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Comparison of four postoperative pain evaluation scales in dogs undergoing ovariohysterectomy

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Abstract

This study aimed to compare four pain scales, including simple descriptive scales (SDS), visual analog scale (VAS), the University of Melbourne Pain Scale (UMPS), and the short form of Glasgow Composite Pain Scale (GCPS-SF) to assess postoperative pain in dogs that underwent ovariohysterectomy (OHE). Twenty-two female mixed-breed dogs were allocated into three treatments to receive incisional (n=7), transverse abdominis plane (TAP, n=7), and rectus sheet (RS, n=8) blocks. After premedication with acepromazine (0.05 mg/kg) and morphine (0.5 mg/kg), anesthesia was induced (4 mg/kg) and maintained (0.4 mg/kg/min) with propofol. Each dog randomly received one analgesic method, and then OHE was performed. Postoperative analgesia was evaluated up to 6 hours after the operation with the above-mentioned pain scales. The results showed that with the GCPS-SF, the scores at 4, 5, and 6 hours after surgery in the Incisional and RSB were higher than the baseline. In the UMPS, in the RSB, at 2, 3, 4, 5, and 6 hours after surgery, the pain score was significantly higher than the baseline. With the VAS, the pain score in the RSB was higher than the baseline at 3, 4, 5, and 6 hours after surgery. In the SDS, the Incisional and RS pain scores were higher at 3, 4, 5, and 6 hours after surgery than the baseline values. In conclusion, the UMPS might detect pain earlier and is more sensitive than the other three methods. Further studies should be done to confirm the results.

Key words: Glasgow Composite Measuring Pain Scale, University of Melbourne Pain Scale, Visual Analog Scale, Simple Descriptive Scale, Ovariohysterectomy

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