

Effect of Splash Block using Lidocaine in Dogs Undergoing Ovariohysterectomy

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Abstract

Twelve dogs undergoing ovariohysterectomy were randomly assigned to receive either 8 mg/kg of lidocaine 1% or an equal volume of NaCl 0.9% as the splash block. Following celiotomy and prior to manipulation of ovarian pedicles, lidocaine or 0.9% NaCl was instilled onto the mesovarium by using a dog urinary catheter. Pulse rates, respiratory rates, systemic arterial pressures and oxihemoglobin saturation levels were measured throughout the surgery at pre-determined time points. Ketamine-diazepam supplemental boluses (0.05 mL/kg, intravenously) were administered when there were movements, vocalization, increased in palpebral reflexes and jaw tones. There was no difference between the lidocaine-treated and the control group in the cardiopulmonary parameters. All animals recovered and were returned to their owners without complications. Only 2 dogs in the lidocaine group, compared to 5 dogs in the control group required supplementary dose of ketamine-diazepam to complete surgery. The use of 8 mg/kg lidocaine 1% as splash block in addition to the routine anesthetic protocol was safe and did not cause suppression to the cardiopulmonary parameters. It significantly reduced the need for supplementary dose of ketamine-diazepam.

Keywords: Local anesthesia, lidocaine, splash block, ovariohysterectomi