

THE IMPACT OF INTRAOPERATIVE LIDOCAINE INFUSION ON POSTOPERATIVE RECOVERY AFTER HYSTEROSCOPY: A RANDOMIZED CONTROLLED TRIAL

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November 2024

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Introduction: Hysteroscopy is a surgical method which is frequently used for the diagnosis and treatment of intrauterine pathologies including adhesions, polyps and endometrial hyperplasia. This procedure can be performed at the office without anesthesia or at the surgery room under anesthesia.

Purpose: This study aims to investigate the efficiency of intraoperative lidocaine infusion, which is frequently preferred for surgical procedures, in reducing postoperative pain, nausea, and vomiting, as well as the need for opioid analgesics and anti-emetics.

Methods: This is a prospective review of 150 patients who have consecutively undergone elective hysteroscopy for various indications. The patients aged <18 years and >65 years, the patients with body mass indices $< 18.5 \text{ kg/m}^2$ or $\geq 25 \text{ kg/m}^2$, the patients with American Society of Anesthesiologists physical status $>\text{II}$, the patients with a history of allergy to local anesthetics, the patients with chronic pain syndromes, the patients who had long-term analgesic and sedative use, the patients with opioid dependence, and the patients severe arrhythmia, organic heart disease, and mental or neurological disorders were excluded.

The participants were randomly assigned to the study group (lidocaine) or the control group (saline) using a computer-generated randomization sequence. Thus, 75 patients were allocated to either research or control groups. The patients in the research group received 1% intravenous lidocaine at a dose of 0.15 ml/kg before the initiation of general anesthesia and the infusion of 1% lidocaine would be continued at a dose of

0.2 ml/kg/hour throughout the procedure. In the control group, 0.9% saline solution would be used instead of lidocaine. Both the patients and the healthcare providers administering the interventions were blinded to the allocation.

The primary endpoint was the postoperative pain assessed by Visual Analog Scale (VAS) at 30th minute, 60th minute, 4th hour, and 24th hour. Secondary endpoints included nausea, vomiting, need for analgesic and anti-emetic drugs during the postoperative period.