A randomized controlled trial of 2% lidocaine gel for IUD insertion

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Executive Summary

The intrauterine device is a long-acting, highly effective, reversible contraceptive that may be underutilized due to fear of pain during insertion. To date, in clinical trials, misoprostol, nonsteroidal anti-inflammatory drugs, paracervical block, and 1 mL of intracervical 2% lidocaine gel have been found to be ineffective.

We conducted a clinical trial with 145 women who were using the IUD for the first time to evaluate the efficacy of 6 mL of 2% lidocaine gel applied to the cervix (the opening to the uterus) in reducing IUD insertion pain. Half of the group received the 2% lidocaine gel and half of the group received a placebo or inert gel in a random fashion.

Of 145 women, 73 were randomized to placebo and 72 to 2% lidocaine gel. The gel was applied to the cervix in two areas and 3 minutes elapsed prior to starting the IUD insertion. The groups were similar in age, race/ethnicity, body mass index, number of prior deliveries, breastfeeding status, timing of IUD insertion, uterine position, anticipated pain, self-rated pain tolerance, and history of painful periods.

There was no significant difference between the two groups in pain measured at speculum placement in the vagina, tenaculum placement on the cervix, and IUD insertion in the uterus. The average pain scores were 36.7 in the placebo group and 35.2 in the lidocaine group out of 100 during IUD insertion. Therefore, 6 mL of cervical 2% lidocaine gel did not reduce pain during tenaculum placement or IUD insertion.