

CASE AND COMMENTARY: PEER-REVIEWED ARTICLE

How Should IUD Placement Pain Be Described and Managed?

Veronica Hutchison, MD and Eve Espey, MD, MPH

Abstract

This commentary on a case considers recent publicity about pain with intrauterine device insertion and clinically and ethically relevant factors that influence pain and pain management strategies for this effective contraceptive method.

Case

JJ, an 18-year-old nulliparous patient, presents to discuss contraceptive options. JJ is interested in an intrauterine device (IUD) but has seen videos on social media of teenagers talking about their painful experiences with IUD insertion.¹ Dr W is an obstetrician-gynecologist who usually deftly inserts an IUD in about 5 minutes and is aware of conflicting evidence about risks, benefits, and effectiveness of analgesia for the procedure.^{2,3,4} Dr W has reviewed both the 2009 Cochrane Review⁵ and its 2015 update,³ which call for improved availability of analgesia interventions but leave uncertainty about effective options that could constitute an analgesia “standard of care.”

Dr W has observed mentors and colleagues describe IUD placement to patients as causing some “pressure or cramping, but not sharp pain.” But Dr W has observed patients with moderate to severe pain during IUD placement and knows from the literature that discussing pain in advance may increase patients’ pain and anxiety.⁶ Dr W feels that withholding such information, even if it could increase procedural pain and anxiety, is unethical. Dr W considers how to communicate with JJ about IUD insertion and whether to administer analgesia prior to the procedure.

Commentary

IUDs have both contraceptive and noncontraceptive benefits. IUDs are 99% effective in pregnancy prevention at 1 year⁷ and require only a single act of motivation and insertion for many years of use.⁸ Copper IUDs provide highly effective contraception for up to 12 years; the most common hormonal IUD provides 3 to 6 years of similarly effective contraception.⁷ For postcoital pregnancy prevention, insertion of a copper IUD no more than 5 days after unprotected sex is more effective than emergency contraception pills. Hormonal IUDs can also be effective for emergency contraception: a single trial showed noninferiority of the levonorgestrel IUD to the copper IUD for postcoital contraception.⁹ Additionally, hormonal IUDs are approved by the US Food and Drug Administration to

treat heavy menstrual bleeding in women who use them for contraception, and they are frequently recommended for off-label use for **reducing bleeding problems and dysmenorrhea** in women who do not need contraception.¹⁰

IUD use has increased dramatically over the last 15 years for all women and especially younger women. In 2015-2017, 14% of women between the ages of 15 and 44 who were using contraception utilized an IUD.⁷ Women aged 25 to 34 years had the highest IUD usage (16%). Clinicians have also become more receptive to facilitating IUD use in younger nulliparous patients. In 2013, only 63% of obstetricians and gynecologists (OB/GYNs) thought IUDs were appropriate for nulliparous women and 43% for adolescents.⁷ In contrast, a 2017 survey showed that 92% of OB/GYNs offered IUDs to patients under 21 years of age.⁷

While the expansion of eligible candidates for safe, effective, long-acting contraception has improved access, that expansion has had unanticipated consequences. Although higher risk of insertion pain is not a contraindication to IUD use, pain with IUD placement is common in nulliparous patients.⁴ As more young, nulliparous women choose an IUD, social media stories of patients' personal, negative, and painful experiences with IUD insertions abound,¹ resulting in heightened professional awareness of the need to address the issue. The purpose of this paper is to discuss current evidence of the effectiveness of pain mitigation with IUD insertion and, given the lack of robust evidence, to encourage patient-centered conversations to help guide contraception and pain management decision-making.

IUD Insertion Pain Management

In IUD insertion, pain occurs with placement of a tenaculum (an instrument to steady the cervix), in passing a uterine sound (an instrument to measure the depth of the uterus), and in inserting the IUD through the internal cervical os.

There is currently no standard of care for pain management with IUD placement in nulliparous adult women, as effective, evidence-based interventions for pain relief are lacking. Evidence suggests lack of effectiveness of misoprostol for routine use in reducing pain in passage of instruments and the IUD through the internal os and in reducing pain associated with IUD insertion.^{2,3} While nonsteroidal anti-inflammatory drugs, such as oral naproxen sodium and ketorolac, do not reduce pain during IUD insertion, they do reduce pain after insertion.^{2,3,4} Oral tramadol (an opioid) has been shown to result in a clinically significant difference in pain immediately after insertion compared with a placebo.² Some lidocaine formulations may lessen pain during or shortly after IUD insertion in specific groups, although the evidence is based on single studies.³ Given that systematic reviews of topical lidocaine (gel, cream) and injected lidocaine in the form of a paracervical block show mild effectiveness in reducing pain with both tenaculum and IUD placement,³ the combination of a topical anesthetic and an injected block may also be helpful in reducing pain throughout the procedure. Overall, the evidence is scanty and inconclusive; further studies should be undertaken.^{2,3,4} Indeed, the American College of Obstetricians and Gynecologists states that more research is needed to define truly effective interventions.¹¹

Evidence is also lacking on the effectiveness of nonpharmacological interventions to manage anxiety and pain during IUD insertion. A systematic review showed no pain reduction among nonpharmacological interventions, but the studies were considered to be of poor quality.² Nevertheless, there is some evidence of effectiveness of

nonpharmacological interventions. Informational preparation may lower patients' perception of pain, and "verbicaine," such as reassurance and distraction during the insertion procedure, may reduce anxiety.¹² Inhaled lavender was shown to lower anxiety during IUD insertion in a randomized controlled trial but did not decrease pain after IUD insertion.² Overall, the conclusions of several systematic reviews are inconclusive and demonstrate the need for further research on effective pain management strategies for IUD insertion.

Recommendations

A recent update to the Centers for Disease Control and Prevention US Selected Practice Recommendations significantly changed the guidance on pain management for IUD insertion.¹³ While acknowledging that paracervical block and topical local anesthetics "might" reduce pain with IUD insertion, the major change in the recommendations is the strong focus on clinicians individualizing the informed consent **conversation with each patient** by eliciting patients' concerns and prior experiences and exploring their expectations and options, recognizing that "the experience of pain is individualized and might be influenced by previous experiences including trauma and mental health conditions, such as depression or anxiety."¹³

When approaching a nulliparous patient presenting for IUD insertion, it is important to perform the following steps to provide patient-centered care.

Incorporate prior experiences in the patient history. Collect a history focused on prior experiences that may have an impact on IUD insertion pain, such as history of pain with pelvic exams or other gynecologic experiences, intimate partner or sexual violence, anxiety and depression, and high level of anticipated pain.

Incorporate pain in informed consent. Clinicians should alert patients to the discomfort of IUD insertion and, depending on the patient's wishes, discuss the range of pain relief options—from no intervention to topical analgesia with or without paracervical block and advanced sedation options, including oral sedation, moderate intravenous (IV) sedation, and general anesthesia. Some evidence shows that interventions that enhance empathy may reduce patient pain.¹⁴ When discussing pain control options, clinicians should engage patients in a shared decision-making conversation about the range of pain management options, expectations of pain, and expectations of the procedure (eg, length of time, greatest pain experienced) and elicit their values and preferences.

As part of shared decision-making, clinicians should proactively address patients' concerns about pain control and individualize interventions. With patients who are anxious but do not voice a high level of concern, communication interventions may have a small but significant effect on acute pain.¹⁴ Clinicians may also offer such patients topical anesthetic, paracervical block, or oral sedation, although these options are associated with only small reductions in pain. In a study of mostly nulliparous patients who received some form of local anesthetic prior to IUD insertion, 42% experienced "minimal discomfort/nothing" and 41% were "uncomfortable." The pain was acceptable to most survey respondents.¹⁵

Some patients require advanced sedation options. Patients who may need these advanced options include those with previous trauma with gynecological procedures, a history of sexual assault, adverse childhood experiences, or developmental delay. Conversations about prior experiences with **pelvic exams** and gynecological procedures

may help determine patients' comfort and readiness for IUD insertion. More intensive pain control options include IV sedation if that level of sedation is available in the clinic or if clinicians can refer patients to centers that provide outpatient IV sedation. Similarly, some procedures may be performed in an operating room under deep sedation. However, IV sedation has not been extensively studied¹⁶ as it is resource intensive, given the regulatory burden of stocking opioids, the need for a ride home, and the need for additional nursing staff resources. Since IV sedation is not commonly offered, clinicians should consider identifying referral centers for the subset of patients who need that care. Regardless of the patient's choice, clinicians should create a supportive environment and ensure that the patient knows they have control over the procedure and can request that it be paused or abandoned at any time.¹⁴

Avoid a "one-size-fits-all" approach to pain management. Some patients may not want any pain control modalities. Others—those who have difficulty with speculum exams, are anxious, have a history of trauma, have chronic pelvic pain or sexual pain, or are postpartum—experience more pain with IUD insertion and may not experience adequate control with analgesia alone.⁴ Prior cesarean delivery, dysmenorrhea, a high degree of expected pain, anxiety, and larger size of the insertion tube may play a role in perceived pain from IUD insertion.⁴ While the merits of erring on the side of administering analgesia prior to IUD placement are unknown, the drawbacks are clear: clinically, analgesia may not be desired by the patient and may not be effective; therefore, ethically, the clinician should leave the decision for analgesia or lack of it to the patient. It is ethically reasonable for a patient to receive counseling on pain management options and to choose none of those options.

IUD Access

The effectiveness and safety of the IUD convinced many clinicians that it is the best form of contraception, leading to patients' perceptions of directive and coercive counseling and pressure to adopt the method.¹⁷ This phenomenon of implicit pressure has been documented in a qualitative study of contraceptive decision-making¹⁸ and highlights the importance of nonjudgmental, nondirective counseling in shared decision-making. On the flip side, women with low income seeking contraception from community health centers continue to experience barriers in attempting to access IUDs.⁷

Moreover, there are inequities in pain management in IUD insertion. Research demonstrates racial bias and inequity in pain management in the United States,¹⁹ a phenomenon that must be acknowledged and addressed with an equity lens. Future studies examining pain management with IUD insertion should include diverse participants with a focus on equitable outcomes. Expectations also play a role in the degree of pain patients consider acceptable and suggest the importance of understanding patients' past experiences in shared decision-making processes. Another factor contributing to inequity in pain management is cost. Many patients access care at Title X-funded clinics that provide contraception for women with low income. Pain management in IUD insertion, particularly with opioids, may incur additional expense for clinics, given the regulatory burden. The requirement to offer expensive and currently nonevidence-based pain management options could create yet another barrier to IUD access in already resource-poor settings. Additional barriers that limit IUD access include the lack of knowledge, training, and confidence among health care professionals regarding IUD insertion.²⁰ Given that there are few contraindications to IUD placement, further efforts should be made to educate health care professionals on the risks and benefits of IUDs.

Conclusion

Clinicians should respect patient autonomy and focus on patient-centered counseling and shared decision-making when discussing and implementing pain management strategies for IUD insertion, thereby promoting patients' satisfaction with the procedure and with their interactions with the health care system.

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Veronica Hutchison, MD is a resident physician in obstetrics and gynecology at Oregon Health and Science University in Portland. She is passionate about reproductive health and reproductive justice and has participated in numerous activities to promote patient-centered care.

Eve Espey, MD, MPH is chair of the Department of Obstetrics and Gynecology and serves as complex family planning subspecialist faculty at the University of New Mexico in Albuquerque. She has a strong interest in expanding access to reproductive health in collaboration with community partners.

Editor's Note

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The people and events in this case are fictional. Resemblance to real events or to names of people, living or dead, is entirely coincidental. The viewpoints expressed in this article are those of the author(s) and do not necessarily reflect the views and policies of the AMA.