

## Lidocaine-Bupivacaine Block Improve Analgesia in Cats Undergoing Orchiectomy

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**Abstract :** The analgesic effects of lidocaine-bupivacaine block in cats undergoing routine orchiectomy were determined in this controlled, randomized, and blinded study. Twelve cats were randomly assigned to two groups. Cats in local block group received subcutaneous infiltration of 1 mg/kg of 2% lidocaine and 1 mg/kg of 0.5% bupivacaine into the scrotal sac. Cats in control group received equivolume of saline. Both groups were induced with mixture of ketamine (15 mg/kg) and acepromazine (0.1 mg/kg) intramuscularly and maintained on sevoflurane via facemask. Non-invasive blood pressures (BP), heart (HR), and respiratory rate (RR) were measured intra-operatively at specific events. Post-operatively, all cats received meloxicam, 0.2 mg/kg subcutaneously. Pain scores were determined at 4, 8, and 24 hours postoperatively. Mechanical pressure thresholds (MPT) at the perineum and metatarsus were determined at 2, 4, 8, and 24 hours postoperatively. Intra-operatively, the BP and HR tended to be higher in the control group. The increment in HR peaked during traction and autoligation of the spermatic cord in the control group. There was no treatment difference in RR. Post-operatively, pain scores in the group given local blocks were lower than the control group at 4 hour post-operation. There was no treatment difference in the post-operative HR, RR, BP and MPT values. In conclusion, subcutaneous infiltration of lidocaine-bupivacaine into the scrotal sac before orchiectomy improved intra-operative hemodynamic stability and provided better analgesia up to 4 hours post-surgery.

**Keywords :** analgesia, bupivacaine, cat, lidocaine, local block, orchiectomy

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