showed that Day 5 embryo transfer and assisted embryo hatching are associated with an increased risk of monozygotic twinning.

The use of ART has increased dramatically in recent decades, making pregnancy possible for many infertile couples. However, the use of ART has also been associated with a marked rise in the rate of multiple births in the United States, with the incidence of twin births almost doubling from 1971 through 2009 [Kulkarni AD et al. *N Engl J Med* 2013].

When compared with that of traditional fertility, monozygotic twinning is more common after infertility treatment; however, very little is known about the mechanisms involved or the factors contributing to its occurrence. Kanter and colleagues conducted a large population-based surveillance study to examine trends of monozygotic twinning in ART and to determine its association with transfer factors.

The study included 392 136 pregnancies resulting from fresh nondonor embryo transfers that were reported to the Centers for Disease Control and Prevention's National ART Surveillance System between 2000 and 2011.

Data were evaluated to examine trends of monozygotic twin pregnancies, defined as those in which the number of fetal heart tones on first-trimester ultrasound exceeded the number of embryos transferred. The results were subsequently compared with data for singleton pregnancies (1 fetal heart tone present) and other multiple-gestation pregnancies (>1 fetal heart tone present but not more than number of embryos transferred). Adjusted risk ratios (ARRs) were calculated for monozygotic twinning in association with assisted embryo hatching for singleton and other multiple-gestation pregnancies.

The results showed a significant increase in the incidence of monozygotic twinning after ART from 2000 through 2011 ( $p<0.001$ ), with a higher incidence in Day 5 embryo transfers compared with Day 3 (1.72% vs 0.48%).

Monozygotic twinning was associated with assisted hatching among Day 3 embryo transfers with singleton pregnancies (ARR, 2.19; 95% CI, 1.93 to 2.48) and other multiple-gestation pregnancies (ARR, 2.27; 95% CI, 2.00 to 2.57) and among Day 5 embryo transfers when compared with other multiple-gestation pregnancies (ARR, 1.18; 95% CI, 1.05 to 1.32).

The results show an increased incidence of monozygotic twin pregnancies after ART over the past decade. They also show that Day 5 transfer and assisted hatching are associated with an increased risk of monozygotic twinning.

Kanter concluded that the rising incidence of monozygotic twinning in association with ART warrants a closer look. Prospective trials are still needed.

## Similar Outcomes Among Women Treated With 12-Hour Compared With 24-Hour Postpartum Magnesium Sulfate for Preeclampsia

Written by Toni Rizzo

Magnesium sulfate is an effective therapy for preventing or stopping seizures in pregnant women with preeclampsia. Although the standard duration of therapy is for 24 hours postpartum, the optimal length is controversial. Few studies have investigated the efficacy of a shortened duration of magnesium sulfate therapy. The objective of this study, presented by Nicole V. Leal, Instituto Paraibano de Pesquisa, Paraibo, Brazil, was to assess the effects of 12 hours of magnesium sulfate compared with 24 hours of treatment in postpartum women with severe preeclampsia [Leal V et al. *Obstet Gynecol* 2014].

A total of 120 postpartum women with severe preeclampsia were enrolled in this open-label, randomized clinical trial. The women were randomized to therapy with